



November 22, 2017

DRAFT

Ms. Ruth Winsor, Project Manager
Texas Commission on Environmental Quality
VCP-CA Section, MC-221
12100 Park 35 Circle
Austin, Texas 78753

RE: Garage Assessment
1714 Vaughn Boulevard
Fort Worth, Texas
VCP No. 2768, CN604923888, RN101550473
W&M Project No. 1483.003.005

Dear Ms. Winsor:

W&M Environmental Group, LLC. (W&M) performed a limited assessment of the garage building at the property located at 1714 Vaughn Boulevard in Fort Worth, Tarrant County, Texas (Site) in response to the Texas Commission on Environmental Quality's (TCEQ's) review of the Affected Property Assessment Report (APAR) and Response Action Completion Report (RACR), both dated January 2016. The TCEQ response letter dated July 1, 2016 contained five comments on the submitted documents, one of which requested additional information regarding the interior of the garage located in the northwest portion of the Site.

W&M responded to TCEQ's July 2016 comments in a letter dated October 11, 2016. In correspondence dated February 15, 2017, TCEQ acknowledged the submittal and agreed with the proposal to conduct additional assessment activities in the area of the garage.

W&M completed additional assessment activities consisting of the installation of soil borings and one permanent groundwater monitoring well. W&M collected soil samples and a groundwater sample to assess and delineate potential impacts associated with releases from the drums. The results of the investigation are presented in this letter report. The Site and surrounding area are depicted in **Figure 1**, and the sampling locations are shown in **Figure 2** (overall Site) and **Figure 3** (details in garage area). A photographic log of the investigation activities is presented in **Attachment A**.

ADDITIONAL ASSESSMENT ACTIVITIES

A Site inspection of the garage identified the presence of one 55-gallon drum labeled "Termide" (an emulsifiable insecticide containing the pesticides chlordane and heptachlor), and a second drum labeled "motor oil" located in the western portion of the garage. Limited staining was observed near two drum rings in the eastern end of the garage, one extending a short distance to the east exterior wall. It is believed that the rings represent the former locations of the two drums relocated to the western end of the garage.

On May 2, 2017, W&M advanced two soil borings (B-5 and B-6) using a stainless-steel hand auger on the exterior of the garage immediately adjacent to the west and east walls. The soil analytical results identified the organochlorine pesticide (OCP) dieldrin in the soil sample collected from soil boring B-5, which was installed on the east side of the garage, at a concentration that exceeds the associated residential assessment level (RAL).

On July 28, 2017, W&M advanced five additional soil borings in the vicinity of B-5, one of which was converted to a permanent groundwater monitoring well, to horizontally and vertically delineate the dieldrin-impacted soil. Soil borings B-7, B-8, B-9, and B-10 were advanced to total depths ranging from 3 to 10 feet below ground surface (bgs) using a track-mounted direct-push drilling rig equipped with direct-push technology, or a stainless-steel hand auger. Soil boring B-8 was advanced in a generally central location of the garage, at the location where the 55-gallon drums were staged prior to disposal. Monitoring well MW-5 was installed in close proximity and downgradient of B-5 using a drilling rig to evaluate the groundwater for the presence of OCPs. MW-5 was advanced to a depth of 23 feet bgs, where auger refusal was encountered on weathered limestone, and then over-drilled using 7-inch diameter solid-stem augers to a total depth of 25 feet to facilitate the installation of the well screen.

The subsurface conditions encountered during the additional assessment activities consisted of three to five feet of clayey fill material with some gravels. Native soil below the fill material consisted of clay and silty clay to depths of approximately 22 feet bgs where weathered limestone was encountered. Monitoring well MW-5 was terminated on competent limestone bedrock at a depth of 25 feet. The soil boring logs are provided in **Attachment B**.

Soil Sampling and Analysis

Soil samples from B-7, B-9, B-10, and MW-5 were collected using a Geoprobe® sampler tube with dedicated clear PVC liners, and the soil samples collected from B-5, B-6, and B-8 were collected using a stainless steel hand auger due to limited accessibility for drilling equipment. Soil samples were collected at 2-foot intervals and field screened by headspace readings using a photoionization detector (PID) along with an evaluation of odor and visual indicators of contamination. The PID readings of the soil samples collected from B-6 through B-10, and MW-5 were low or at background ranging from 0.0 to 0.4 parts per million (ppm). PID readings ranged from 0.3 to 7.8 ppm at approximately 4 feet in soil boring B-5, which exhibited the highest concentration of OCPs. In general, the soil samples selected for analysis were based on PID readings and/or changes in lithology.

Soil samples collected from soil borings B-5 and B-6 were analyzed for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260B, OCPs by EPA Method 8081, and total petroleum hydrocarbons (TPH) by Texas Method TX1005. Based on the absence of VOCs and TPH in the samples from B-5 and B-6, the soil samples collected from borings B-7 through B-10, and MW-5 were only analyzed for OCPs. The soil samples were collected in laboratory-supplied glass jars, stored on ice, and submitted to ALS Environmental in Houston, Texas for analysis.

Groundwater Investigation

Monitoring well MW-5 was dry following well installation, which is consistent with previous subsurface investigations that indicated the groundwater-bearing unit (GWBU) is Class 3. W&M attempted to collect a groundwater sample multiple times; however, the well did not produce a sufficient volume of groundwater to allow sample collection until almost one month after installation.

On October 24, 2017, the depth to groundwater was measured at 23.21 feet below the top-of-casing (BTOC) in monitoring well MW-5. A groundwater sample was subsequently collected using a dedicated disposable bailer since there was insufficient water to allow for low-flow purging and sampling. The groundwater sample was collected in laboratory-supplied containers, stored on ice, and submitted to ALS for the analysis of OCPs. Groundwater quality readings were not collected, and the well was not developed due to the low volume of water present in the well casing and slow recharge rate.

Soil Analytical Results

The soil analytical results were compared to the TCEQ Texas Risk Reduction Program (TRRP) soil-to-groundwater Class 3 ($^{GW}Soil_{Class3}$) protective concentration levels (PCLs) and total-soil-combined ($^{Tot}Soil_{Comb}$) PCLs for residential land use. The RAL for this VCP site is the lower of these two PCLs. Soil analytical results are summarized in **revised Table 4D-1** from the January 2016 APAR, and the laboratory analytical data packages are provided in **Attachment C**.

A total of seventeen OCPs were detected in the soil samples analyzed during this assessment. The concentrations were below the applicable RALs except for six OCPs in soil boring B-5. The OCPs that exceeded the RALs in B-5 include aldrin, chlordane, dieldrin, alpha-chlordane, gamma chlordane, and heptachlor epoxide. The concentrations of these compounds are detailed below:

- Dieldrin was detected at a maximum concentration of 61 milligrams per kilogram (mg/kg) at B-5 at a depth of 5 to 6 feet bgs. This concentration exceeds the $^{Tot}Soil_{Comb}$ PCL of 0.15 mg/kg (RAL), the $^{GW}Soil_{Class3}$ PCL of 4.9 mg/kg, and the soil-to-air ($^{Air}Soil_{Inh-v}$) PCL of 32 mg/kg.
- Aldrin was detected at a concentration of 0.76 mg/kg in B-5 (5-6'), which exceeds the associated RAL of 0.05 mg/kg ($^{Tot}Soil_{Comb}$ PCL), but is well below the $^{GW}Soil_{Class3}$ PCL of 10 mg/kg.
- Chlordane was detected at a concentration of 220 mg/kg in B-5 (5-6'), which exceeds the associated RAL of 6.0 mg/kg, but below the $^{GW}Soil_{Class3}$ PCL of 960 mg/kg.
- Alpha-Chlordane was detected at a concentration of 26 mg/kg in B-5 (5-6'), which exceeded the associated RAL of 6.0 mg/kg, but is well below the $^{GW}Soil_{Class3}$ PCL of 960 mg/kg.
- Gamma-Chlordane was detected at a concentration of 60 mg/kg in B-5 (5-6'), which exceeded the associated RAL of 7.4 mg/kg, but is well below the $^{GW}Soil_{Class3}$ PCL of 4,100 mg/kg.
- Heptachlor epoxide was detected at a concentration of 2.6 mg/kg in B-5 (5-6'), which exceeded the associated RAL of 0.24 mg/kg, but below the $^{GW}Soil_{Class3}$ PCL of 5.8 mg/kg.

TPH and VOCs were not detected above the laboratory sample detection limits (SDLs) in the soil samples analyzed during this investigation.

Groundwater Analytical Results

The groundwater analytical results were compared to the TCEQ TRRP Class 3 groundwater ($^{GW}GW_{Class3}$) PCLs for residential land use. The groundwater analytical results are summarized in **Table 5B-1**, which includes the OCP data submitted in the January 2016 APAR, and the laboratory analytical report is provided in **Attachment C**.

The laboratory analysis of sample MW-5 identified six OCPs, including dieldrin, 4,4-DDT, endosulfan I, heptachlor epoxide, alpha-chlordane, and gamma-chlordane. However, the concentrations were below the associated $^{GW}GW_{Class3}$ PCLs. All other OCPs were below the laboratory SDLs.

DRUM DISPOSAL

On May 2, 2017, W&M oversaw the removal and proper off-Site disposal of the two 55-gallon drums from the interior of the garage. Please refer to **Attachment D** for a copy of the associated waste manifest.

CONCLUSIONS

W&M conducted additional assessment activities, which included soil and groundwater sampling, to further evaluate the Site in response to the TCEQ letter dated July 1, 2016. The additional assessment focused on the on-Site garage, and historical storage of pesticides and petroleum products in the structure. A summary of our findings and conclusions is presented below:

- Six OCPs exceeded the applicable RALs in surface soil near the garage, specifically at soil boring B-5, which was located on the east exterior of the garage and in close proximity to interior drum staining which apparently seeped across the slab and reached exterior surface soils. The OCPs that exceeded the RALs included aldrin, chlordane, dieldrin, alpha-chlordane, gamma chlordane, and heptachlor epoxide. Additionally, dieldrin exceeded the associated ^{Air}Soil_{Inh-v} PCL.
- Six OCPs including dieldrin, 4,4-DDT, endosulfan I, heptachlor epoxide, alpha-chlordane, and gamma-chlordane were detected in the groundwater sample collected from monitoring well MW-5. However, the concentrations were below the associated ^{GW}GW_{Class3} PCLs. All other OCPs were below the laboratory SDLs.
- No VOCs or TPH were detected above the laboratory SDLs in the soil samples analyzed. Because of the results of these soil analyses, the groundwater sample collected from MW-5 was not analyzed for VOCs or TPH.

The analytical results indicate localized surface soil in the immediate vicinity of soil boring B-5 exhibits concentrations of OCPs that exceed the associated RALs. Dieldrin was the only OCP identified that exhibited a soil concentration that exceeded the associated ^{GW}Soil_{Class3} PCL. Additionally, the maximum dieldrin concentration of 61 mg/kg, exceeds the associated ^{Air}Soil_{Inh-v} PCL. The analytical results indicate that although OCPs are present in the underlying groundwater, the associated concentrations are below the ^{GW}GW_{Class 3} PCLs.

The exceedances of OCPs in surface soil that were identified at soil boring B-5, which is located on the east side of the garage, have been horizontally delineated based upon the soil samples from borings within 6 feet of B-5 that do not contain COCs above RALs. **Figure 3** has been annotated to depict the PCL Exceedance Zone for OCPs in soil. For purposes of this assessment, we have assumed that the entire vadose zone at B-5 is affected. Although, OCPs were detected in the groundwater sample collected from MW-5, the concentrations were well below the associated RALs.

In accordance with TRRP guidelines, the impacted surface soil would need to be excavated and disposed off-Site, or capped to prevent potential exposure and leaching to groundwater. Depending on the selected closure strategy, the VCP Applicant will submit a Self-Implementation Notice (SIN) or Response Action Plan (RAP).

We trust that this assessment addresses TCEQ's comment in regard to the assessment of the garage area. If you have any questions or need additional information, please feel free to contact W&M at 972-516-0300.

Ms. Ruth Winsor – TCEQ Remediation Division
November 22, 2017
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Very truly yours,
W&M ENVIRONMENTAL GROUP, LLC

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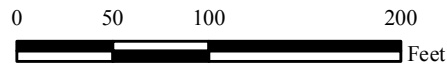
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FIGURES



Legend

 Approximate Site Boundary



SCALE: 1"=100'

Source: Tarrant Appraisal District, Google Earth (10/2014)

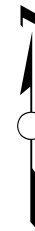


Figure 1
On-Site Property Map
 1714 Vaughn Boulevard
 Fort Worth, Texas





Legend

- Approximate Site Boundary
- Former Tankhold
- Soil Stain and Dead Vegetation
- Boring/Monitoring Well
- + Monitoring Well
- Hand-Auger Sample Location
- Drum
- ⊕ Pole-Mounted Transformer
- Overhead Electrical Line

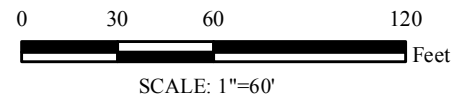
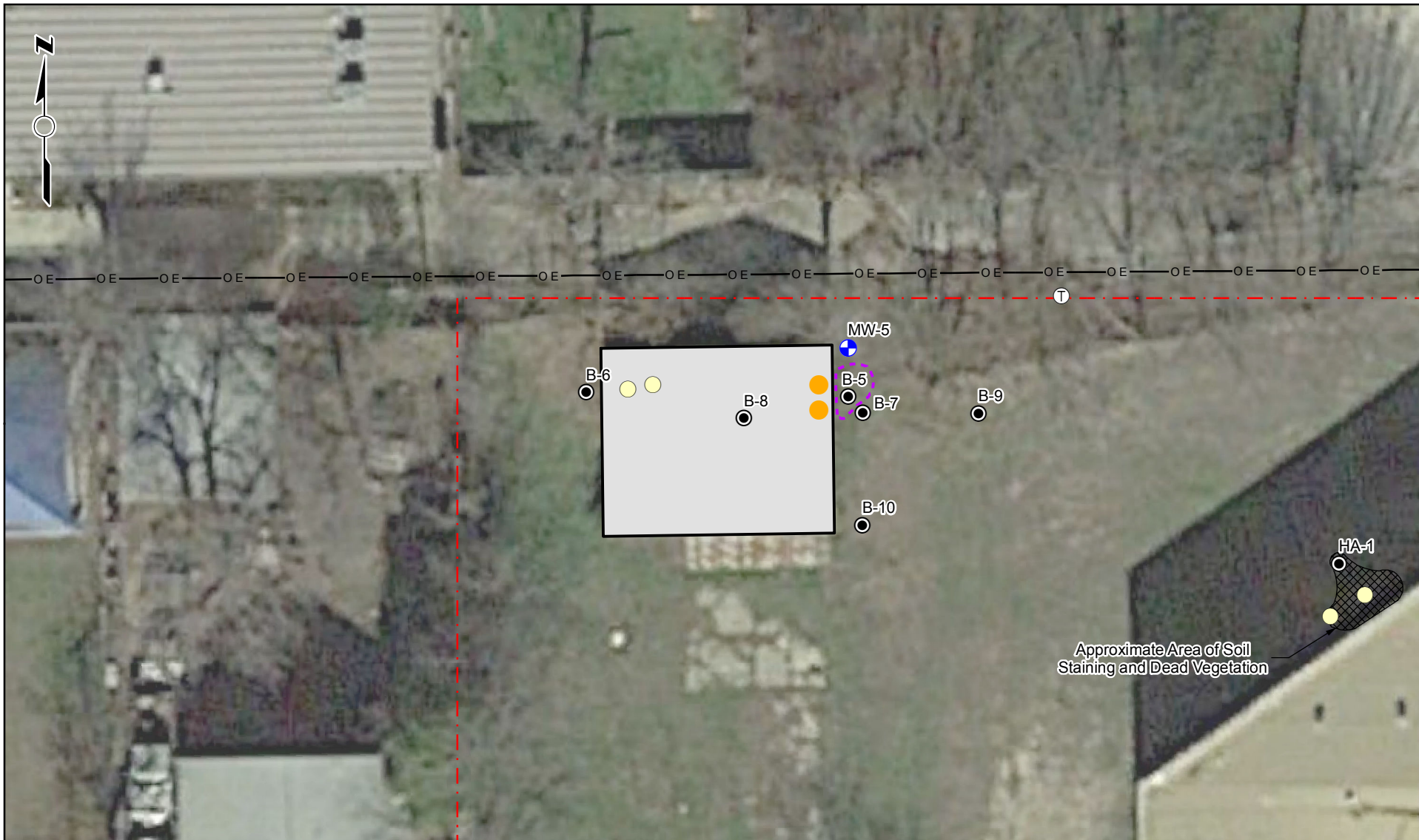


Figure 2
Site Layout and Sample Locations
 1714 Vaughn Boulevard
 Fort Worth, Texas



Source: Tarrant Appraisal District, Google Earth (01/2017)



Legend

Approximate Site Boundary	Soil Boring
PCL Exceedance Zone for Pesticides	Drum
Garage	Drum Ring
Soil Stain and Dead Vegetation	Pole-Mounted Transformer
Monitoring Well	Overhead Electrical Line

Source: Tarrant Appraisal District, Google Earth (01/2017)

0 10 20 40 Feet

SCALE: 1" = 20'

Figure 3
Garage Detail & PCLE Zone
 1714 Vaughn Boulevard
 Fort Worth, Texas



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TABLES

TABLE 4D-1 (Revised)
SOIL DATA SUMMARY

1714 Vaughn Boulevard
Fort Worth, Texas

SAMPLE ID ¹	GW ² Soil _{Class3} Tier 1 Res. PCL ²	Tot ³ Soil _{Comb} Tier 1 Res. PCL ³	Air ⁴ Soil _{Lab-V} Tier 1 Res. PCL ⁴	B-1/MW-1 (7.5-10') 7/9/2015	B-2/MW-2 (7.5-10') 7/9/2015	B-3/MW-3 (7.5-10') 7/9/2015	B-4/MW-4 (12.5-15') 7/9/2015	HA-1 (0-0.5') 8/4/2015	CS-01 (0-1') 9/15/2015	CS-02 (0-1') 9/15/2015	CS-03 (0-1') 9/15/2015	CS-04 (0-1') 9/15/2015	CS-05 (2.75-3') 11/3/2015	SS-01 (0-1') 1/5/2016	SS-02 (0-1') 1/5/2016	SS_03 (0-1') 1/5/2016	B-5 (3-4') 5/2/2017	B-5 (5-6') 5/2/2017	B-6 (1-2') 5/2/2017	B-7 (6-7') 7/28/2017	B-8 (2.5-3') 7/28/2017	B-9 (5-6') 7/28/2017	B-10 (5-6') 7/28/2017	MW-5 (4-5') 7/28/2017
2-Butanone	2,900	40,000	200,000	<0.0016	<0.0014	<0.0014	<0.0016	0.084	---	---	---	---	---	---	---	---	<0.0015	---	<0.0016	---	---	---	---	---
4-Methyl-2-pentanone	490	5,900	58,000	<0.0025	<0.0022	<0.0021	<0.0024	0.29	---	---	---	---	---	---	---	---	<0.0023	---	<0.0025	---	---	---	---	---
Acetone	4,300	66,000	600,000	<0.0039	0.049	<0.0032	<0.0038	0.22	---	---	---	---	---	---	---	---	<0.0023	---	<0.0025	---	---	---	---	---
Chloroform	100	16	16	<0.00062	<0.00056	<0.00052	<0.00061	0.021	---	---	---	---	---	---	---	---	<0.00057	---	<0.00062	---	---	---	---	---
Methylcyclohexane	1,000,000	41,000	46,000	<0.0015	0.015	<0.0012	<0.0015	<0.0013	---	---	---	---	---	---	---	---	<0.0011	---	<0.0012	---	---	---	---	---
All other VOCs	Varies	Varies	Varies	<SDL	<SDL	<SDL	<SDL	<SDL	---	---	---	---	---	---	---	---	<SDL	---	<SDL	---	---	---	---	---
OCP (mg/kg) ⁶																								
4,4'-DDD	1,300	14	---	---	---	<0.00057	---	0.29 JP	---	---	---	---	---	---	---	---	<0.00059	0.038 P	<0.00063	<0.00059	<0.00056	<0.00059	0.0013 J	0.0078
4,4'-DDE	1,200	10	---	---	---	<0.00057	---	0.20 JP	---	---	---	---	---	---	---	---	0.050	3.4	0.0018 J	<0.00059	<0.00056	0.0014 J	0.0011 J	0.0058
4,4'-DDT	1,500	5.4	1,200	---	---	<0.00057	---	0.056	---	---	---	---	---	---	---	---	0.086	<0.00055	0.0028 J	<0.00059	<0.00056	0.0027 J	0.0032 J	0.010
Aldrin	10	0.05	8.3	---	---	<0.00034	---	0.018	---	---	---	---	---	---	---	---	0.0056	0.76	<0.00038	<0.00036	<0.00034	0.0032	<0.00037	<0.00035
alpha-BHC	0.79	0.26	14	---	---	<0.00034	---	0.0041 P	---	---	---	---	---	---	---	---	<0.00035	<0.00033	<0.00038	<0.00036	<0.00034	<0.00035	<0.00037	<0.00035
beta-BHC	2.9	0.93	72	---	---	<0.00034	---	0.0032 P	---	---	---	---	---	---	---	---	<0.00035	<0.00033	<0.00038	<0.00036	<0.00034	<0.00035	<0.00037	<0.00035
Chlordane	960	6.0	1,200	---	---	<2.3	---	<0.0022	---	---	---	---	---	---	---	---	1.1	220	<0.0025	<0.0024	<0.0022	<0.0024	<0.0024	<0.0023
delta-BHC	17	2.9	100	---	---	<0.00023	---	0.0012 JP	---	---	---	---	---	---	---	---	<0.00023	0.0092 P	<0.00025	<0.00024	<0.00022	<0.00024	<0.00024	<0.0023
alpha-Chlordane	74,000	13	4,100	---	---	<0.00023	---	1.0 P	---	---	---	---	---	---	---	---	0.13 P	26 P	0.022 P	<0.00024	<0.00022	0.0023 P	0.0034 P	0.018 P
gamma-Chlordane	4,100	7.4	970	---	---	<0.00023	---	1.1 P	---	---	---	---	---	---	---	---	0.28	60	0.034	<0.00024	<0.00022	0.0050	0.0059	0.030
Dieldrin	4.9	0.15	32	---	---	0.021	---	0.050	---	---	---	---	---	---	---	---	1.0	61	0.044	0.0053	<0.00056	0.062	0.059	0.085
Endosulfan I	3,100	91	---	---	---	<0.00034	---	0.019	---	---	---	---	---	---	---	---	0.0035 P	0.15 J	<0.00038	<0.00036	<0.00034	<0.00035	<0.00037	<0.00035
Endosulfan II	9,200	270	---	---	---	<0.68	---	0.038 JP	---	---	---	---	---	---	---	---	0.0079	<0.0066	<0.00076	<0.00071	<0.00067	<0.00071	<0.00073	<0.00069
Endosulfan sulfate	470,000	380	---	---	---	<0.00068	---	0.0056	---	---	---	---	---	---	---	---	<0.00070	0.59	<0.00076	<0.00071	<0.00067	<0.00071	<0.00073	<0.00069
Endrin	75	9	---	---	---	<0.00068	---	0.022 P	---	---	---	---	---	---	---	---	0.030 P	2.4 P	<0.00076	<0.00071	<0.00067	0.0018 J	0.0018 J	<0.00069
Endrin aldehyde	63,000	19	---	---	---	<0.00068	---	0.018	---	---	---	---	---	---	---	---	0.0022 J	0.16 P	<0.00076	<0.00071	<0.00067	<0.00071	<0.00073	<0.00069
Endrin ketone	5,100	19	---	---	---	<0.00068	---	0.011	---	---	---	---	---	---	---	---	0.011	0.57	<0.00076	<0.00071	<0.00067	0.0054 P	<0.00073	<0.00069
gamma-BHC	0.92	1.1	---	---	---	<0.00023	---	0.0051 P	---	---	---	---	---	---	---	---	<0.00023	<0.00022	<0.00025	<0.00024	<0.00022	<0.00024	<0.00024	<0.00023
Heptachlor	19	0.13	9.1	---	---	<0.00034	---	0.061 J	---	---	---	---	---	---	---	---	0.022	<0.00033	0.0021 J	<0.00036	<0.00034	0.0032	<0.00037	0.0038
Heptachlor epoxide	5.8	0.24	24	---	---	<0.00024	---	0.15 J	---	---	---	---	---	---	---	---	0.096	2.6 P	0.015	<0.00036	<0.00034	0.0011 J	0.0024	0.016
Methoxychlor	12,000	270	---	---	---	<0.0039	---	0.0098 JP	---	---	---	---	---	---	---	---	<0.0040 P	0.17	<0.0043	<0.0040	<0.0038	<0.0040	<0.0041	<0.0039
All other OCP	Varies	Varies	Varies	---	---	<SDL	---	<SDL	---	---	---	---	---	---	---	---	<SDL	<SDL	<SDL	<SDL	<SDL	<SDL	<SDL	<SDL
TPH by Texas 1005 (mg/kg) ⁷																								
TPH (C ₆ to C ₁₂)	6,500	1,600	3,100	<12	26 J	<11	<13	<1,100	<120	<12	<11	<11	<12	---	---	---	<9.0	---	<13	---	---	---	---	---
TPH (C ₁₂ to C ₂₅)	20,000	2,300	15,000	<12	<12	<11	<13	14,000	5,300	<12	<11	<11	<12	---	---	---	<9.0	---	<13	---	---	---	---	---
TPH (C ₂₅ to C ₅₀)	20,000	2,300	15,000	<12	<12	<11	<13	14,000	4,600	<12	<11	<11	<12	---	---	---	<9.0	---	<13	---	---	---	---	---
TPH (C ₆ to C ₃₅)	---	---	---	<12	26 J	<11	<13	28,000	9,900	<12	<11	<11	<12	---	---	---	<9.0	---	<13	---	---	---	---	---
Metals (mg/L) ⁸																								
Arsenic	500	24	---	---	---	---	---	---	---	---	---	---	---	15.8	17.6	5.35	---	---	---	---	---	---	---	---

Notes:
¹Samples collected by W&M Environmental Group, LLC and analyzed by ALS Environmental in Houston, Texas.
²Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 protective concentration level (PCL) for soil protective of Class 3 groundwater (GW_{Class3}) in a residential setting with a 0.5-acre source area (March 31, 2017).
³TCEQ TRRP Tier 1 PCL for total combined surface soil pathways in a residential setting with a 0.5-acre source area.
⁴TCEQ TRRP Tier 1 PCL for soil to air pathway in a residential setting with a 0.5-acre source area.
⁵Volatile organic compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B.
⁶Organochlorinated Pesticides analyzed by EPA Method 8081B.
⁷Total petroleum hydrocarbons (TPH) by Texas Method TX 1005.
⁸Arsenic analyzed by EPA Method 6020A.
 (---) Constituent not analyzed.
 <### Indicates concentrations less than the laboratory sample detection limit (SDL).
 J- Analyte detected below quantitation limit.

P - Dual column results percent difference > 40%. This flag is used for pesticide and Arochlor target compounds when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported and flagged with a "P". The "P" flag is not used unless a compound is identified on both columns.
 Bold values indicate the TRRP residential assessment level (RAL) for each chemical of concern (COC). The RAL is the lower of the GW_{Class3} and Tot_{SoilComb} PCLs.
 Bold and highlighted values indicate concentration exceeds the RAL.
 Concentrations reported in milligrams per kilogram (mg/kg).

**TABLE 5B-1
GROUNDWATER ANALYTICAL DATA SUMMARY - OCPs**

*1714 Vaughn Boulevard
Fort Worth, Texas*

Sample ID ¹	Date Collected	OCPs ² (mg/L)						
		4,4-DDT	Dieldrin	Endosulfan I	Heptachlor epoxide	alpha-Chlordane	gamma-Chlordane	All other OCPs
MW-1	8/8/2015	---	---	---	---	---	---	<SDL
MW-2	7/15/2015	---	---	---	---	---	---	<SDL
MW-3	7/16/2015	<0.0000070	0.00037	<0.00001	<0.00001	<0.00002	<0.00002	<SDL
MW-4	7/24/2015	<0.0000070	<0.00001	<0.00001	<0.00001	<0.00002	<0.00002	<SDL
	8/18/2015	<0.0000070	0.000049 J	0.000019 J	<0.00001	<0.00002 P	0.000031 J	<SDL
MW-5	10/24/2017	0.000013 J	0.00066	0.000022 J	0.00010	0.000040 J	0.000049 J	<SDL
^{GW} GW _{Ing} Tier 1 Residential PCL ³		0.0027	0.000057	0.049	0.0002	0.0026	0.0026	Varies
^{GW} GW _{Class3} Tier 1 Residential PCL ⁴		0.27	0.0057	4.9	0.02	0.26	0.26	Varies

Notes:

¹Samples collected by W&M Environmental Group, LLC and analyzed by ALS Environmental in Houston, Texas.

²Organochlorinated pesticides (OCPs) analyzed by U.S. Environmental Protection Agency (EPA) Method 8081B.

³Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 groundwater ingestion (^{GW}GW_{Ing}) protective concentration level (PCL).

⁴TCEQ TRRP Tier 1 protective concentration level (PCL) for Class 3 groundwater (^{GW}GW_{Class 3}).

(---) Indicates the sample was not analyzed for OCPs.

Bold and yellow highlighted values indicate the residential assessment level (RAL) for each chemical of concern (COC).

(<) Indicates the value was not detected above the sample detection limit (SDL).

(J) Indicates that the value is an estimated value below the lowest calibration point.

(P) Indicates that dual column results percent difference was > 40%.

Concentrations reported in milligrams per liter (mg/L).

DRAFT

PHOTOGRAPHIC LOG

ATTACHMENT A



Photo 1: View of the garage located in the northwest portion of the Site, facing northwest.



Photo 2: View of two 55-gallon drums located in the west wing of the garage, facing north.



**Attachment A
Photographic Log**

1714 Vaughn Boulevard
Fort Worth, Texas

9/22/17

VCP Investigation

W&M Project No.: 1483.003.005



Photo 3: View of hand auger soil boring B-5 located on the eastern exterior wall of the garage.



Photo 4: View of hand auger soil boring B-6 located on the western exterior wall of the garage



**Attachment A
Photographic Log**

1714 Vaughn Boulevard
Fort Worth, Texas



Photo 5: View of the advancement of soil boring B-7 located on the eastern exterior wall, facing west.



Photo 6: View of soil boring B-8 located on the interior of the garage, facing north. Note that the easternmost hole was abandoned due to refusal using a hand auger.



Attachment A
Photographic Log
1714 Vaughn Boulevard
Fort Worth, Texas



Photo 7: View of the advancement of soil boring B-9 located east of the garage, facing west.



Photo 8: View of the advancement of soil boring B-10 located near the southeast corner of the garage building, facing west.



**Attachment A
Photographic Log**

1714 Vaughn Boulevard
Fort Worth, Texas

9/22/17

VCP Investigation

W&M Project No.: 1483.003.005



Photo 9: View of monitoring well MW-5 installed near the northeast corner of the garage building.



**Attachment A
Photographic Log**

1714 Vaughn Boulevard
Fort Worth, Texas

9/22/17

VCP Investigation

W&M Project No.: 1483.003.005

DRAFT

**SOIL BORING LOGS AND
MONITOR WELL
COMPLETION DIAGRAMS**

ATTACHMENT B



CLIENT SV Legal PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT NUMBER 1483.003.005 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 DATE STARTED 5/2/17 COMPLETED 5/2/17 GROUND ELEVATION --- HOLE SIZE 3"
 DRILLING CONTRACTOR W&M Environmental Group GROUND WATER LEVELS:
 DRILLING METHOD Hand Auger AT TIME OF DRILLING ---
 LOGGED BY T. Nelson CHECKED BY C. Snider AT END OF DRILLING ---
 NOTES East exterior wall of garage AFTER DRILLING ---
 LAT 32.72752 LON -97.2802

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0					
				Loose sand with gravel, significant debris and fill material	
				Clayey sand with gravels light brown, low plasticity, loose, moist, debris	6.5
					4.1
					7.7
5.0	GB B-5 (3-4')	CL-CH		Silty clay, light brown, medium plasticity, medium stiff, moist	7.8
				Resistance from large gravels encountered at approximately 6'	0.7
	GB B-5 (5-6')			Bottom of hole at 6.0 feet.	0.3
10.0					
15.0					
20.0					
25.0					

Clayton Snider 5/2/17

GENERAL BH / TP / WELL BORING LOGS - 1483.003.GPJ W&M TEMPLATE.GDT 11/17/17



CLIENT SV Legal PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT NUMBER 1483.003.005 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 DATE STARTED 5/2/17 COMPLETED 5/2/17 GROUND ELEVATION --- HOLE SIZE 3"
 DRILLING CONTRACTOR W&M Environmental Group GROUND WATER LEVELS:
 DRILLING METHOD Hand Auger AT TIME OF DRILLING ---
 LOGGED BY T. Nelson CHECKED BY C. Snider AT END OF DRILLING ---
 NOTES Northwest exterior corner of garage AFTER DRILLING ---
 LAT 32.7275 LON -97.28027

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0				Topsoil, loose, dark brown	
	GB B-6 (1-2')	SP-SC		Clayey sand with gravels, light brown, low plasticity, loose, moist Resistance from large gravels encountered at approximately 4'	0.2 0.4
	GB B-6 (3-4')			Bottom of hole at 4.0 feet.	0.3 0.3
5.0					
10.0					
15.0					
20.0					
25.0					

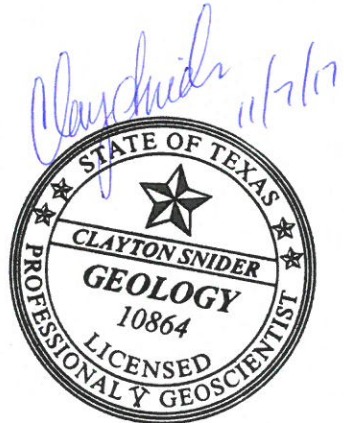
Clayton Snider 11/7/17



CLIENT SV Legal
 PROJECT NUMBER 1483.003.005
 DATE STARTED 7/28/17 COMPLETED 7/28/17
 DRILLING CONTRACTOR Subterra Drilling
 DRILLING METHOD Geoprobe
 LOGGED BY T.Nelson CHECKED BY C. Snider
 NOTES Northeast exterior corner of garage
 LAT 32.72747 LON -97.28014

PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 GROUND ELEVATION --- HOLE SIZE 2"
 GROUND WATER LEVELS:
 AT TIME OF DRILLING ---
 AT END OF DRILLING ---
 AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0					
				Fill, clayey sand, light to dark brown, loose, no plasticity, moist-dry, debris	0.0
5.0					0.0
	GB B-7 (5-6')			4.5 Clay, intermittent gravels, dark gray, stiff, medium plasticity, moist	0.0
	GB B-7 (6-7')	CL-CH			0.0
10.0					0.0
	GB B-7 (9-10')	CL-CH		9.0 Silty clay, light brown, medium stiffness, medium plasticity, moist	0.0
				10.0 Bottom of hole at 10.0 feet.	

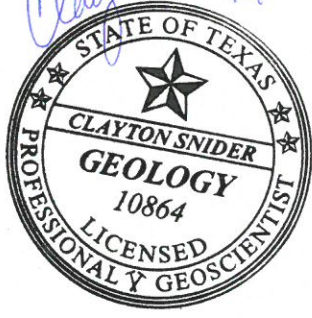


GENERAL BH / TP / WELL BORING LOGS_1483.003.GPJ W&M TEMPLATE.GDT 11/17/17



CLIENT SV Legal PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT NUMBER 1483.003.005 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 DATE STARTED 7/28/17 COMPLETED 7/28/17 GROUND ELEVATION --- HOLE SIZE 3"
 DRILLING CONTRACTOR W&M Environmental GROUND WATER LEVELS:
 DRILLING METHOD Hand Auger AT TIME OF DRILLING ---
 LOGGED BY T.Nelson CHECKED BY C. Snider AT END OF DRILLING ---
 NOTES Interior of the garage AFTER DRILLING ---
 LAT _____ LON _____

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0					
	GB B-8 (2.5-3')	SP		Sand, intermittent gravels, light grey, loose, no plasticity	
		SC		Clayey sand, intermittent gravels, dark gray, medium stiffness, low plasticity, moist	0.0
		CL-CH		Clay, intermittent gravels, dark gray, stiff, medium plasticity, moist	
				Bottom of hole at 3.0 feet.	0.0
5.0					
10.0					
15.0					
20.0					
25.0					



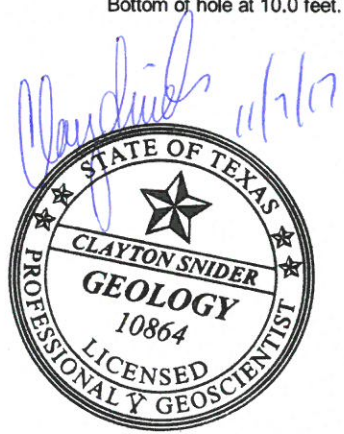
GENERAL BH / TP / WELL BORING LOGS_1483.003.GPJ W&M TEMPLATE.GDT 11/17/17



CLIENT SV Legal
 PROJECT NUMBER 1483.003.005
 DATE STARTED 7/28/17 COMPLETED 7/28/17
 DRILLING CONTRACTOR Subterra Drilling
 DRILLING METHOD Geoprobe
 LOGGED BY T.Nelson CHECKED BY C. Snider
 NOTES East of garage
 LAT 32.72747 LON -97.28011

PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 GROUND ELEVATION --- HOLE SIZE 2"
 GROUND WATER LEVELS:
 AT TIME OF DRILLING ---
 AT END OF DRILLING ---
 AFTER DRILLING ---

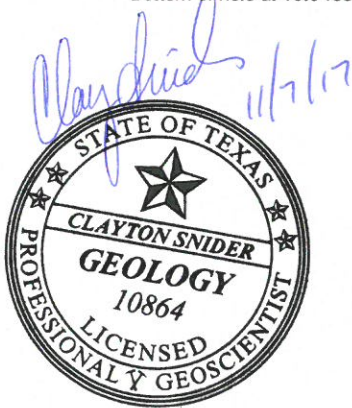
DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0					
		SC		Clayey sand, light brown, loose, low plasticity, dry Concrete and other debris observed at approximately 5'	0.0
5.0					
	GB B-9 (5-6')	CL-CH		Clay, intermittent gravels, dark brown to dark gray, stiff, medium plasticity, moist	0.2
	GB B-9 (6-7')	CL-CH			0.1
8.0					
		CL-CH		Silty clay, intermittent gravels, light brown, stiff, medium plasticity, moist	0.0
10.0	GB B-9 (9-10')			Bottom of hole at 10.0 feet.	
15.0					
20.0					
25.0					





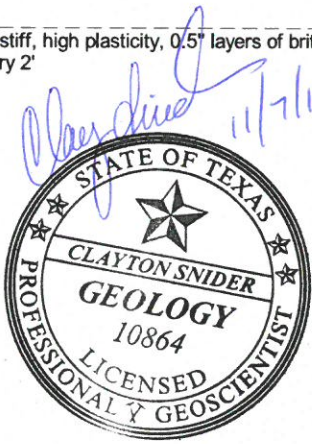
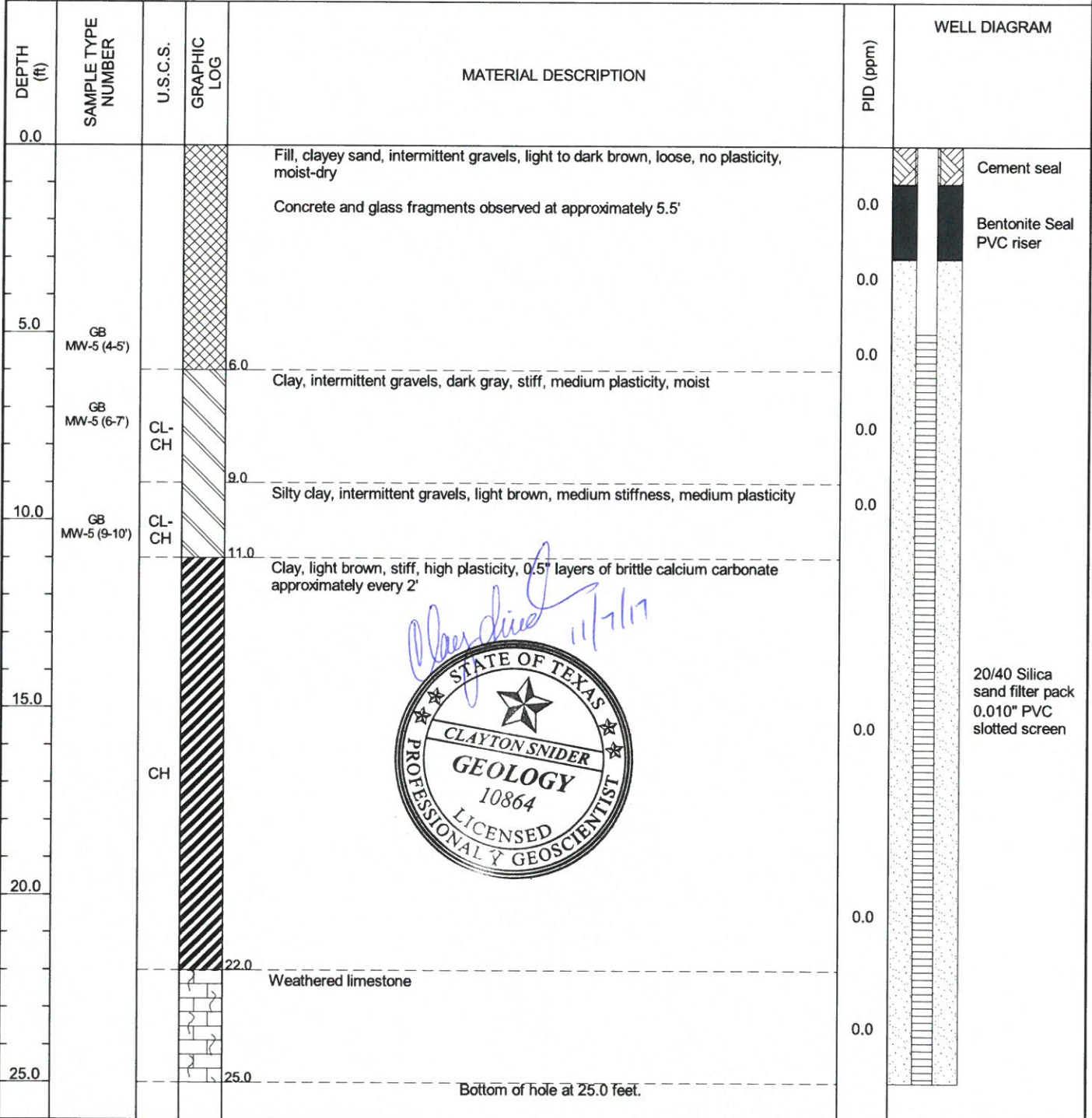
CLIENT SV Legal PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT NUMBER 1483.003.005 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 DATE STARTED 7/28/17 COMPLETED 7/28/17 GROUND ELEVATION --- HOLE SIZE 2"
 DRILLING CONTRACTOR Subterra Drilling GROUND WATER LEVELS:
 DRILLING METHOD Geoprobe AT TIME OF DRILLING ---
 LOGGED BY T.Nelson CHECKED BY C. Snider AT END OF DRILLING ---
 NOTES Southeast exterior corner of garage AFTER DRILLING ---
 LAT 32.72748 LON -97.28016

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0.0					
0.0				Fill, clayey sand, light to dark brown, loose, low plasticity, dry	
				Concrete and debris at approximately 5'	0.0
5.0					0.0
5.0					0.0
5.0	GB B-10 (5-6')			Clay, intermittent gravels, dark gray, stiff, medium plasticity, moist	0.0
	GB B-10 (6-7')	CL-CH			0.0
10.0					0.0
10.0	GB B-10 (9-10')	CL-CH		Silty clay, intermittent gravels, light to dark brown, medium stiffness, medium plasticity, moist	0.0
				Bottom of hole at 10.0 feet.	
15.0					
20.0					
25.0					





CLIENT SV Legal PROJECT NAME LSI - 1714 Vaughn, Fort Worth Garage Assessment
 PROJECT NUMBER 1483.003.005 PROJECT LOCATION 1714 Vaughn Boulevard, Fort Worth, Texas
 DATE STARTED 7/28/17 COMPLETED 7/28/17 GROUND ELEVATION --- HOLE SIZE 8"
 DRILLING CONTRACTOR Subterra Drilling GROUND WATER LEVELS:
 DRILLING METHOD Direct Push & Flights AT TIME OF DRILLING ---
 LOGGED BY T.Nelson CHECKED BY C. Snider AT END OF DRILLING ---
 NOTES Northeast exterior corner of garage AFTER DRILLING ---
 LAT 32.72752 LON -97.28014



GENERAL BH / TP / WELL BORING LOGS, 1483.003.GPJ W&M TEMPLATE.GDT 11/7/17

DRAFT

**LABORATORY
ANALYTICAL DATA**

ATTACHMENT C



10450 Stancliff Rd. Suite 210
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F: +1 281 530 5887
www.alsglobal.com

May 19, 2017

Michael Henn
W&M Environmental Group, Inc.
906 E. 18th Street (STE 100)
Plano, TX 75074

Work Order: **HS17050141**

Laboratory Results for: **1714 Vaughn Blvd 1483.003.005**

Dear Michael,

ALS Environmental received 4 sample(s) on May 02, 2017 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,

A handwritten signature in cursive script that reads "Bernadette Fini".

Generated By: Dayna.Fisher
Bernadette A. Fini
Project Manager

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.



Bernadette A. Fini
Project Manager

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 05/19/2017			
Project Name: 1714 Vaughn Blvd 1483.003.005				Laboratory Job Number: HS17050141			
Reviewer Name: Bernadette A. Fini				Prep Batch Number(s): 115899, 115923, R294054, R294137			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?	X				
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?		X			2
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?		X			3
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			4
		Were MS/MSD RPDs within laboratory QC limits?		X			5
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				6

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 05/19/2017			
Project Name: 1714 Vaughn Blvd 1483.003.005				Laboratory Job Number: HS17050141			
Reviewer Name: Bernadette A. Fini				Prep Batch Number(s): 115899, 115923, R294054, R294137			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?		X			7
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: ALS Laboratory Group		LRC Date: 05/19/2017
Project Name: 1714 Vaughn Blvd 1483.003.005		Laboratory Job Number: HS17050141
Reviewer Name: Bernadette A. Fini		Prep Batch Number(s): 115899, 115923, R294054, R294137
ER# ⁵	Description	
1	Batch 115923, Organochlorine Pesticides Method SW8081, Sample B-5 (5-6'): Due to sample matrix interferences, the surrogate recovery was outside of the established control limits.	
2	Batch 115923, Organochlorine Pesticides Method SW8081, the multi-response compounds; Toxaphene and Chlordane were not included in the spiking solution for the LCS.	
3	Batch 115923, Organochlorine Pesticides Method SW8081, sample B-5 (3-4') MS and MSD, the multi-response compounds; Toxaphene and Chlordane were not included in the spiking solution for the MS and MSD	
4	Batch 115923, Organochlorine Pesticides Method SW8081, sample B-5 (3-4'), MS and/or MSD recovered outside the control limits for multiple compounds due to possible matrix interference. Batch R294054, Volatile Organics Method SW8260, sample HS17050101-01, MS and MSD were performed on unrelated sample.	
5	Batch 115923, Organochlorine Pesticides Method SW8081, sample B-5 (3-4'), MS/MSD RPD recovered above the RPD limits for 4,4'-DDD and Endosulfan sulfate	
6	With the exception of cyclohexane, ALS is NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package. Because TCEQ does not offer accreditation for this compound, the results are flagged with n.	
7	Organochlorine Pesticides Method SW8081, results are P qualified for Endosulfan I, Endrin, Methoxychlor and alpha-Chlordane in Sample B-5 (3-4'). This indicates possible coelution or matrix interference on the confirming column. Organochlorine Pesticides Method SW8081, results are P qualified for 4,4'-DDD, delta-BHC, Endrin, Endrin aldehyde, Heptaclor epoxide and alpha-Chlordane in Sample B-5 (5-6'). This indicates possible coelution or matrix interference on the confirming column. Organochlorine Pesticides Method SW8081, results are P qualified for alpha-Chlordane in Sample B-6 (1-2'). This indicates possible coelution or matrix interference on the confirming column. Batch 115923, Organochlorine Pesticides Method SW8081, sample B-5 (3-4') MS and MSD, results are P qualified indicating possible co-elution or matrix interference on the confirming column.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
Work Order: HS17050141

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17050141-01	B-5 (3-4')	Soil		02-May-2017 11:10	02-May-2017 15:15	<input type="checkbox"/>
HS17050141-02	B-5 (5-6')	Soil		02-May-2017 11:30	02-May-2017 15:15	<input type="checkbox"/>
HS17050141-03	B-6 (1-2')	Soil		02-May-2017 12:10	02-May-2017 15:15	<input type="checkbox"/>
HS17050141-04	B-6 (3-4')	Soil		02-May-2017 12:45	02-May-2017 15:15	<input checked="" type="checkbox"/>

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-5 (3-4')
 Collection Date: 02-May-2017 11:10

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
1,1,1-Trichloroethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,1,2,2-Tetrachloroethane	U		0.00091	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,1,2-Trichlor-1,2,2-trifluoroethane	U		0.00080	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,1,2-Trichloroethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,1-Dichloroethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,1-Dichloroethene	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,2,4-Trichlorobenzene	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,2-Dibromo-3-chloropropane	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,2-Dibromoethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,2-Dichlorobenzene	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,2-Dichloroethane	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,2-Dichloropropane	U		0.00091	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,3-Dichlorobenzene	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
1,4-Dichlorobenzene	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
2-Butanone	U		0.0015	0.011	mg/Kg-dry	1	03-May-2017 18:10
2-Hexanone	U		0.0016	0.011	mg/Kg-dry	1	03-May-2017 18:10
4-Methyl-2-pentanone	U		0.0023	0.011	mg/Kg-dry	1	03-May-2017 18:10
Acetone	U		0.0023	0.023	mg/Kg-dry	1	03-May-2017 18:10
Benzene	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Bromodichloromethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Bromoform	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Bromomethane	U		0.0011	0.011	mg/Kg-dry	1	03-May-2017 18:10
Carbon disulfide	U		0.00068	0.011	mg/Kg-dry	1	03-May-2017 18:10
Carbon tetrachloride	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Chlorobenzene	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Chloroethane	U		0.00091	0.011	mg/Kg-dry	1	03-May-2017 18:10
Chloroform	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Chloromethane	U		0.00057	0.011	mg/Kg-dry	1	03-May-2017 18:10
cis-1,2-Dichloroethene	U		0.00091	0.0057	mg/Kg-dry	1	03-May-2017 18:10
cis-1,3-Dichloropropene	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Cyclohexane	U	n	0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Dibromochloromethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Dichlorodifluoromethane	U		0.00080	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Ethylbenzene	U		0.00080	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Isopropylbenzene	U		0.0010	0.0057	mg/Kg-dry	1	03-May-2017 18:10
m,p-Xylene	U		0.0018	0.011	mg/Kg-dry	1	03-May-2017 18:10
Methyl acetate	U		0.00080	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Methyl tert-butyl ether	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Methylcyclohexane	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-5 (3-4')
 Collection Date: 02-May-2017 11:10

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Methylene chloride	U		0.0011	0.011	mg/Kg-dry	1	03-May-2017 18:10
o-Xylene	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Styrene	U		0.00080	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Tetrachloroethene	U		0.00080	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Toluene	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
trans-1,2-Dichloroethene	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
trans-1,3-Dichloropropene	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Trichloroethene	U		0.00068	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Trichlorofluoromethane	U		0.00057	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Vinyl chloride	U		0.00091	0.0023	mg/Kg-dry	1	03-May-2017 18:10
Xylenes, Total	U		0.0011	0.0057	mg/Kg-dry	1	03-May-2017 18:10
Surr: 1,2-Dichloroethane-d4	90.4			70-128	%REC	1	03-May-2017 18:10
Surr: 4-Bromofluorobenzene	87.4			73-126	%REC	1	03-May-2017 18:10
Surr: Dibromofluoromethane	95.0			71-128	%REC	1	03-May-2017 18:10
Surr: Toluene-d8	107			73-127	%REC	1	03-May-2017 18:10
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 03-May-2017		Analyst: HPP	
nC6 to nC12	U		9.0	45	mg/Kg-dry	1	03-May-2017 22:26
>nC12 to nC28	U		9.0	45	mg/Kg-dry	1	03-May-2017 22:26
>nC28 to nC35	U		9.0	45	mg/Kg-dry	1	03-May-2017 22:26
Total Petroleum Hydrocarbon	U		9.0	45	mg/Kg-dry	1	03-May-2017 22:26
Surr: 2-Fluorobiphenyl	76.9			70-130	%REC	1	03-May-2017 22:26
Surr: Trifluoromethyl benzene	80.6			70-130	%REC	1	03-May-2017 22:26

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-5 (3-4')
 Collection Date: 02-May-2017 11:10

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-01
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 04-May-2017		Analyst: STH	
4,4'-DDD		U	0.00059	0.0039	mg/Kg-dry	1	09-May-2017 17:48
4,4'-DDE	0.050		0.00059	0.0039	mg/Kg-dry	1	09-May-2017 17:48
4,4'-DDT	0.086		0.0059	0.039	mg/Kg-dry	10	09-May-2017 16:05
Aldrin	0.0056		0.00035	0.0020	mg/Kg-dry	1	09-May-2017 17:48
alpha-BHC		U	0.00035	0.0020	mg/Kg-dry	1	09-May-2017 17:48
beta-BHC		U	0.00035	0.0020	mg/Kg-dry	1	09-May-2017 17:48
Chlordane	1.1		0.023	0.20	mg/Kg-dry	10	09-May-2017 16:05
delta-BHC		U	0.00023	0.0020	mg/Kg-dry	1	09-May-2017 17:48
Dieldrin	1.0		0.029	0.19	mg/Kg-dry	50	10-May-2017 12:36
Endosulfan I	0.0035	P	0.00035	0.0020	mg/Kg-dry	1	09-May-2017 17:48
Endosulfan II	0.0079		0.00070	0.0039	mg/Kg-dry	1	09-May-2017 17:48
Endosulfan sulfate		U	0.00070	0.0039	mg/Kg-dry	1	09-May-2017 17:48
Endrin	0.030	P	0.00070	0.0039	mg/Kg-dry	1	09-May-2017 17:48
Endrin aldehyde	0.0022	J	0.00070	0.0039	mg/Kg-dry	1	09-May-2017 17:48
Endrin ketone	0.011		0.00070	0.0039	mg/Kg-dry	1	09-May-2017 17:48
gamma-BHC		U	0.00023	0.0020	mg/Kg-dry	1	09-May-2017 17:48
Heptachlor	0.022		0.00035	0.0020	mg/Kg-dry	1	09-May-2017 17:48
Heptachlor epoxide	0.096		0.0035	0.020	mg/Kg-dry	10	09-May-2017 16:05
Methoxychlor		U	0.0040	0.020	mg/Kg-dry	1	09-May-2017 17:48
Toxaphene		U	0.0056	0.020	mg/Kg-dry	1	09-May-2017 17:48
<i>Surr: Decachlorobiphenyl</i>	<i>106</i>			<i>59-144</i>	<i>%REC</i>	<i>1</i>	<i>09-May-2017 17:48</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>75.0</i>			<i>56.9-130</i>	<i>%REC</i>	<i>1</i>	<i>09-May-2017 17:48</i>
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 04-May-2017		Analyst: STH	
alpha-Chlordane	0.13	P	0.0023	0.020	mg/Kg-dry	10	09-May-2017 16:05
gamma-Chlordane	0.28		0.0023	0.020	mg/Kg-dry	10	09-May-2017 16:05
MOISTURE		Method:SW3550				Analyst: DFF	
Percent Moisture	14.9		0.0100	0.0100	wt%	1	04-May-2017 07:58

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-5 (5-6')
 Collection Date: 02-May-2017 11:30

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 04-May-2017		Analyst: STH	
4,4'-DDD	0.038	P	0.00055	0.0036	mg/Kg-dry	1	09-May-2017 01:49
4,4'-DDE	3.4		0.055	0.36	mg/Kg-dry	100	09-May-2017 16:25
4,4'-DDT	U		0.00055	0.0036	mg/Kg-dry	1	09-May-2017 01:49
Aldrin	0.76		0.033	0.18	mg/Kg-dry	100	09-May-2017 16:25
alpha-BHC	U		0.00033	0.0018	mg/Kg-dry	1	09-May-2017 01:49
beta-BHC	U		0.00033	0.0018	mg/Kg-dry	1	09-May-2017 01:49
Chlordane	220		2.2	18	mg/Kg-dry	1000	10-May-2017 13:36
delta-BHC	0.0092	P	0.00022	0.0018	mg/Kg-dry	1	09-May-2017 01:49
Dieldrin	61		2.8	18	mg/Kg-dry	5000	10-May-2017 13:16
Endosulfan I	0.15	J	0.033	0.18	mg/Kg-dry	100	09-May-2017 16:25
Endosulfan II	U		0.0066	0.036	mg/Kg-dry	10	09-May-2017 16:45
Endosulfan sulfate	0.59		0.0066	0.036	mg/Kg-dry	10	09-May-2017 16:45
Endrin	2.4	P	0.066	0.36	mg/Kg-dry	100	09-May-2017 16:25
Endrin aldehyde	0.16	P	0.0066	0.036	mg/Kg-dry	10	09-May-2017 16:45
Endrin ketone	0.57		0.0066	0.036	mg/Kg-dry	10	09-May-2017 16:45
gamma-BHC	U		0.00022	0.0018	mg/Kg-dry	1	09-May-2017 01:49
Heptachlor	U		0.00033	0.0018	mg/Kg-dry	1	09-May-2017 01:49
Heptachlor epoxide	2.6	P	0.033	0.18	mg/Kg-dry	100	09-May-2017 16:25
Methoxychlor	0.17		0.0037	0.018	mg/Kg-dry	1	09-May-2017 01:49
Toxaphene	U		0.0053	0.018	mg/Kg-dry	1	09-May-2017 01:49
Surr: Decachlorobiphenyl	191	S		59-144	%REC	1	09-May-2017 01:49
Surr: Tetrachloro-m-xylene	69.0			56.9-130	%REC	1	09-May-2017 01:49
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 04-May-2017		Analyst: STH	
alpha-Chlordane	26	P	0.22	1.8	mg/Kg-dry	1000	10-May-2017 13:36
gamma-Chlordane	60		1.1	9.2	mg/Kg-dry	5000	10-May-2017 13:16
MOISTURE		Method:SW3550				Analyst: DFF	
Percent Moisture	9.62		0.0100	0.0100	wt%	1	04-May-2017 07:58

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-6 (1-2')
 Collection Date: 02-May-2017 12:10

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260					Analyst: WLR
1,1,1-Trichloroethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,1,2,2-Tetrachloroethane	U		0.00099	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,1,2-Trichlor-1,2,2-trifluoroethane	U		0.00086	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,1,2-Trichloroethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,1-Dichloroethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,1-Dichloroethene	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,2,4-Trichlorobenzene	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,2-Dibromo-3-chloropropane	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,2-Dibromoethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,2-Dichlorobenzene	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,2-Dichloroethane	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,2-Dichloropropane	U		0.00099	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,3-Dichlorobenzene	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
1,4-Dichlorobenzene	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
2-Butanone	U		0.0016	0.012	mg/Kg-dry	1	03-May-2017 18:56
2-Hexanone	U		0.0017	0.012	mg/Kg-dry	1	03-May-2017 18:56
4-Methyl-2-pentanone	U		0.0025	0.012	mg/Kg-dry	1	03-May-2017 18:56
Acetone	U		0.0025	0.025	mg/Kg-dry	1	03-May-2017 18:56
Benzene	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Bromodichloromethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Bromoform	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Bromomethane	U		0.0012	0.012	mg/Kg-dry	1	03-May-2017 18:56
Carbon disulfide	U		0.00074	0.012	mg/Kg-dry	1	03-May-2017 18:56
Carbon tetrachloride	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Chlorobenzene	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Chloroethane	U		0.00099	0.012	mg/Kg-dry	1	03-May-2017 18:56
Chloroform	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Chloromethane	U		0.00062	0.012	mg/Kg-dry	1	03-May-2017 18:56
cis-1,2-Dichloroethene	U		0.00099	0.0062	mg/Kg-dry	1	03-May-2017 18:56
cis-1,3-Dichloropropene	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Cyclohexane	U	n	0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Dibromochloromethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Dichlorodifluoromethane	U		0.00086	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Ethylbenzene	U		0.00086	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Isopropylbenzene	U		0.0011	0.0062	mg/Kg-dry	1	03-May-2017 18:56
m,p-Xylene	U		0.0020	0.012	mg/Kg-dry	1	03-May-2017 18:56
Methyl acetate	U		0.00086	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Methyl tert-butyl ether	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Methylcyclohexane	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-6 (1-2')
 Collection Date: 02-May-2017 12:10

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260		Analyst: WLR			
Methylene chloride	U		0.0012	0.012	mg/Kg-dry	1	03-May-2017 18:56
o-Xylene	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Styrene	U		0.00086	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Tetrachloroethene	U		0.00086	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Toluene	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
trans-1,2-Dichloroethene	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
trans-1,3-Dichloropropene	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Trichloroethene	U		0.00074	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Trichlorofluoromethane	U		0.00062	0.0062	mg/Kg-dry	1	03-May-2017 18:56
Vinyl chloride	U		0.00099	0.0025	mg/Kg-dry	1	03-May-2017 18:56
Xylenes, Total	U		0.0012	0.0062	mg/Kg-dry	1	03-May-2017 18:56
<i>Surr: 1,2-Dichloroethane-d4</i>	93.9			70-128	%REC	1	03-May-2017 18:56
<i>Surr: 4-Bromofluorobenzene</i>	93.1			73-126	%REC	1	03-May-2017 18:56
<i>Surr: Dibromofluoromethane</i>	95.9			71-128	%REC	1	03-May-2017 18:56
<i>Surr: Toluene-d8</i>	105			73-127	%REC	1	03-May-2017 18:56
TEXAS TPH BY TX1005		Method:TX1005		Prep:TX1005PR / 03-May-2017		Analyst: HPP	
nC6 to nC12	U		13	63	mg/Kg-dry	1	03-May-2017 23:24
>nC12 to nC28	U		13	63	mg/Kg-dry	1	03-May-2017 23:24
>nC28 to nC35	U		13	63	mg/Kg-dry	1	03-May-2017 23:24
Total Petroleum Hydrocarbon	U		13	63	mg/Kg-dry	1	03-May-2017 23:24
<i>Surr: 2-Fluorobiphenyl</i>	78.9			70-130	%REC	1	03-May-2017 23:24
<i>Surr: Trifluoromethyl benzene</i>	80.5			70-130	%REC	1	03-May-2017 23:24

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd 1483.003.005
 Sample ID: B-6 (1-2')
 Collection Date: 02-May-2017 12:10

ANALYTICAL REPORT
 WorkOrder:HS17050141
 Lab ID:HS17050141-03
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 04-May-2017		Analyst: STH	
4,4'-DDD	U		0.00063	0.0042	mg/Kg-dry	1	09-May-2017 02:09
4,4'-DDE	0.0018	J	0.00063	0.0042	mg/Kg-dry	1	09-May-2017 02:09
4,4'-DDT	0.0028	J	0.00063	0.0042	mg/Kg-dry	1	09-May-2017 02:09
Aldrin	U		0.00038	0.0021	mg/Kg-dry	1	09-May-2017 02:09
alpha-BHC	U		0.00038	0.0021	mg/Kg-dry	1	09-May-2017 02:09
beta-BHC	U		0.00038	0.0021	mg/Kg-dry	1	09-May-2017 02:09
Chlordane	U		0.0025	0.021	mg/Kg-dry	1	09-May-2017 02:09
delta-BHC	U		0.00025	0.0021	mg/Kg-dry	1	09-May-2017 02:09
Dieldrin	0.044		0.00063	0.0042	mg/Kg-dry	1	09-May-2017 02:09
Endosulfan I	U		0.00038	0.0021	mg/Kg-dry	1	09-May-2017 02:09
Endosulfan II	U		0.00076	0.0042	mg/Kg-dry	1	09-May-2017 02:09
Endosulfan sulfate	U		0.00076	0.0042	mg/Kg-dry	1	09-May-2017 02:09
Endrin	U		0.00076	0.0042	mg/Kg-dry	1	09-May-2017 02:09
Endrin aldehyde	U		0.00076	0.0042	mg/Kg-dry	1	09-May-2017 02:09
Endrin ketone	U		0.00076	0.0042	mg/Kg-dry	1	09-May-2017 02:09
gamma-BHC	U		0.00025	0.0021	mg/Kg-dry	1	09-May-2017 02:09
Heptachlor	0.0021	J	0.00038	0.0021	mg/Kg-dry	1	09-May-2017 02:09
Heptachlor epoxide	0.015		0.00038	0.0021	mg/Kg-dry	1	09-May-2017 02:09
Methoxychlor	U		0.0043	0.021	mg/Kg-dry	1	09-May-2017 02:09
Toxaphene	U		0.0061	0.021	mg/Kg-dry	1	09-May-2017 02:09
<i>Surr: Decachlorobiphenyl</i>	<i>105</i>			<i>59-144</i>	<i>%REC</i>	<i>1</i>	<i>09-May-2017 02:09</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>60.4</i>			<i>56.9-130</i>	<i>%REC</i>	<i>1</i>	<i>09-May-2017 02:09</i>
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 04-May-2017		Analyst: STH	
alpha-Chlordane	0.022	P	0.00025	0.0021	mg/Kg-dry	1	09-May-2017 02:09
gamma-Chlordane	0.034		0.00025	0.0021	mg/Kg-dry	1	09-May-2017 02:09
MOISTURE		Method:SW3550				Analyst: DFF	
Percent Moisture	21.4		0.0100	0.0100	wt%	1	04-May-2017 07:58

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

WEIGHT LOG

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

Batch ID: 1657 **Method:** VOLATILES BY SW8260C

SamplID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS17050141-01	1	5.146 (g)	5 (mL)	0.97	TerraCore (5035A)
HS17050141-03	1	5.157 (g)	5 (mL)	0.97	TerraCore (5035A)

Batch ID: 115899 **Method:** TEXAS TPH BY TX1005 **Prep:** TX 1005_S PR

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17050141-01	1	13.11	10 (mL)	0.7628
HS17050141-03	1	10.02	10 (mL)	0.998

Batch ID: 115923 **Method:** MISCELLANEOUS PESTICIDES BY SW8081B **Prep:** PESTPR_MW

SamplID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17050141-01	1	15.02	5 (mL)	0.3329
HS17050141-02	1	15.07	5 (mL)	0.3318
HS17050141-03	1	15.03	5 (mL)	0.3327
HS17050141-01	1	15.02	5 (mL)	0.3329
HS17050141-02	1	15.07	5 (mL)	0.3318
HS17050141-03	1	15.03	5 (mL)	0.3327

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 115899		Test Name : TEXAS TPH BY TX1005		Matrix: Soil		
HS17050141-01	B-5 (3-4')	02 May 2017 11:10		03 May 2017 16:18	03 May 2017 22:26	1
HS17050141-03	B-6 (1-2')	02 May 2017 12:10		03 May 2017 16:18	03 May 2017 23:24	1
Batch ID 115923		Test Name : ORGANOCHLORINE PESTICIDES BY SW8081B		Matrix: Soil		
HS17050141-01	B-5 (3-4')	02 May 2017 11:10		04 May 2017 12:30	10 May 2017 12:36	50
HS17050141-01	B-5 (3-4')	02 May 2017 11:10		04 May 2017 12:30	09 May 2017 17:48	1
HS17050141-01	B-5 (3-4')	02 May 2017 11:10		04 May 2017 12:30	09 May 2017 16:05	10
HS17050141-01	B-5 (3-4')	02 May 2017 11:10		04 May 2017 12:30	09 May 2017 16:05	10
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	10 May 2017 13:16	5000
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	10 May 2017 13:16	5000
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	10 May 2017 13:36	1000
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	10 May 2017 13:36	1000
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	09 May 2017 16:45	10
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	09 May 2017 16:25	100
HS17050141-02	B-5 (5-6')	02 May 2017 11:30		04 May 2017 12:30	09 May 2017 01:49	1
HS17050141-03	B-6 (1-2')	02 May 2017 12:10		04 May 2017 12:30	09 May 2017 02:09	1
HS17050141-03	B-6 (1-2')	02 May 2017 12:10		04 May 2017 12:30	09 May 2017 02:09	1
Batch ID R294054		Test Name : VOLATILES BY SW8260C		Matrix: Soil		
HS17050141-01	B-5 (3-4')	02 May 2017 11:10			03 May 2017 18:10	1
HS17050141-03	B-6 (1-2')	02 May 2017 12:10			03 May 2017 18:56	1
Batch ID R294137		Test Name : MOISTURE		Matrix: Soil		
HS17050141-01	B-5 (3-4')	02 May 2017 11:10			04 May 2017 07:58	1
HS17050141-02	B-5 (5-6')	02 May 2017 11:30			04 May 2017 07:58	1
HS17050141-03	B-6 (1-2')	02 May 2017 12:10			04 May 2017 07:58	1

WorkOrder: HS17050141
 InstrumentID: ECD_11
 Test Code: 8081_S
 Test Number: SW8081
 Test Name: Organochlorine Pesticides by

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	4,4'-DDD	72-54-8	0.00083	0.0010	0.00050	0.0033
A	4,4'-DDE	72-55-9	0.00083	0.00071	0.00050	0.0033
A	4,4'-DDT	50-29-3	0.00083	0.00094	0.00050	0.0033
A	Aldrin	309-00-2	0.00042	0.00040	0.00030	0.0017
A	alpha-BHC	319-84-6	0.00042	0.00040	0.00030	0.0017
A	beta-BHC	319-85-7	0.00042	0.00011	0.00030	0.0017
A	Chlordane	57-74-9	0.0083	0.0059	0.0020	0.017
A	delta-BHC	319-86-8	0.00042	0.00038	0.00020	0.0017
A	Dieldrin	60-57-1	0.00083	0.00075	0.00050	0.0033
A	Endosulfan I	959-98-8	0.00042	0.00037	0.00030	0.0017
A	Endosulfan II	33213-65-9	0.00083	0.00068	0.00060	0.0033
A	Endosulfan sulfate	1031-07-8	0.00083	0.00094	0.00060	0.0033
A	Endrin	72-20-8	0.00083	0.00094	0.00060	0.0033
A	Endrin aldehyde	7421-93-4	0.00083	0.00083	0.00060	0.0033
A	Endrin ketone	53494-70-5	0.00083	0.00087	0.00060	0.0033
A	gamma-BHC	58-89-9	0.00042	0.00054	0.00020	0.0017
A	Heptachlor	76-44-8	0.00042	0.00047	0.00030	0.0017
A	Heptachlor epoxide	1024-57-3	0.00042	0.00037	0.00030	0.0017
A	Methoxychlor	72-43-5	0.0042	0.00067	0.0034	0.017
A	Toxaphene	8001-35-2	0.0083	0.0062	0.0048	0.017
S	Decachlorobiphenyl	2051-24-3	0	0	0	0
S	Tetrachloro-m-xylene	877-09-8	0	0	0	0

WorkOrder: HS17050141
 InstrumentID: ECD_11
 Test Code: 8081-MISC._S
 Test Number: SW8081
 Test Name: Miscellaneous Pesticides by

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	alpha-Chlordane	5103-71-9	0.00083	0.00043	0.00020	0.0017
A	gamma-Chlordane	5103-74-2	0.00083	0.00018	0.00020	0.0017

WorkOrder: HS17050141
 InstrumentID: FID-10
 Test Code: TX1005_S_REV3
 Test Number: TX1005
 Test Name: Texas TPH by TX1005

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	nC6 to nC12	TPH-1005-1	25	24	10	50
A	>nC12 to nC28	TPH-1005-2	25	23	10	50
A	>nC28 to nC35	TPH-1005-4	25	23	10	50
A	Total Petroleum Hydrocarbon	TPH	50	47	10	50
S	2-Fluorobiphenyl	321-60-8	0	0	0	0
S	Trifluoromethyl benzene	98-08-8	0	0	0	0

WorkOrder: HS17050141
 InstrumentID: VOA5
 Test Code: 8260_S
 Test Number: SW8260
 Test Name: Volatiles by SW8260C

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	1,1,1-Trichloroethane	71-55-6	0.0012	0.0011	0.00050	0.0050
A	1,1,2,2-Tetrachloroethane	79-34-5	0.0012	0.0016	0.00080	0.0050
A	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.0012	0.00087	0.00070	0.0050
A	1,1,2-Trichloroethane	79-00-5	0.0012	0.0017	0.00050	0.0050
A	1,1-Dichloroethane	75-34-3	0.0012	0.0014	0.00050	0.0050
A	1,1-Dichloroethene	75-35-4	0.0012	0.0012	0.00050	0.0050
A	1,2,4-Trichlorobenzene	120-82-1	0.0012	0.0019	0.0010	0.0050
A	1,2-Dibromo-3-chloropropane	96-12-8	0.0012	0.0012	0.0010	0.0050
A	1,2-Dibromoethane	106-93-4	0.0012	0.0015	0.00050	0.0050
A	1,2-Dichlorobenzene	95-50-1	0.0012	0.0016	0.0010	0.0050
A	1,2-Dichloroethane	107-06-2	0.0012	0.0016	0.00060	0.0050
A	1,2-Dichloropropane	78-87-5	0.0012	0.0018	0.00080	0.0050
A	1,3-Dichlorobenzene	541-73-1	0.0012	0.0015	0.0010	0.0050
A	1,4-Dichlorobenzene	106-46-7	0.0012	0.0016	0.0010	0.0050
A	2-Butanone	78-93-3	0.0025	0.0036	0.0013	0.010
A	2-Hexanone	591-78-6	0.0012	0.0031	0.0014	0.010
A	4-Methyl-2-pentanone	108-10-1	0.0012	0.0032	0.0020	0.010
A	Acetone	67-64-1	0.0025	0.0031	0.0020	0.020
A	Benzene	71-43-2	0.0012	0.0014	0.00050	0.0050
A	Bromodichloromethane	75-27-4	0.0012	0.0013	0.00050	0.0050
A	Bromoform	75-25-2	0.0012	0.0033	0.00060	0.0050
A	Bromomethane	74-83-9	0.0012	0.0021	0.0010	0.010
A	Carbon disulfide	75-15-0	0.0025	0.0023	0.00060	0.010
A	Carbon tetrachloride	56-23-5	0.0012	0.00093	0.00060	0.0050
A	Chlorobenzene	108-90-7	0.0012	0.0015	0.00060	0.0050
A	Chloroethane	75-00-3	0.0012	0.0014	0.00080	0.010
A	Chloroform	67-66-3	0.0012	0.0016	0.00050	0.0050
A	Chloromethane	74-87-3	0.0012	0.0017	0.00050	0.010
A	cis-1,2-Dichloroethene	156-59-2	0.0012	0.0016	0.00080	0.0050
A	cis-1,3-Dichloropropene	10061-01-5	0.0012	0.0014	0.00050	0.0050
A	Cyclohexane	110-82-7	0.0012	0.00070	0.0010	0.0050
A	Dibromochloromethane	124-48-1	0.0012	0.0011	0.00050	0.0050
A	Dichlorodifluoromethane	75-71-8	0.0012	0.0012	0.00070	0.0050
A	Ethylbenzene	100-41-4	0.0012	0.0012	0.00070	0.0050
A	Isopropylbenzene	98-82-8	0.0012	0.0012	0.00090	0.0050
A	m,p-Xylene	179601-23-1	0.0012	0.0025	0.0016	0.010
A	Methyl acetate	79-20-9	0.0012	0.0017	0.00070	0.0050
A	Methyl tert-butyl ether	1634-04-4	0.0012	0.0017	0.00050	0.0050
A	Methylcyclohexane	108-87-2	0.0012	0.00072	0.0010	0.0050
A	Methylene chloride	75-09-2	0.0012	0.0015	0.0010	0.010
A	o-Xylene	95-47-6	0.0012	0.0014	0.0010	0.0050

WorkOrder: HS17050141
 InstrumentID: VOA5
 Test Code: 8260_S
 Test Number: SW8260
 Test Name: Volatiles by SW8260C

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Styrene	100-42-5	0.0012	0.0014	0.00070	0.0050
A	Tetrachloroethene	127-18-4	0.0012	0.0012	0.00070	0.0050
A	Toluene	108-88-3	0.0012	0.0015	0.00060	0.0050
A	trans-1,2-Dichloroethene	156-60-5	0.0012	0.0014	0.00050	0.0050
A	trans-1,3-Dichloropropene	10061-02-6	0.0012	0.0012	0.00060	0.0050
A	Trichloroethene	79-01-6	0.0012	0.0012	0.00060	0.0050
A	Trichlorofluoromethane	75-69-4	0.0012	0.0010	0.00050	0.0050
A	Vinyl chloride	75-01-4	0.0012	0.0013	0.00080	0.0020
A	Xylenes, Total	1330-20-7	0.0038	0.0039	0.0010	0.0050
S	1,2-Dichloroethane-d4	17060-07-0	0	0	0	0
S	4-Bromofluorobenzene	460-00-4	0	0	0	0
S	Dibromofluoromethane	1868-53-7	0	0	0	0
S	Toluene-d8	2037-26-5	0	0	0	0

WorkOrder: HS17050141
 InstrumentID: Balance1
 Test Code: MOIST_SW3550
 Test Number: SW3550
 Test Name: Moisture

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: wt%

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Percent Moisture	MOIST	0.0100	0.0100	0.0100	0.0100

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: 115923	Instrument: ECD_11	Method: SW8081								
MBLK	Sample ID: MBLK-115923	Units: ug/Kg	Analysis Date: 09-May-2017 00:10							
Client ID:	Run ID: ECD_11_294383	SeqNo: 4083723	PrepDate: 04-May-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

4,4'-DDD	U	3.3								
4,4'-DDE	U	3.3								
4,4'-DDT	U	3.3								
Aldrin	U	1.7								
alpha-BHC	U	1.7								
beta-BHC	U	1.7								
Chlordane	U	17								
delta-BHC	U	1.7								
Dieldrin	U	3.3								
Endosulfan I	U	1.7								
Endosulfan II	U	3.3								
Endosulfan sulfate	U	3.3								
Endrin	U	3.3								
Endrin aldehyde	U	3.3								
Endrin ketone	U	3.3								
gamma-BHC	U	1.7								
Heptachlor	U	1.7								
Heptachlor epoxide	U	1.7								
Methoxychlor	U	17								
Toxaphene	U	17								
<i>Surr: Decachlorobiphenyl</i>	8.931	0	6.667	0	134	59 - 144				
<i>Surr: Tetrachloro-m-xylene</i>	6.833	0	6.667	0	102	56.9 - 130				

MBLK	Sample ID: MBLK-115923	Units: ug/Kg	Analysis Date: 09-May-2017 00:10							
Client ID:	Run ID: ECD_11_294383	SeqNo: 4083839	PrepDate: 04-May-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	U	1.7								
gamma-Chlordane	U	1.7								

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: 115923 **Instrument:** ECD_11 **Method:** SW8081

LCS		Sample ID: LCS-115923			Units: ug/Kg		Analysis Date: 09-May-2017 00:30			
Client ID:		Run ID: ECD_11_294383			SeqNo: 4083724		PrepDate: 04-May-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	19.47	3.3	16.67	0	117	53 - 138				
4,4'-DDE	19.93	3.3	16.67	0	120	57 - 136				
4,4'-DDT	21.42	3.3	16.67	0	129	53 - 139				
Aldrin	9.694	1.7	8.333	0	116	52 - 130				
alpha-BHC	9.083	1.7	8.333	0	109	52 - 130				
beta-BHC	10.34	1.7	8.333	0	124	62 - 130				
delta-BHC	4.926	1.7	8.333	0	59.1	41 - 137				
Dieldrin	19.74	3.3	16.67	0	118	54 - 138				
Endosulfan I	9.658	1.7	8.333	0	116	55 - 132				
Endosulfan II	19.71	3.3	16.67	0	118	59 - 134				
Endosulfan sulfate	17.85	3.3	16.67	0	107	54 - 141				
Endrin	20.66	3.3	16.67	0	124	60 - 157				
Endrin aldehyde	19.15	3.3	16.67	0	115	56 - 146				
Endrin ketone	20.38	3.3	16.67	0	122	56 - 153				
gamma-BHC	9.344	1.7	8.333	0	112	52 - 133				
Heptachlor	10.19	1.7	8.333	0	122	54 - 134				
Heptachlor epoxide	9.711	1.7	8.333	0	117	58 - 130				
Methoxychlor	110.1	17	83.3	0	132	60 - 140				
Surr: Decachlorobiphenyl	7.216	0	6.667	0	108	59 - 144				
Surr: Tetrachloro-m-xylene	6.37	0	6.667	0	95.5	56.9 - 130				

LCS		Sample ID: LCS-115923			Units: ug/Kg		Analysis Date: 09-May-2017 00:30			
Client ID:		Run ID: ECD_11_294383			SeqNo: 4083840		PrepDate: 04-May-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	9.472	1.7	8.333	0	114	55 - 132				
gamma-Chlordane	10.67	1.7	8.333	0	128	60 - 129				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: 115923		Instrument: ECD_11		Method: SW8081						
MS		Sample ID: HS17050141-01MS		Units: ug/Kg		Analysis Date: 09-May-2017 01:09				
Client ID: B-5 (3-4')		Run ID: ECD_11_294383		SeqNo: 4083725		PrepDate: 04-May-2017		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
4,4'-DDD	43.68	3.3	16.59	0	263	53 - 138			SP	
4,4'-DDE	132.8	3.3	16.59	42.33	545	57 - 136			SE	
4,4'-DDT	57.32	3.3	16.59	59.47	-13.0	53 - 139			SEP	
Aldrin	18.4	1.7	8.295	4.749	165	52 - 130			S	
alpha-BHC	7.769	1.7	8.295	0	93.7	52 - 130				
beta-BHC	7.012	1.7	8.295	0	84.5	62 - 130				
delta-BHC	7.062	1.7	8.295	0	85.1	41 - 137				
Dieldrin	2117	3.3	16.59	811.8	7870	54 - 138			SEO	
Endosulfan I	15.19	1.7	8.295	2.945	148	55 - 132			SP	
Endosulfan II	32.32	3.3	16.59	6.732	154	59 - 134			S	
Endosulfan sulfate	35.43	3.3	16.59	0	214	54 - 141			S	
Endrin	35.02	3.3	16.59	25.76	55.8	60 - 157			SP	
Endrin aldehyde	21.4	3.3	16.59	1.903	118	56 - 146			P	
Endrin ketone	38.15	3.3	16.59	9.39	173	56 - 153			S	
gamma-BHC	7.84	1.7	8.295	0	94.5	52 - 133			P	
Heptachlor	14.38	1.7	8.295	18.68	-51.9	54 - 134			SP	
Heptachlor epoxide	128.5	1.7	8.295	77.83	611	58 - 130			SEOP	
Methoxychlor	119.8	17	82.91	1.318	143	60 - 140			S	
<i>Surr: Decachlorobiphenyl</i>	<i>7.803</i>	<i>0</i>	<i>6.636</i>	<i>0</i>	<i>118</i>	<i>59 - 144</i>				
<i>Surr: Tetrachloro-m-xylene</i>	<i>4.987</i>	<i>0</i>	<i>6.636</i>	<i>0</i>	<i>75.1</i>	<i>56.9 - 130</i>				

MS		Sample ID: HS17050141-01MS		Units: ug/Kg		Analysis Date: 09-May-2017 01:09			
Client ID: B-5 (3-4')		Run ID: ECD_11_294383		SeqNo: 4083841		PrepDate: 04-May-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
alpha-Chlordane	1135	1.7	8.294	107.4	12400	55 - 132			SEO
gamma-Chlordane	34.24	1.7	8.294	0	413	60 - 129			SE

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: 115923		Instrument: ECD_11		Method: SW8081						
MSD		Sample ID: HS17050141-01MSD		Units: ug/Kg		Analysis Date: 09-May-2017 01:29				
Client ID: B-5 (3-4')		Run ID: ECD_11_294383		SeqNo: 4083726		PrepDate: 04-May-2017		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	26.8	3.3	16.66	0	161	53 - 138	43.68	47.9	30	SRP
4,4'-DDE	126.8	3.3	16.66	42.33	507	57 - 136	132.8	4.65	30	SE
4,4'-DDT	57.65	3.3	16.66	59.47	-10.9	53 - 139	57.32	0.575	30	SEP
Aldrin	19.67	1.7	8.328	4.749	179	52 - 130	18.4	6.68	30	S
alpha-BHC	7.725	1.7	8.328	0	92.8	52 - 130	7.769	0.579	30	
beta-BHC	6.821	1.7	8.328	0	81.9	62 - 130	7.012	2.75	30	
delta-BHC	7.679	1.7	8.328	0	92.2	41 - 137	7.062	8.37	30	
Dieldrin	2073	3.3	16.66	811.8	7570	54 - 138	2117	2.13	30	SEO
Endosulfan I	14.78	1.7	8.328	2.945	142	55 - 132	15.19	2.74	30	SP
Endosulfan II	30.29	3.3	16.66	6.732	141	59 - 134	32.32	6.48	30	S
Endosulfan sulfate	25.89	3.3	16.66	0	155	54 - 141	35.43	31.1	30	SRP
Endrin	31.94	3.3	16.66	25.76	37.1	60 - 157	35.02	9.21	30	SP
Endrin aldehyde	19.72	3.3	16.66	1.903	107	56 - 146	21.4	8.15	30	P
Endrin ketone	39.41	3.3	16.66	9.39	180	56 - 153	38.15	3.24	30	S
gamma-BHC	7.681	1.7	8.328	0	92.2	52 - 133	7.84	2.06	30	P
Heptachlor	14.93	1.7	8.328	18.68	-45.0	54 - 134	14.38	3.77	30	SP
Heptachlor epoxide	126.7	1.7	8.328	77.83	587	58 - 130	128.5	1.42	30	SEO
Methoxychlor	115.9	17	83.24	1.318	138	60 - 140	119.8	3.25	30	
<i>Surr: Decachlorobiphenyl</i>	8.188	0	6.662	0	123	59 - 144	7.803	4.81	30	
<i>Surr: Tetrachloro-m-xylene</i>	5.296	0	6.662	0	79.5	56.9 - 130	4.987	6.01	30	

MSD		Sample ID: HS17050141-01MSD		Units: ug/Kg		Analysis Date: 09-May-2017 01:29				
Client ID: B-5 (3-4')		Run ID: ECD_11_294383		SeqNo: 4083842		PrepDate: 04-May-2017		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	1071	1.7	8.327	107.4	11600	55 - 132	1135	5.83	30	SEO
gamma-Chlordane	41.4	1.7	8.327	0	497	60 - 129	34.24	18.9	30	SEP

The following samples were analyzed in this batch: HS17050141-01 HS17050141-02 HS17050141-03

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: 115899	Instrument: FID-10	Method: TX1005
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MBLK	Sample ID: MBLK-115899	Units: mg/Kg	Analysis Date: 03-May-2017 18:04							
Client ID:	Run ID: FID-10_294251	SeqNo: 4081204	PrepDate: 03-May-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	U	50								
>nC12 to nC28	U	50								
>nC28 to nC35	U	50								
Total Petroleum Hydrocarbon	U	50								
Surr: 2-Fluorobiphenyl	25.13	0	25	0	101	70 - 130				
Surr: Trifluoromethyl benzene	26.91	0	25	0	108	70 - 130				

LCS	Sample ID: LCS-115899	Units: mg/Kg	Analysis Date: 03-May-2017 18:34							
Client ID:	Run ID: FID-10_294251	SeqNo: 4081205	PrepDate: 03-May-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	203.9	50	250	0	81.6	75 - 125				
>nC12 to nC28	226	50	250	0	90.4	75 - 125				
Surr: 2-Fluorobiphenyl	29.24	0	25	0	117	70 - 130				
Surr: Trifluoromethyl benzene	26.88	0	25	0	108	70 - 130				

LCSD	Sample ID: LCSD-115899	Units: mg/Kg	Analysis Date: 03-May-2017 19:03							
Client ID:	Run ID: FID-10_294251	SeqNo: 4081206	PrepDate: 03-May-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	208.5	50	250	0	83.4	75 - 125	203.9	2.22	20	
>nC12 to nC28	224.2	50	250	0	89.7	75 - 125	226	0.808	20	
Surr: 2-Fluorobiphenyl	28.89	0	25	0	116	70 - 130	29.24	1.18	20	
Surr: Trifluoromethyl benzene	26.24	0	25	0	105	70 - 130	26.88	2.43	20	

MS	Sample ID: HS17050037-01MS	Units: mg/Kg	Analysis Date: 03-May-2017 20:02							
Client ID:	Run ID: FID-10_294251	SeqNo: 4081208	PrepDate: 03-May-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	RPD Qual
nC6 to nC12	144.4	37	182.7	0	79.0	75 - 125				
>nC12 to nC28	153.3	37	182.7	0	83.9	75 - 125				
Surr: 2-Fluorobiphenyl	18.14	0	18.27	0	99.3	70 - 130				
Surr: Trifluoromethyl benzene	16.4	0	18.27	0	89.7	70 - 130				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: 115899 **Instrument:** FID-10 **Method:** TX1005

MSD		Sample ID: HS17050037-01MSD			Units: mg/Kg		Analysis Date: 03-May-2017 20:31			
Client ID:		Run ID: FID-10_294251			SeqNo: 4081209		PrepDate: 03-May-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	148.2	38	189.3	0	78.3	75 - 125	144.4	2.63	20	
>nC12 to nC28	156.9	38	189.3	0	82.9	75 - 125	153.3	2.28	20	
<i>Surr: 2-Fluorobiphenyl</i>	17.75	0	18.93	0	93.8	70 - 130	18.14	2.21	20	
<i>Surr: Trifluoromethyl benzene</i>	16.79	0	18.93	0	88.7	70 - 130	16.4	2.36	20	

The following samples were analyzed in this batch: HS17050141-01 HS17050141-02 HS17050141-03

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260						
MBLK	Sample ID: VBLKS1-050317	Units: ug/Kg			Analysis Date: 03-May-2017 09:09					
Client ID:	Run ID: VOA5_294054	SeqNo: 4077004	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	5.0								
1,1,2,2-Tetrachloroethane	U	5.0								
1,1,2-Trichlor-1,2,2-trifluoroethane	U	5.0								
1,1,2-Trichloroethane	U	5.0								
1,1-Dichloroethane	U	5.0								
1,1-Dichloroethene	U	5.0								
1,2,4-Trichlorobenzene	U	5.0								
1,2-Dibromo-3-chloropropane	U	5.0								
1,2-Dibromoethane	U	5.0								
1,2-Dichlorobenzene	U	5.0								
1,2-Dichloroethane	U	5.0								
1,2-Dichloropropane	U	5.0								
1,3-Dichlorobenzene	U	5.0								
1,4-Dichlorobenzene	U	5.0								
2-Butanone	U	10								
2-Hexanone	U	10								
4-Methyl-2-pentanone	U	10								
Acetone	U	20								
Benzene	U	5.0								
Bromodichloromethane	U	5.0								
Bromoform	U	5.0								
Bromomethane	U	10								
Carbon disulfide	U	10								
Carbon tetrachloride	U	5.0								
Chlorobenzene	U	5.0								
Chloroethane	U	10								
Chloroform	U	5.0								
Chloromethane	U	10								
cis-1,2-Dichloroethene	U	5.0								
cis-1,3-Dichloropropene	U	5.0								
Cyclohexane	U	5.0								
Dibromochloromethane	U	5.0								
Dichlorodifluoromethane	U	5.0								
Ethylbenzene	U	5.0								

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054 **Instrument:** VOA5 **Method:** SW8260

MBLK Sample ID: **VBLKS1-050317** Units: **ug/Kg** Analysis Date: **03-May-2017 09:09**
 Client ID: Run ID: **VOA5_294054** SeqNo: **4077004** PrepDate: DF: **1**
 Analyte Result MQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Isopropylbenzene	U	5.0								
m,p-Xylene	U	10								
Methyl acetate	U	5.0								
Methyl tert-butyl ether	U	5.0								
Methylcyclohexane	U	5.0								
Methylene chloride	U	10								
o-Xylene	U	5.0								
Styrene	U	5.0								
Tetrachloroethene	U	5.0								
Toluene	U	5.0								
trans-1,2-Dichloroethene	U	5.0								
trans-1,3-Dichloropropene	U	5.0								
Trichloroethene	U	5.0								
Trichlorofluoromethane	U	5.0								
Vinyl chloride	U	2.0								
Xylenes, Total	U	5.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>46.15</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>92.3</i>	<i>70 - 128</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>47.66</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>95.3</i>	<i>73 - 126</i>				
<i>Surr: Dibromofluoromethane</i>	<i>47.58</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>95.2</i>	<i>71 - 128</i>				
<i>Surr: Toluene-d8</i>	<i>50.43</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>101</i>	<i>73 - 127</i>				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260						
LCS	Sample ID: VLCSS1-050317	Units: ug/Kg			Analysis Date: 03-May-2017 08:23					
Client ID:	Run ID: VOA5_294054	SeqNo: 4077003	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.6	5.0	50	0	101	79 - 128				
1,1,2,2-Tetrachloroethane	49.88	5.0	50	0	99.8	75 - 123				
1,1,2-Trichlor-1,2,2-trifluoroethane	50.6	5.0	50	0	101	76 - 127				
1,1,2-Trichloroethane	48.4	5.0	50	0	96.8	77 - 120				
1,1-Dichloroethane	49.97	5.0	50	0	99.9	75 - 124				
1,1-Dichloroethene	49.24	5.0	50	0	98.5	76 - 128				
1,2,4-Trichlorobenzene	49.53	5.0	50	0	99.1	74 - 128				
1,2-Dibromo-3-chloropropane	50.5	5.0	50	0	101	66 - 129				
1,2-Dibromoethane	49.9	5.0	50	0	99.8	70 - 120				
1,2-Dichlorobenzene	50.23	5.0	50	0	100	75 - 120				
1,2-Dichloroethane	48.37	5.0	50	0	96.7	73 - 121				
1,2-Dichloropropane	47.99	5.0	50	0	96.0	75 - 124				
1,3-Dichlorobenzene	50.42	5.0	50	0	101	70 - 125				
1,4-Dichlorobenzene	49.55	5.0	50	0	99.1	77 - 120				
2-Butanone	100.5	10	100	0	101	65 - 130				
2-Hexanone	100.9	10	100	0	101	65 - 133				
4-Methyl-2-pentanone	102.8	10	100	0	103	69 - 130				
Acetone	105.4	20	100	0	105	53 - 142				
Benzene	49.9	5.0	50	0	99.8	79 - 122				
Bromodichloromethane	49.74	5.0	50	0	99.5	79 - 121				
Bromoform	49.97	5.0	50	0	99.9	74 - 125				
Bromomethane	46.94	10	50	0	93.9	68 - 131				
Carbon disulfide	100.9	10	100	0	101	78 - 131				
Carbon tetrachloride	48.89	5.0	50	0	97.8	74 - 126				
Chlorobenzene	49.62	5.0	50	0	99.2	79 - 120				
Chloroethane	48.96	10	50	0	97.9	74 - 126				
Chloroform	50	5.0	50	0	100	78 - 122				
Chloromethane	47.96	10	50	0	95.9	69 - 129				
cis-1,2-Dichloroethene	48.57	5.0	50	0	97.1	78 - 122				
cis-1,3-Dichloropropene	50.08	5.0	50	0	100	77 - 123				
Cyclohexane	51.01	5.0	50	0	102	74 - 126				
Dibromochloromethane	49.42	5.0	50	0	98.8	78 - 122				
Dichlorodifluoromethane	50.42	5.0	50	0	101	57 - 140				
Ethylbenzene	50.78	5.0	50	0	102	80 - 122				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260						
LCS	Sample ID: VLCSS1-050317	Units: ug/Kg			Analysis Date: 03-May-2017 08:23					
Client ID:	Run ID: VOA5_294054	SeqNo: 4077003		PrepDate:			DF: 1			
Analyte	Result	MLQ	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Isopropylbenzene	51	5.0	50	0	102	72 - 127				
m,p-Xylene	100.5	10	100	0	100	79 - 122				
Methyl acetate	51.71	5.0	50	0	103	69 - 123				
Methyl tert-butyl ether	50.17	5.0	50	0	100	76 - 124				
Methylcyclohexane	50.44	5.0	50	0	101	77 - 127				
Methylene chloride	46.4	10	50	0	92.8	65 - 130				
o-Xylene	51.16	5.0	50	0	102	80 - 123				
Styrene	50.18	5.0	50	0	100	78 - 124				
Tetrachloroethene	49.81	5.0	50	0	99.6	70 - 130				
Toluene	50.09	5.0	50	0	100	79 - 120				
trans-1,2-Dichloroethene	49.1	5.0	50	0	98.2	79 - 122				
trans-1,3-Dichloropropene	51.29	5.0	50	0	103	77 - 120				
Trichloroethene	49.8	5.0	50	0	99.6	75 - 123				
Trichlorofluoromethane	51.5	5.0	50	0	103	75 - 126				
Vinyl chloride	52.58	2.0	50	0	105	76 - 126				
Xylenes, Total	151.6	5.0	150	0	101	79 - 123				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.63</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>103</i>	<i>70 - 128</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>50.9</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>73 - 126</i>				
<i>Surr: Dibromofluoromethane</i>	<i>49.75</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>99.5</i>	<i>71 - 128</i>				
<i>Surr: Toluene-d8</i>	<i>50.05</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>100</i>	<i>73 - 127</i>				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260						
MS	Sample ID: HS17050101-01MS	Units: ug/Kg			Analysis Date: 03-May-2017 13:03					
Client ID:	Run ID: VOA5_294054	SeqNo: 4077206	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	42.9	4.9	49	0	87.6	79 - 128				
1,1,2,2-Tetrachloroethane	52.01	4.9	49	0	106	75 - 123				
1,1,2-Trichlor-1,2,2-trifluoroethane	40.92	4.9	49	0	83.5	76 - 127				
1,1,2-Trichloroethane	43.98	4.9	49	0	89.8	77 - 120				
1,1-Dichloroethane	43.64	4.9	49	0	89.1	75 - 124				
1,1-Dichloroethene	43.72	4.9	49	0	89.2	76 - 128				
1,2,4-Trichlorobenzene	33.37	4.9	49	0	68.1	74 - 128				S
1,2-Dibromo-3-chloropropane	34.09	4.9	49	0	69.6	66 - 129				
1,2-Dibromoethane	39.38	4.9	49	0	80.4	70 - 120				
1,2-Dichlorobenzene	35.29	4.9	49	0	72.0	75 - 120				S
1,2-Dichloroethane	40.66	4.9	49	0	83.0	73 - 121				
1,2-Dichloropropane	41.37	4.9	49	0	84.4	75 - 124				
1,3-Dichlorobenzene	35.68	4.9	49	0	72.8	70 - 125				
1,4-Dichlorobenzene	34.8	4.9	49	0	71.0	77 - 120				S
2-Butanone	82.06	9.8	98	0	83.7	65 - 130				
2-Hexanone	74.18	9.8	98	0	75.7	65 - 133				
4-Methyl-2-pentanone	121.9	9.8	98	0	124	69 - 130				
Acetone	116.5	20	98	0	119	53 - 142				
Benzene	42.54	4.9	49	0	86.8	79 - 122				
Bromodichloromethane	40.07	4.9	49	0	81.8	79 - 121				
Bromoform	37.55	4.9	49	0	76.6	74 - 125				
Bromomethane	39.8	9.8	49	0	81.2	68 - 131				
Carbon disulfide	86.17	9.8	98	0	87.9	78 - 131				
Carbon tetrachloride	39.26	4.9	49	0	80.1	74 - 126				
Chlorobenzene	39.91	4.9	49	0	81.5	79 - 120				
Chloroethane	42.64	9.8	49	0	87.0	74 - 126				
Chloroform	42.73	4.9	49	0	87.2	78 - 122				
Chloromethane	44.5	9.8	49	0	90.8	69 - 129				
cis-1,2-Dichloroethene	41.97	4.9	49	0	85.7	78 - 122				
cis-1,3-Dichloropropene	41.29	4.9	49	0	84.3	77 - 123				
Cyclohexane	41.93	4.9	49	0	85.6	74 - 126				
Dibromochloromethane	39.3	4.9	49	0	80.2	78 - 122				
Dichlorodifluoromethane	43.97	4.9	49	0	89.7	57 - 140				
Ethylbenzene	42.87	4.9	49	0	87.5	80 - 122				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260						
MS	Sample ID: HS17050101-01MS	Units: ug/Kg			Analysis Date: 03-May-2017 13:03					
Client ID:	Run ID: VOA5_294054	SeqNo: 4077206		PrepDate:		DF: 1				
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Isopropylbenzene	74.59	4.9	49	0	152	72 - 127				S
m,p-Xylene	79.85	9.8	98	0	81.5	79 - 122				
Methyl acetate	39.39	4.9	49	0	80.4	69 - 123				
Methyl tert-butyl ether	42.59	4.9	49	0	86.9	76 - 124				
Methylcyclohexane	318.8	4.9	49	0	651	77 - 127				SE
Methylene chloride	40.76	9.8	49	0	83.2	65 - 130				
o-Xylene	39.41	4.9	49	0	80.4	80 - 123				
Styrene	39.68	4.9	49	0	81.0	78 - 124				
Tetrachloroethene	53.84	4.9	49	0	110	70 - 130				
Toluene	40.66	4.9	49	0	83.0	79 - 120				
trans-1,2-Dichloroethene	43.33	4.9	49	0	88.4	79 - 122				
trans-1,3-Dichloropropene	41.46	4.9	49	0	84.6	77 - 120				
Trichloroethene	42.33	4.9	49	0	86.4	75 - 123				
Trichlorofluoromethane	43.52	4.9	49	0	88.8	75 - 126				
Vinyl chloride	46.21	2.0	49	0	94.3	76 - 126				
Xylenes, Total	119.3	4.9	147	0	81.1	79 - 123				
Surr: 1,2-Dichloroethane-d4	49.22	0	49	0	100	70 - 128				
Surr: 4-Bromofluorobenzene	44.78	0	49	0	91.4	73 - 126				
Surr: Dibromofluoromethane	48	0	49	0	98.0	71 - 128				
Surr: Toluene-d8	49.12	0	49	0	100	73 - 127				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260						
MSD	Sample ID: HS17050101-01MSD	Units: ug/Kg			Analysis Date: 03-May-2017 13:27					
Client ID:	Run ID: VOA5_294054	SeqNo: 4077207	PrepDate:	DF: 1						
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.56	4.9	49	0	95.0	79 - 128	42.9	8.18	30	
1,1,2,2-Tetrachloroethane	60.86	4.9	49	0	124	75 - 123	52.01	15.7	30	S
1,1,2-Trichlor-1,2,2-trifluoroethane	44.31	4.9	49	0	90.4	76 - 127	40.92	7.95	30	
1,1,2-Trichloroethane	49.22	4.9	49	0	100	77 - 120	43.98	11.3	30	
1,1-Dichloroethane	48.36	4.9	49	0	98.7	75 - 124	43.64	10.3	30	
1,1-Dichloroethene	47.76	4.9	49	0	97.5	76 - 128	43.72	8.83	30	
1,2,4-Trichlorobenzene	30.23	4.9	49	0	61.7	74 - 128	33.37	9.88	30	S
1,2-Dibromo-3-chloropropane	35.85	4.9	49	0	73.2	66 - 129	34.09	5.05	30	
1,2-Dibromoethane	43.94	4.9	49	0	89.7	70 - 120	39.38	10.9	30	
1,2-Dichlorobenzene	34.61	4.9	49	0	70.6	75 - 120	35.29	1.94	30	S
1,2-Dichloroethane	45.97	4.9	49	0	93.8	73 - 121	40.66	12.3	30	
1,2-Dichloropropane	44.62	4.9	49	0	91.1	75 - 124	41.37	7.55	30	
1,3-Dichlorobenzene	34.72	4.9	49	0	70.8	70 - 125	35.68	2.74	30	
1,4-Dichlorobenzene	33.76	4.9	49	0	68.9	77 - 120	34.8	3.06	30	S
2-Butanone	98.79	9.8	98	0	101	65 - 130	82.06	18.5	30	
2-Hexanone	83.55	9.8	98	0	85.3	65 - 133	74.18	11.9	30	
4-Methyl-2-pentanone	143.5	9.8	98	0	146	69 - 130	121.9	16.2	30	S
Acetone	148.3	20	98	0	151	53 - 142	116.5	24	30	S
Benzene	46.33	4.9	49	0	94.5	79 - 122	42.54	8.52	30	
Bromodichloromethane	44.38	4.9	49	0	90.6	79 - 121	40.07	10.2	30	
Bromoform	41.24	4.9	49	0	84.2	74 - 125	37.55	9.36	30	
Bromomethane	44.33	9.8	49	0	90.5	68 - 131	39.8	10.8	30	
Carbon disulfide	94.89	9.8	98	0	96.8	78 - 131	86.17	9.63	30	
Carbon tetrachloride	43.61	4.9	49	0	89.0	74 - 126	39.26	10.5	30	
Chlorobenzene	40.71	4.9	49	0	83.1	79 - 120	39.91	1.97	30	
Chloroethane	48.49	9.8	49	0	99.0	74 - 126	42.64	12.8	30	
Chloroform	46.44	4.9	49	0	94.8	78 - 122	42.73	8.33	30	
Chloromethane	50.2	9.8	49	0	102	69 - 129	44.5	12	30	
cis-1,2-Dichloroethene	46.21	4.9	49	0	94.3	78 - 122	41.97	9.61	30	
cis-1,3-Dichloropropene	44.8	4.9	49	0	91.4	77 - 123	41.29	8.16	30	
Cyclohexane	43.51	4.9	49	0	88.8	74 - 126	41.93	3.72	30	
Dibromochloromethane	43.7	4.9	49	0	89.2	78 - 122	39.3	10.6	30	
Dichlorodifluoromethane	49.04	4.9	49	0	100	57 - 140	43.97	10.9	30	
Ethylbenzene	45.08	4.9	49	0	92.0	80 - 122	42.87	5.04	30	

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294054		Instrument: VOA5		Method: SW8260							
MSD	Sample ID: HS17050101-01MSD	Units: ug/Kg			Analysis Date: 03-May-2017 13:27						
Client ID:	Run ID: VOA5_294054	SeqNo: 4077207		PrepDate:		DF: 1					
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Isopropylbenzene	93.08	4.9	49	0	190	72 - 127	74.59	22.1	30	S	
m,p-Xylene	80.62	9.8	98	0	82.3	79 - 122	79.85	0.959	30		
Methyl acetate	50.33	4.9	49	0	103	69 - 123	39.39	24.4	30		
Methyl tert-butyl ether	47.56	4.9	49	0	97.1	76 - 124	42.59	11	30		
Methylcyclohexane	404.2	4.9	49	0	825	77 - 127	318.8	23.6	30	SE	
Methylene chloride	44.79	9.8	49	0	91.4	65 - 130	40.76	9.41	30		
o-Xylene	39.98	4.9	49	0	81.6	80 - 123	39.41	1.44	30		
Styrene	40.04	4.9	49	0	81.7	78 - 124	39.68	0.881	30		
Tetrachloroethene	51.24	4.9	49	0	105	70 - 130	53.84	4.95	30		
Toluene	42.78	4.9	49	0	87.3	79 - 120	40.66	5.08	30		
trans-1,2-Dichloroethene	47.37	4.9	49	0	96.7	79 - 122	43.33	8.9	30		
trans-1,3-Dichloropropene	46.6	4.9	49	0	95.1	77 - 120	41.46	11.7	30		
Trichloroethene	45.11	4.9	49	0	92.1	75 - 123	42.33	6.37	30		
Trichlorofluoromethane	48.55	4.9	49	0	99.1	75 - 126	43.52	10.9	30		
Vinyl chloride	51.83	2.0	49	0	106	76 - 126	46.21	11.5	30		
Xylenes, Total	120.6	4.9	147	0	82.0	79 - 123	119.3	1.12	30		
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>49.91</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>102</i>	<i>70 - 128</i>	<i>49.22</i>	<i>1.38</i>	<i>30</i>		
<i>Surr: 4-Bromofluorobenzene</i>	<i>44.34</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>90.5</i>	<i>73 - 126</i>	<i>44.78</i>	<i>1</i>	<i>30</i>		
<i>Surr: Dibromofluoromethane</i>	<i>48.87</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>99.7</i>	<i>71 - 128</i>	<i>48</i>	<i>1.8</i>	<i>30</i>		
<i>Surr: Toluene-d8</i>	<i>50.47</i>	<i>0</i>	<i>49</i>	<i>0</i>	<i>103</i>	<i>73 - 127</i>	<i>49.12</i>	<i>2.71</i>	<i>30</i>		

The following samples were analyzed in this batch: HS17050141-01 HS17050141-02 HS17050141-03

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

QC BATCH REPORT

Batch ID: R294137	Instrument: Balance1	Method: SW3550
--------------------------	-----------------------------	-----------------------

DUP	Sample ID: HS17050178-01DUP	Units: wt%	Analysis Date: 04-May-2017 07:58							
Client ID:	Run ID: Balance1_294137	SeqNo: 4078522	PrepDate: DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Percent Moisture	26	0.0100	25.8	0.772	20
------------------	----	--------	------	-------	----

The following samples were analyzed in this batch:

HS17050141-01	HS17050141-02	HS17050141-03
---------------	---------------	---------------

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
WorkOrder: HS17050141

**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/Kg-dry	Milligrams per Kilogram- Dry weight corrected

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kansas	E-10352 2016-2017	31-Jul-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624-2017	31-Dec-2017
Oklahoma	2016-122	31-Aug-2017
Texas	T104704231-17-18	30-Apr-2018

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd 1483.003.005
Work Order: HS17050141

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS17050141-01	B-5 (3-4')	Login	5/3/2017 2:52:10 PM	BAF	SPA187
HS17050141-01	B-5 (3-4')	Login	5/3/2017 2:52:10 PM	BAF	LF012
HS17050141-01	B-5 (3-4')	Login	5/3/2017 2:52:10 PM	BAF	5035
HS17050141-02	B-5 (5-6')	Login	5/3/2017 2:52:10 PM	BAF	SPA187
HS17050141-02	B-5 (5-6')	Login	5/3/2017 2:52:10 PM	BAF	LF012
HS17050141-02	B-5 (5-6')	Login	5/3/2017 2:52:10 PM	BAF	5035
HS17050141-03	B-6 (1-2')	Login	5/3/2017 2:52:10 PM	BAF	SPA187
HS17050141-03	B-6 (1-2')	Login	5/3/2017 2:52:10 PM	BAF	LF012
HS17050141-03	B-6 (1-2')	Login	5/3/2017 2:52:10 PM	BAF	5035

Sample Receipt Checklist

Client Name: WM_PLANO_AP
 Work Order: HS17050141

Date/Time Received: **02-May-2017 15:15**
 Received by: **RPG**

Checklist completed by: Cesar A. Lira 3-May-2017
 eSignature Date

Reviewed by: Bernadette A. Fini 4-May-2017
 eSignature Date

Matrices: **Solid**

Carrier name: **FedEx**

- 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): 0.8c/1.4c uc/c IR20

Cooler(s)/Kit(s): 42795

Date/Time sample(s) sent to storage: 5/3/2017 1500

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:



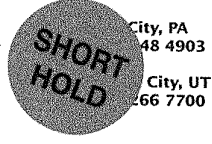
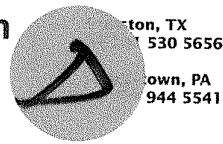
Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

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

Chain of Custody Form

Page 1 of 1

COC ID: 140302



Plano, TX
750 5656
Pittsburgh, PA
944 5541

City, PA
48 4903
City, UT
866 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Environmental

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	1714 Vaughn Blvd.	A	VOCs											
Work Order		Project Number	1483.003.005	B	TPH											
Company Name	W&M Environmental Group	Bill To Company	Same	C	RCRA-8 Metals											
Send Report To	Michael Henn	Invoice Attn	Accounts Payable	D												
Address	906 East 18th Street Suite 100	Address	Same	E												
City/State/Zip	Plano, TX 75074	City/State/Zip		F												
Phone	(972) 516-0300	Phone		G												
Fax		Fax		H												
e-Mail Address	mhenn@wh-m.com	e-Mail Address		I												
				J												

HS17050141

W&M Environmental Group, Inc.
1714 Vaughn Blvd




No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	B-5 (3-4')	5/2/17	1110	S	5035	6	X	X									
2	B-5 (5-6')		1130														
3	B-6 (1-2')		1210														
4	B-6 (3-4')		1245														
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign TREY NELSON		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:			
				<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour							
Relinquished by:	Date:	Time:	Received by:	Notes:							
TREY NELSON	5/2/17	1515	[Signature]	TRRP Reporting							
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp	QC Package: (Check One Box Below)					
[Signature]	5-2-17	1830	R. Cigg	42795	0.8	<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other					
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	1220							
				CR-06							

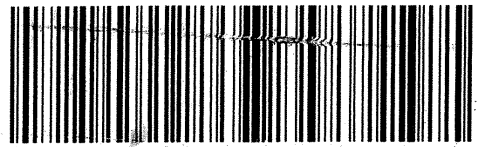
- Note:
- Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 - Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 - The Chain of Custody is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

Copyright 2012 by ALS Environmental.

 ALS Environmental 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>
	42795 Date: <i>5-2-17</i> Time: <i>18:00</i> Name: <i>J. Wood</i> Company: <i>BZ</i>		

42795 MAY 03 2017

FedEx **WED - 03 MAY 10:30A T**
 TRK# 6786 7205 1560 **PRIORITY OVERNIGHT**
 0221
AB SGRA 42795 **77099**
 TX-US IAH





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

August 09, 2017

Clay Snider
W&M Environmental Group, Inc.
906 E. 18th Street (STE 100)
Plano, TX 75074

Work Order: **HS17071540**

Laboratory Results for: **1714 Vaughn 1483.003.005**

Dear Clay,

ALS Environmental received 14 sample(s) on Jul 28, 2017 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: Dayna.Fisher
Bernadette A. Fini
Project Manager

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.



Bernadette A. Fini
Project Manager

Laboratory Review Checklist: Reportable Data							
Laboratory Name: ALS Laboratory Group			LRC Date: 08/09/2017				
Project Name: 1714 Vaughn 1483.003.005			Laboratory Job Number: HS17071540				
Reviewer Name: Bernadette A. Fini			Prep Batch Number(s): 118855, R299316				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 08/09/2017			
Project Name: 1714 Vaughn 1483.003.005				Laboratory Job Number: HS17071540			
Reviewer Name: Bernadette A. Fini				Prep Batch Number(s): 118855, R299316			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?		X			2
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: ALS Laboratory Group		LRC Date: 08/09/2017
Project Name: 1714 Vaughn 1483.003.005		Laboratory Job Number: HS17071540
Reviewer Name: Bernadette A. Fini		Prep Batch Number(s): 118855, R299316
ER# ⁵	Description	
1	Sample container for MW-5 (4-5') received broken, sample transferred to new container at Login.	
2	Results are P qualified for alpha-Chlordane and/or Endrin ketone in Samples MW-5 (4-5'), B-10 (5-6'), B-9 (5-6'). This indicates possible coelution or matrix interference on the confirming column	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
Work Order: HS17071540

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17071540-01	B-7 (5-6')	Soil		28-Jul-2017 09:50	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-02	B-7 (6-7')	Soil		28-Jul-2017 09:55	28-Jul-2017 17:35	<input type="checkbox"/>
HS17071540-03	B-7 (9-10')	Soil		28-Jul-2017 10:00	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-04	MW-5 (4-5')	Soil		28-Jul-2017 10:20	28-Jul-2017 17:35	<input type="checkbox"/>
HS17071540-05	MW-5 (6-7')	Soil		28-Jul-2017 10:30	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-06	MW-5 (9-10')	Soil		28-Jul-2017 10:35	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-07	B-8 (2.5-3')	Soil		28-Jul-2017 13:20	28-Jul-2017 17:35	<input type="checkbox"/>
HS17071540-08	B-10 (5-6')	Soil		28-Jul-2017 13:55	28-Jul-2017 17:35	<input type="checkbox"/>
HS17071540-09	B-10 (6-7')	Soil		28-Jul-2017 14:00	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-10	B-10 (9-10')	Soil		28-Jul-2017 14:05	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-11	B-9 (5-6')	Soil		28-Jul-2017 14:20	28-Jul-2017 17:35	<input type="checkbox"/>
HS17071540-12	B-9 (6-7')	Soil		28-Jul-2017 14:25	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-13	B-9 (9-10')	Soil		28-Jul-2017 14:30	28-Jul-2017 17:35	<input checked="" type="checkbox"/>
HS17071540-14	DUP-01	Soil		28-Jul-2017 00:01	28-Jul-2017 17:35	<input checked="" type="checkbox"/>

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn 1483.003.005
 Sample ID: B-7 (6-7')
 Collection Date: 28-Jul-2017 09:55

ANALYTICAL REPORT
 WorkOrder:HS17071540
 Lab ID:HS17071540-02
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081			Prep:SW3546 / 02-Aug-2017		Analyst: STH
4,4'-DDD	U		0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
4,4'-DDE	U		0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
4,4'-DDT	U		0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
Aldrin	U		0.00036	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
alpha-BHC	U		0.00036	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
beta-BHC	U		0.00036	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
Chlordane	U		0.0024	0.020	mg/Kg-dry	1	07-Aug-2017 17:59
delta-BHC	U		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
Dieldrin	0.0053		0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
Endosulfan I	U		0.00036	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
Endosulfan II	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
Endosulfan sulfate	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
Endrin	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
Endrin aldehyde	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
Endrin ketone	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 17:59
gamma-BHC	U		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
Heptachlor	U		0.00036	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
Heptachlor epoxide	U		0.00036	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
Methoxychlor	U		0.0040	0.020	mg/Kg-dry	1	07-Aug-2017 17:59
Toxaphene	U		0.0057	0.020	mg/Kg-dry	1	07-Aug-2017 17:59
<i>Surr: Decachlorobiphenyl</i>	<i>80.4</i>			<i>59-144</i>	<i>%REC</i>	<i>1</i>	<i>07-Aug-2017 17:59</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>59.0</i>			<i>56.9-130</i>	<i>%REC</i>	<i>1</i>	<i>07-Aug-2017 17:59</i>
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081			Prep:SW3546 / 02-Aug-2017		Analyst: STH
alpha-Chlordane	U		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
gamma-Chlordane	U		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 17:59
MOISTURE		Method:SW3550					Analyst: DFF
Percent Moisture	15.9		0.0100	0.0100	wt%	1	01-Aug-2017 11:40

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn 1483.003.005
 Sample ID: MW-5 (4-5')
 Collection Date: 28-Jul-2017 10:20

ANALYTICAL REPORT
 WorkOrder:HS17071540
 Lab ID:HS17071540-04
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 02-Aug-2017		Analyst: STH	
4,4'-DDD	0.0078		0.00058	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
4,4'-DDE	0.0058		0.00058	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
4,4'-DDT	0.010		0.00058	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
Aldrin	U		0.00035	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
alpha-BHC	U		0.00035	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
beta-BHC	U		0.00035	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
Chlordane	U		0.0023	0.019	mg/Kg-dry	1	07-Aug-2017 19:06
delta-BHC	U		0.00023	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
Dieldrin	0.085		0.0012	0.0076	mg/Kg-dry	2	08-Aug-2017 13:45
Endosulfan I	U		0.00035	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
Endosulfan II	U		0.00069	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
Endosulfan sulfate	U		0.00069	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
Endrin	U		0.00069	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
Endrin aldehyde	U		0.00069	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
Endrin ketone	U		0.00069	0.0038	mg/Kg-dry	1	07-Aug-2017 19:06
gamma-BHC	U		0.00023	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
Heptachlor	0.0038		0.00035	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
Heptachlor epoxide	0.016		0.00035	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
Methoxychlor	U		0.0039	0.019	mg/Kg-dry	1	07-Aug-2017 19:06
Toxaphene	U		0.0055	0.019	mg/Kg-dry	1	07-Aug-2017 19:06
Surr: Decachlorobiphenyl	88.7			59-144	%REC	1	07-Aug-2017 19:06
Surr: Tetrachloro-m-xylene	68.2			56.9-130	%REC	1	07-Aug-2017 19:06
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 02-Aug-2017		Analyst: STH	
alpha-Chlordane	0.018	P	0.00023	0.0019	mg/Kg-dry	1	07-Aug-2017 19:06
gamma-Chlordane	0.030		0.00046	0.0038	mg/Kg-dry	2	08-Aug-2017 13:45
MOISTURE		Method:SW3550				Analyst: DFF	
Percent Moisture	13.4		0.0100	0.0100	wt%	1	01-Aug-2017 11:40

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn 1483.003.005
 Sample ID: B-8 (2.5-3')
 Collection Date: 28-Jul-2017 13:20

ANALYTICAL REPORT
 WorkOrder:HS17071540
 Lab ID:HS17071540-07
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081			Prep:SW3546 / 02-Aug-2017		Analyst: STH
4,4'-DDD	U		0.00056	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
4,4'-DDE	U		0.00056	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
4,4'-DDT	U		0.00056	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
Aldrin	U		0.00034	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
alpha-BHC	U		0.00034	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
beta-BHC	U		0.00034	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
Chlordane	U		0.0022	0.019	mg/Kg-dry	1	07-Aug-2017 19:28
delta-BHC	U		0.00022	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
Dieldrin	U		0.00056	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
Endosulfan I	U		0.00034	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
Endosulfan II	U		0.00067	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
Endosulfan sulfate	U		0.00067	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
Endrin	U		0.00067	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
Endrin aldehyde	U		0.00067	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
Endrin ketone	U		0.00067	0.0037	mg/Kg-dry	1	07-Aug-2017 19:28
gamma-BHC	U		0.00022	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
Heptachlor	U		0.00034	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
Heptachlor epoxide	U		0.00034	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
Methoxychlor	U		0.0038	0.019	mg/Kg-dry	1	07-Aug-2017 19:28
Toxaphene	U		0.0054	0.019	mg/Kg-dry	1	07-Aug-2017 19:28
Surr: Decachlorobiphenyl	84.6			59-144	%REC	1	07-Aug-2017 19:28
Surr: Tetrachloro-m-xylene	64.7			56.9-130	%REC	1	07-Aug-2017 19:28
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081			Prep:SW3546 / 02-Aug-2017		Analyst: STH
alpha-Chlordane	U		0.00022	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
gamma-Chlordane	U		0.00022	0.0019	mg/Kg-dry	1	07-Aug-2017 19:28
MOISTURE		Method:SW3550					Analyst: DFF
Percent Moisture	10.6		0.0100	0.0100	wt%	1	01-Aug-2017 11:40

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn 1483.003.005
 Sample ID: B-10 (5-6')
 Collection Date: 28-Jul-2017 13:55

ANALYTICAL REPORT
 WorkOrder:HS17071540
 Lab ID:HS17071540-08
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 02-Aug-2017		Analyst: STH	
4,4'-DDD	0.0013	J	0.00061	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
4,4'-DDE	0.0011	J	0.00061	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
4,4'-DDT	0.0032	J	0.00061	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
Aldrin		U	0.00037	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
alpha-BHC		U	0.00037	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
beta-BHC		U	0.00037	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
Chlordane		U	0.0024	0.020	mg/Kg-dry	1	07-Aug-2017 19:51
delta-BHC		U	0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
Dieldrin	0.059		0.0012	0.0080	mg/Kg-dry	2	08-Aug-2017 14:08
Endosulfan I		U	0.00037	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
Endosulfan II		U	0.00073	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
Endosulfan sulfate		U	0.00073	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
Endrin	0.0018	J	0.00073	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
Endrin aldehyde		U	0.00073	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
Endrin ketone		U	0.00073	0.0040	mg/Kg-dry	1	07-Aug-2017 19:51
gamma-BHC		U	0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
Heptachlor		U	0.00037	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
Heptachlor epoxide	0.0024		0.00037	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
Methoxychlor		U	0.0041	0.020	mg/Kg-dry	1	07-Aug-2017 19:51
Toxaphene		U	0.0059	0.020	mg/Kg-dry	1	07-Aug-2017 19:51
<i>Surr: Decachlorobiphenyl</i>	<i>125</i>			<i>59-144</i>	<i>%REC</i>	<i>1</i>	<i>07-Aug-2017 19:51</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>80.7</i>			<i>56.9-130</i>	<i>%REC</i>	<i>1</i>	<i>07-Aug-2017 19:51</i>
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 02-Aug-2017		Analyst: STH	
alpha-Chlordane	0.0034	P	0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
gamma-Chlordane	0.0059		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 19:51
MOISTURE		Method:SW3550				Analyst: DFF	
Percent Moisture	18.2		0.0100	0.0100	wt%	1	01-Aug-2017 11:40

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

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn 1483.003.005
 Sample ID: B-9 (5-6')
 Collection Date: 28-Jul-2017 14:20

ANALYTICAL REPORT
 WorkOrder:HS17071540
 Lab ID:HS17071540-11
 Matrix:Soil

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 02-Aug-2017		Analyst: STH	
4,4'-DDD	U		0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
4,4'-DDE	0.0014	J	0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
4,4'-DDT	0.0027	J	0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
Aldrin	0.0032		0.00035	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
alpha-BHC	U		0.00035	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
beta-BHC	U		0.00035	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
Chlordane	U		0.0024	0.020	mg/Kg-dry	1	07-Aug-2017 20:14
delta-BHC	U		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
Dieldrin	0.062		0.00059	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
Endosulfan I	U		0.00035	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
Endosulfan II	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
Endosulfan sulfate	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
Endrin	0.0018	J	0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
Endrin aldehyde	U		0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
Endrin ketone	0.0054	P	0.00071	0.0039	mg/Kg-dry	1	07-Aug-2017 20:14
gamma-BHC	U		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
Heptachlor	0.0032		0.00035	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
Heptachlor epoxide	0.0011	J	0.00035	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
Methoxychlor	U		0.0040	0.020	mg/Kg-dry	1	07-Aug-2017 20:14
Toxaphene	U		0.0057	0.020	mg/Kg-dry	1	07-Aug-2017 20:14
<i>Surr: Decachlorobiphenyl</i>	90.2			59-144	%REC	1	07-Aug-2017 20:14
<i>Surr: Tetrachloro-m-xylene</i>	63.7			56.9-130	%REC	1	07-Aug-2017 20:14
MISCELLANEOUS PESTICIDES BY SW8081B		Method:SW8081		Prep:SW3546 / 02-Aug-2017		Analyst: STH	
alpha-Chlordane	0.0023	P	0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
gamma-Chlordane	0.0050		0.00024	0.0020	mg/Kg-dry	1	07-Aug-2017 20:14
MOISTURE		Method:SW3550				Analyst: DFF	
Percent Moisture	15.3		0.0100	0.0100	wt%	1	01-Aug-2017 11:40

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

WEIGHT LOG**Client:** W&M Environmental Group, Inc.**Project:** 1714 Vaughn 1483.003.005**WorkOrder:** HS17071540**Batch ID:** 118855 **Method:** MISCELLANEOUS PESTICIDES BY SW8081B **Prep:** PESTPR_MW

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17071540-02	1	15.02	5 (mL)	0.3329
HS17071540-04	1	15.06	5 (mL)	0.332
HS17071540-07	1	15	5 (mL)	0.3333
HS17071540-08	1	15.04	5 (mL)	0.3324
HS17071540-11	1	15.01	5 (mL)	0.3331
HS17071540-02	1	15.02	5 (mL)	0.3329
HS17071540-04	1	15.06	5 (mL)	0.332
HS17071540-07	1	15	5 (mL)	0.3333
HS17071540-08	1	15.04	5 (mL)	0.3324
HS17071540-11	1	15.01	5 (mL)	0.3331

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 118855	Test Name : MISCELLANEOUS PESTICIDES BY SW8081B			Matrix: Soil		
HS17071540-02	B-7 (6-7')	28 Jul 2017 09:55		02 Aug 2017 13:13	07 Aug 2017 17:59	1
HS17071540-02	B-7 (6-7')	28 Jul 2017 09:55		02 Aug 2017 13:13	07 Aug 2017 17:59	1
HS17071540-04	MW-5 (4-5')	28 Jul 2017 10:20		02 Aug 2017 13:13	08 Aug 2017 13:45	2
HS17071540-04	MW-5 (4-5')	28 Jul 2017 10:20		02 Aug 2017 13:13	08 Aug 2017 13:45	2
HS17071540-04	MW-5 (4-5')	28 Jul 2017 10:20		02 Aug 2017 13:13	07 Aug 2017 19:06	1
HS17071540-04	MW-5 (4-5')	28 Jul 2017 10:20		02 Aug 2017 13:13	07 Aug 2017 19:06	1
HS17071540-07	B-8 (2.5-3')	28 Jul 2017 13:20		02 Aug 2017 13:13	07 Aug 2017 19:28	1
HS17071540-07	B-8 (2.5-3')	28 Jul 2017 13:20		02 Aug 2017 13:13	07 Aug 2017 19:28	1
HS17071540-08	B-10 (5-6')	28 Jul 2017 13:55		02 Aug 2017 13:13	08 Aug 2017 14:08	2
HS17071540-08	B-10 (5-6')	28 Jul 2017 13:55		02 Aug 2017 13:13	07 Aug 2017 19:51	1
HS17071540-08	B-10 (5-6')	28 Jul 2017 13:55		02 Aug 2017 13:13	07 Aug 2017 19:51	1
HS17071540-11	B-9 (5-6')	28 Jul 2017 14:20		02 Aug 2017 13:13	07 Aug 2017 20:14	1
HS17071540-11	B-9 (5-6')	28 Jul 2017 14:20		02 Aug 2017 13:13	07 Aug 2017 20:14	1
Batch ID R299316	Test Name : MOISTURE			Matrix: Soil		
HS17071540-02	B-7 (6-7')	28 Jul 2017 09:55			01 Aug 2017 11:40	1
HS17071540-04	MW-5 (4-5')	28 Jul 2017 10:20			01 Aug 2017 11:40	1
HS17071540-07	B-8 (2.5-3')	28 Jul 2017 13:20			01 Aug 2017 11:40	1
HS17071540-08	B-10 (5-6')	28 Jul 2017 13:55			01 Aug 2017 11:40	1
HS17071540-11	B-9 (5-6')	28 Jul 2017 14:20			01 Aug 2017 11:40	1

WorkOrder: HS17071540
 InstrumentID: ECD_11
 Test Code: 8081_S
 Test Number: SW8081
 Test Name: Organochlorine Pesticides by

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	4,4'-DDD	72-54-8	0.00083	0.0010	0.00050	0.0033
A	4,4'-DDE	72-55-9	0.00083	0.00071	0.00050	0.0033
A	4,4'-DDT	50-29-3	0.00083	0.00094	0.00050	0.0033
A	Aldrin	309-00-2	0.00042	0.00040	0.00030	0.0017
A	alpha-BHC	319-84-6	0.00042	0.00040	0.00030	0.0017
A	beta-BHC	319-85-7	0.00042	0.00011	0.00030	0.0017
A	Chlordane	57-74-9	0.0083	0.0059	0.0020	0.017
A	delta-BHC	319-86-8	0.00042	0.00038	0.00020	0.0017
A	Dieldrin	60-57-1	0.00083	0.00075	0.00050	0.0033
A	Endosulfan I	959-98-8	0.00042	0.00037	0.00030	0.0017
A	Endosulfan II	33213-65-9	0.00083	0.00068	0.00060	0.0033
A	Endosulfan sulfate	1031-07-8	0.00083	0.00094	0.00060	0.0033
A	Endrin	72-20-8	0.00083	0.00094	0.00060	0.0033
A	Endrin aldehyde	7421-93-4	0.00083	0.00083	0.00060	0.0033
A	Endrin ketone	53494-70-5	0.00083	0.00087	0.00060	0.0033
A	gamma-BHC	58-89-9	0.00042	0.00054	0.00020	0.0017
A	Heptachlor	76-44-8	0.00042	0.00047	0.00030	0.0017
A	Heptachlor epoxide	1024-57-3	0.00042	0.00037	0.00030	0.0017
A	Methoxychlor	72-43-5	0.0042	0.00067	0.0034	0.017
A	Toxaphene	8001-35-2	0.0083	0.0062	0.0048	0.017
S	Decachlorobiphenyl	2051-24-3	0	0	0	0
S	Tetrachloro-m-xylene	877-09-8	0	0	0	0

WorkOrder: HS17071540
 InstrumentID: ECD_11
 Test Code: 8081-MISC._S
 Test Number: SW8081
 Test Name: Miscellaneous Pesticides by

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Solid

Units: mg/Kg

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	alpha-Chlordane	5103-71-9	0.00083	0.00043	0.00020	0.0017
A	gamma-Chlordane	5103-74-2	0.00083	0.00018	0.00020	0.0017

WorkOrder: HS17071540
InstrumentID: Balance1
Test Code: MOIST_SW3550
Test Number: SW3550
Test Name: Moisture

**METHOD DETECTION /
REPORTING LIMITS**

Matrix: Solid **Units:** wt%

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Percent Moisture	MOIST	0.0100	0.0100	0.0100	0.0100

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

QC BATCH REPORT

Batch ID: 118855	Instrument: ECD_11	Method: SW8081								
MBLK	Sample ID: MBLK-118855	Units: ug/Kg	Analysis Date: 07-Aug-2017 17:15							
Client ID:	Run ID: ECD_11_299671	SeqNo: 4191077	PrepDate: 02-Aug-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

4,4'-DDD	U	3.3								
4,4'-DDE	U	3.3								
4,4'-DDT	U	3.3								
Aldrin	U	1.7								
alpha-BHC	U	1.7								
beta-BHC	U	1.7								
Chlordane	U	17								
delta-BHC	U	1.7								
Dieldrin	U	3.3								
Endosulfan I	U	1.7								
Endosulfan II	U	3.3								
Endosulfan sulfate	U	3.3								
Endrin	U	3.3								
Endrin aldehyde	U	3.3								
Endrin ketone	U	3.3								
gamma-BHC	U	1.7								
Heptachlor	U	1.7								
Heptachlor epoxide	U	1.7								
Methoxychlor	U	17								
Toxaphene	U	17								
<i>Surr: Decachlorobiphenyl</i>	6.968	0	6.627	0	105	59 - 144				
<i>Surr: Tetrachloro-m-xylene</i>	5.846	0	6.627	0	88.2	56.9 - 130				

MBLK	Sample ID: MBLK-118855	Units: ug/Kg	Analysis Date: 07-Aug-2017 17:15							
Client ID:	Run ID: ECD_11_299671	SeqNo: 4191506	PrepDate: 02-Aug-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	U	1.7								
gamma-Chlordane	U	1.7								

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

QC BATCH REPORT

Batch ID: 118855	Instrument: ECD_11	Method: SW8081
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LCS		Sample ID: LCS-118855	Units: ug/Kg			Analysis Date: 07-Aug-2017 17:37				
Client ID:		Run ID: ECD_11_299671	SeqNo: 4191078		PrepDate: 02-Aug-2017		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	13.77	3.3	16.58	0	83.1	53 - 138				
4,4'-DDE	14.06	3.3	16.58	0	84.8	57 - 136				
4,4'-DDT	14.84	3.3	16.58	0	89.5	53 - 139				
Aldrin	6.699	1.7	8.289	0	80.8	52 - 130				
alpha-BHC	6.329	1.7	8.289	0	76.4	52 - 130				
beta-BHC	7.573	1.7	8.289	0	91.4	62 - 130				
delta-BHC	5.145	1.7	8.289	0	62.1	41 - 137				
Dieldrin	13.75	3.3	16.58	0	82.9	54 - 138				
Endosulfan I	7.075	1.7	8.289	0	85.3	55 - 132				
Endosulfan II	14.83	3.3	16.58	0	89.5	59 - 134				
Endosulfan sulfate	13.87	3.3	16.58	0	83.7	54 - 141				
Endrin	14.88	3.3	16.58	0	89.8	60 - 157				
Endrin aldehyde	14.38	3.3	16.58	0	86.8	56 - 146				
Endrin ketone	15.93	3.3	16.58	0	96.1	56 - 153				
gamma-BHC	6.916	1.7	8.289	0	83.4	52 - 133				
Heptachlor	6.69	1.7	8.289	0	80.7	54 - 134				
Heptachlor epoxide	7.051	1.7	8.289	0	85.1	58 - 130				
Methoxychlor	73.41	17	82.86	0	88.6	60 - 140				
<i>Surr: Decachlorobiphenyl</i>	<i>6.474</i>	<i>0</i>	<i>6.631</i>	<i>0</i>	<i>97.6</i>	<i>59 - 144</i>				
<i>Surr: Tetrachloro-m-xylene</i>	<i>4.894</i>	<i>0</i>	<i>6.631</i>	<i>0</i>	<i>73.8</i>	<i>56.9 - 130</i>				

LCS		Sample ID: LCS-118855	Units: ug/Kg			Analysis Date: 07-Aug-2017 17:37				
Client ID:		Run ID: ECD_11_299671	SeqNo: 4191507		PrepDate: 02-Aug-2017		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	7.082	1.7	8.289	0	85.4	55 - 132				
gamma-Chlordane	7.713	1.7	8.289	0	93.1	60 - 129				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

QC BATCH REPORT

Batch ID: 118855		Instrument: ECD_11		Method: SW8081						
MS		Sample ID: HS17071540-02MS		Units: ug/Kg		Analysis Date: 07-Aug-2017 18:22				
Client ID: B-7 (6-7')		Run ID: ECD_11_299671		SeqNo: 4191080		PrepDate: 02-Aug-2017		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
4,4'-DDD	14.83	3.3	16.62	0	89.2	53 - 138				
4,4'-DDE	17.35	3.3	16.62	0	104	57 - 136				
4,4'-DDT	16.37	3.3	16.62	0	98.5	53 - 139				
Aldrin	6.746	1.7	8.311	0	81.2	52 - 130				
alpha-BHC	5.192	1.7	8.311	0	62.5	52 - 130				
beta-BHC	7.413	1.7	8.311	0	89.2	62 - 130				
delta-BHC	3.682	1.7	8.311	0	44.3	41 - 137			P	
Dieldrin	24.62	3.3	16.62	4.454	121	54 - 138				
Endosulfan I	7.64	1.7	8.311	0	91.9	55 - 132				
Endosulfan II	17.1	3.3	16.62	0	103	59 - 134				
Endosulfan sulfate	13.41	3.3	16.62	0	80.7	54 - 141				
Endrin	16.3	3.3	16.62	0	98.1	60 - 157				
Endrin aldehyde	15.22	3.3	16.62	0	91.6	56 - 146				
Endrin ketone	17.92	3.3	16.62	0	108	56 - 153				
gamma-BHC	6.294	1.7	8.311	0	75.7	52 - 133				
Heptachlor	6.99	1.7	8.311	0	84.1	54 - 134			P	
Heptachlor epoxide	8.009	1.7	8.311	0	96.4	58 - 130				
Methoxychlor	82.87	17	83.08	0	99.8	60 - 140				
<i>Surr: Decachlorobiphenyl</i>	<i>6.814</i>	<i>0</i>	<i>6.649</i>	<i>0</i>	<i>102</i>	<i>59 - 144</i>				
<i>Surr: Tetrachloro-m-xylene</i>	<i>4.795</i>	<i>0</i>	<i>6.649</i>	<i>0</i>	<i>72.1</i>	<i>56.9 - 130</i>				

MS		Sample ID: HS17071540-02MS		Units: ug/Kg		Analysis Date: 07-Aug-2017 18:22			
Client ID: B-7 (6-7')		Run ID: ECD_11_299671		SeqNo: 4191509		PrepDate: 02-Aug-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
alpha-Chlordane	7.832	1.7	8.311	0	94.2	55 - 132			
gamma-Chlordane	8.8	1.7	8.311	0	106	60 - 129			

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

QC BATCH REPORT

Batch ID: 118855		Instrument: ECD_11		Method: SW8081						
MSD		Sample ID: HS17071540-02MSD		Units: ug/Kg		Analysis Date: 07-Aug-2017 18:44				
Client ID: B-7 (6-7')		Run ID: ECD_11_299671		SeqNo: 4191081		PrepDate: 02-Aug-2017		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	15.89	3.3	16.59	0	95.8	53 - 138	14.83	6.86	30	
4,4'-DDE	18.87	3.3	16.59	0	114	57 - 136	17.35	8.37	30	
4,4'-DDT	17.16	3.3	16.59	0	103	53 - 139	16.37	4.74	30	
Aldrin	7.63	1.7	8.295	0	92.0	52 - 130	6.746	12.3	30	P
alpha-BHC	5.868	1.7	8.295	0	70.7	52 - 130	5.192	12.2	30	P
beta-BHC	8.399	1.7	8.295	0	101	62 - 130	7.413	12.5	30	P
delta-BHC	4.247	1.7	8.295	0	51.2	41 - 137	3.682	14.3	30	P
Dieldrin	26.93	3.3	16.59	4.454	135	54 - 138	24.62	8.97	30	
Endosulfan I	8.338	1.7	8.295	0	101	55 - 132	7.64	8.74	30	
Endosulfan II	18.03	3.3	16.59	0	109	59 - 134	17.1	5.27	30	
Endosulfan sulfate	14.35	3.3	16.59	0	86.5	54 - 141	13.41	6.78	30	
Endrin	17.77	3.3	16.59	0	107	60 - 157	16.3	8.63	30	
Endrin aldehyde	16.64	3.3	16.59	0	100	56 - 146	15.22	8.89	30	
Endrin ketone	19.23	3.3	16.59	0	116	56 - 153	17.92	7.02	30	
gamma-BHC	7.035	1.7	8.295	0	84.8	52 - 133	6.294	11.1	30	P
Heptachlor	7.779	1.7	8.295	0	93.8	54 - 134	6.99	10.7	30	P
Heptachlor epoxide	8.915	1.7	8.295	0	107	58 - 130	8.009	10.7	30	
Methoxychlor	87.98	17	82.91	0	106	60 - 140	82.87	5.98	30	
Surr: Decachlorobiphenyl	7.305	0	6.636	0	110	59 - 144	6.814	6.95	30	
Surr: Tetrachloro-m-xylene	5.273	0	6.636	0	79.5	56.9 - 130	4.795	9.51	30	

MSD		Sample ID: HS17071540-02MSD		Units: ug/Kg		Analysis Date: 07-Aug-2017 18:44				
Client ID: B-7 (6-7')		Run ID: ECD_11_299671		SeqNo: 4191510		PrepDate: 02-Aug-2017		DF: 1		
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	8.54	1.7	8.294	0	103	55 - 132	7.832	8.65	30	
gamma-Chlordane	9.653	1.7	8.294	0	116	60 - 129	8.8	9.24	30	

The following samples were analyzed in this batch: HS17071540-02 HS17071540-04 HS17071540-07 HS17071540-08
 HS17071540-11

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

QC BATCH REPORT

Batch ID: R299316	Instrument: Balance1	Method: SW3550
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DUP	Sample ID: HS17071540-11DUP	Units: wt%	Analysis Date: 01-Aug-2017 11:40							
Client ID: B-9 (5-6')	Run ID: Balance1_299316	SeqNo: 4183790	PrepDate: DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Percent Moisture	16.8	0.0100	15.3	9.35	20
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The following samples were analyzed in this batch:	HS17071540-02	HS17071540-04	HS17071540-07	HS17071540-08
	HS17071540-11			

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
WorkOrder: HS17071540

**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/Kg-dry	Milligrams per Kilogram- Dry weight corrected

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Carolina	624-2017	31-Dec-2017
North Dakota	R193 2017-2017	30-Apr-2018
Oklahoma	2016-122	31-Aug-2017
Texas	T104704231-17-18	30-Apr-2018

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn 1483.003.005
Work Order: HS17071540

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS17071540-02	B-7 (6-7')	Login	7/29/2017 2:07:33 PM	BAF	SPA043
HS17071540-04	MW-5 (4-5')	Login	7/29/2017 2:07:33 PM	BAF	SPA043
HS17071540-07	B-8 (2.5-3')	Login	7/29/2017 2:07:34 PM	BAF	SPA043
HS17071540-08	B-10 (5-6')	Login	7/29/2017 2:07:34 PM	BAF	SPA043
HS17071540-11	B-9 (5-6')	Login	7/29/2017 2:07:35 PM	BAF	SPA043

Sample Receipt Checklist

Client Name: WM_PLANO_AP
 Work Order: HS17071540

Date/Time Received: **28-Jul-2017 17:35**
 Received by: **JRM**

Checklist completed by: Jared R. Makan 29-Jul-2017
 eSignature Date

Reviewed by: Bernadette A. Fini 31-Jul-2017
 eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

- 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):	1.8c/2.3c UC/C	IR15
Cooler(s)/Kit(s):	23830	
Date/Time sample(s) sent to storage:	07/29/2017 14:30	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/> No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<div style="border: 1px solid black; height: 20px;"></div>	

Login Notes: Sample container for MW-5 (4-5') received broken, sample transferred to new container at Login. 07/29/2017 @ 11:10am.

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 1311
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 2
COC ID: 26768

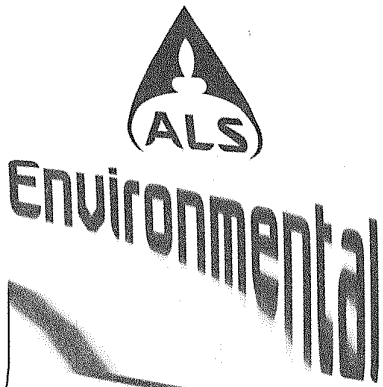
Houston, TX
+1 281 511 1111
Middletown, OH
+1 717 944 1111
Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700
South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Environmental

Customer Information		ALS Project Manager:		Parameter/Method Request for Analysis													
Purchase Order		Project Name	ALS Work Order #:	Parameter/Method Request for Analysis													
Work Order		Project Number		A	B	C	D	E	F	G	H	I	J	Hold			
Company Name	W&M Environmental	Bill To Company	Same	OCPs													
Send Report To	Clay Snider	Invoice Attn	Accounts Payable														
Address	906 E. 18th St. Suite 100	Address	Same	HS17071540													
City/State/Zip	Plano, TX 75074	City/State/Zip		W&M Environmental Group, Inc. 1714 Vaughn 1483.003.005													
Phone	(972) 516-0300	Phone															
Fax		Fax															
e-Mail Address	csnide@wbl-w.com	e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	B-7 (5-6')	7/28/17	0950	SL	No	1	X										
2	B-7 (6-7')	7/28/17	0955	SL	No	1											
3	B-7 (9-10')	7/28/17	1000	SL	No	1											
4	MW-5 (4-5')	7/28/17	1020	SL	No	1	X										
5	MW-5 (6-7')	7/28/17	1030	SL	No	1											
6	MW-5 (9-10')	7/28/17	1035	SL	No	1											
7	B-8 (2.5-3')	7/28/17	1320	SL	No	1	X										
8	B-10 (6-6')	7/28/17	1355	SL	No	1	X										
9	B-10 (6-7')	7/28/17	1400	SL	No	1											
10	B-10 (9-10')	7/28/17	1405	SL	No	1											
Sampler(s) Please Print & Sign <i>TREY NELSON</i>		Shipment Method		Required Turnaround Time: (Check Box) <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour <input checked="" type="checkbox"/> Other													
Relinquished by: <i>TREY NELSON</i>		Received by: <i>S. JAHANN</i>		Notes: <i>JARR Respective / LRC</i> Cooler ID: <i>23830</i> Cooler Temp: <i>1.8</i> Level I Std OC: <input type="checkbox"/> Level II Std OC: <input type="checkbox"/> Level III Std OC/Raw Date: <input type="checkbox"/> TRAP Checklist: <input type="checkbox"/> Level IV SW/64/CLP: <input type="checkbox"/> Level IV SW/64/CLP: <input type="checkbox"/> Other: <i>CFS</i>													
Dismissed by: <i>[Signature]</i>		Checked by (Laboratory): <i>S. JAHANN</i>		Results Due Date: Required Turnaround Time: <i>7/29/17 08:50</i> 8-4°C 9-5035													
Logged by (Laboratory): <i>[Signature]</i>		Time:		Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other: 8-4°C 9-5035													

Note: 1. Any changes must be made in writing on 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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Cincinnati, OH
+1 513 733 5336
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+1 425 356 2600

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

Chain of Custody Form

Page 2 of 2

COC ID: 26770

Hour

+1

MI



610 948 4903
2015.07.26 07:27:00

South Charleston, WV
+1 204 288 5700
+1 717 505 5280

Customer Information

ALS Project Manager:

ALS Work Order #:

Project Information

Parameter/Method Request for Analysis

Purchase Order
Work Order
Company Name: W&M Environmental
Send Report To: Clay Snider
Address: 906 E. 18th St. Suite 100
City/State/Zip: Plano, TX 75074
Phone: (972) 516-2300
Fax
e-Mail Address: csnider@wh-m.com

Project Name: 1714 Vaughn
Project Number: 1483.003.005
Bill To Company: Same
Invoice Attn: Accounts Payable
Address: Same
City/State/Zip
Phone
Fax
e-Mail Address

A
B
C
D
E
F
G
H
I
J

OCPS

HS17071540
W&M Environmental Group, Inc.
1714 Vaughn 1483.003.005

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	B-9 (5-6')	7/28/17	1420	SL	No	1	X										
2	B-9 (6-7')	7/28/17	1425	SL	No	1											
3	B-9 (9-10')	7/28/17	1430	SL	No	1											
4	DUP-01	7/28/17	—	SL	No	1											
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: **TREY NELSON**

Inquished by: **[Signature]**


Shipment Method

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

Date: 7/28/17 Time: 12:22

Received by: **[Signature]**

Results Due Date:

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 7/29/17	Time: 1945	SM
	Name: J. W. [unclear]	Company: ALS	Date: 07/29/17

23830 JUL 29 2017

RMA: 	FedEx Express
	
FedEx	SATURDAY 12:00P
TRK# 6786 7206 0071	PRIORITY OVERNIGHT
XO SGRA 23830	77099
	TX-US IAH
	



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

November 01, 2017

Michael Henn
W&M Environmental Group, Inc.
906 E. 18th Street (STE 100)
Plano, TX 75074

Work Order: **HS17101308**

Laboratory Results for: **1714 Vaughn Blvd**

Dear Michael,

ALS Environmental received 1 sample(s) on Oct 24, 2017 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: Dayna.Fisher
Bernadette A. Fini
Project Manager

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

**TRRP Laboratory Data
Package Cover Page**

This data package consists of all or some of the following as applicable:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits.
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.
The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

**TRRP Laboratory Data
Package Cover Page**

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory have been identified by the laboratory in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [NA] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or _____ on (enter date of last inspection). Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.



Bernadette A. Fini
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ALS Laboratory Group			LRC Date: 10/31/2017				
Project Name: 1714 Vaughn Blvd			Laboratory Job Number: HS17101308				
Reviewer Name: Bernadette Fini			Prep Batch Number(s): 121553				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW-846 Method 5035?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSd, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSd RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?		X			1
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL and minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data							
Laboratory Name: ALS Laboratory Group				LRC Date: 10/31/2017			
Project Name: 1714 Vaughn Blvd				Laboratory Job Number: HS17101308			
Reviewer Name: Bernadette Fini				Prep Batch Number(s) 121553			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB)					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable);

NA = Not Applicable;

NR = Not Reviewed;

R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Data

Laboratory Name: ALS Laboratory Group		LRC Date: 10/31/2017
Project Name: 1714 Vaughn Blvd		Laboratory Job Number: HS17101308
Reviewer Name: Bernadette Fini		Prep Batch Number(s): 121553
ER# ⁵	Description	
1	Batch 121553, Organochlorine Pesticides Method SW8081, LCS/LCSD were analyzed and reported in lieu of an MS/MSD for this batch. The batch quality control criteria were met.	
<p>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. O = Organic Analyses; I = Inorganic Analyses (and general chemistry, when applicable); NA = Not Applicable; NR = Not Reviewed; R# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>		

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
Work Order: HS17101308

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS17101308-01	MW-5	Groundwater		24-Oct-2017 11:40	24-Oct-2017 16:25	<input type="checkbox"/>

Client: W&M Environmental Group, Inc.
 Project: 1714 Vaughn Blvd
 Sample ID: MW-5
 Collection Date: 24-Oct-2017 11:40

ANALYTICAL REPORT
 WorkOrder:HS17101308
 Lab ID:HS17101308-01
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ORGANOCHLORINE PESTICIDES BY SW8081B			Method:SW8081		Prep:SW3510C/3665A / 30-Oct-2017		Analyst: STH
4,4'-DDD	U		0.0080	0.10	ug/L	1	31-Oct-2017 16:31
4,4'-DDE	U		0.0040	0.10	ug/L	1	31-Oct-2017 16:31
4,4'-DDT	0.013	J	0.0070	0.10	ug/L	1	31-Oct-2017 16:31
Aldrin	U		0.010	0.050	ug/L	1	31-Oct-2017 16:31
alpha-BHC	U		0.010	0.050	ug/L	1	31-Oct-2017 16:31
beta-BHC	U		0.010	0.050	ug/L	1	31-Oct-2017 16:31
Chlordane	U		0.10	0.50	ug/L	1	31-Oct-2017 16:31
delta-BHC	U		0.010	0.050	ug/L	1	31-Oct-2017 16:31
Dieldrin	0.66		0.010	0.10	ug/L	1	31-Oct-2017 16:31
Endosulfan I	0.022	J	0.010	0.050	ug/L	1	31-Oct-2017 16:31
Endosulfan II	U		0.020	0.10	ug/L	1	31-Oct-2017 16:31
Endosulfan sulfate	U		0.030	0.10	ug/L	1	31-Oct-2017 16:31
Endrin	U		0.030	0.10	ug/L	1	31-Oct-2017 16:31
Endrin aldehyde	U		0.030	0.10	ug/L	1	31-Oct-2017 16:31
Endrin ketone	U		0.030	0.10	ug/L	1	31-Oct-2017 16:31
gamma-BHC	U		0.010	0.050	ug/L	1	31-Oct-2017 16:31
Heptachlor	U		0.010	0.050	ug/L	1	31-Oct-2017 16:31
Heptachlor epoxide	0.10		0.010	0.050	ug/L	1	31-Oct-2017 16:31
Methoxychlor	U		0.15	0.50	ug/L	1	31-Oct-2017 16:31
Toxaphene	U		0.19	0.50	ug/L	1	31-Oct-2017 16:31
<i>Surr: Decachlorobiphenyl</i>	95.5			54.9-145	%REC	1	31-Oct-2017 16:31
<i>Surr: Tetrachloro-m-xylene</i>	105			51.5-142	%REC	1	31-Oct-2017 16:31
MISCELLANEOUS PESTICIDES BY SW8081B			Method:SW8081		Prep:SW3510C/3665A / 30-Oct-2017		Analyst: STH
alpha-Chlordane	0.040	J	0.020	0.050	ug/L	1	31-Oct-2017 16:31
gamma-Chlordane	0.049	J	0.020	0.050	ug/L	1	31-Oct-2017 16:31

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

WEIGHT LOG

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

Batch ID: 121553 **Method:** MISCELLANEOUS PESTICIDES BY SW8081B **Prep:** 3510_P

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS17101308-01	1	1000	10 (mL)	0.01
HS17101308-01	1	1000	10 (mL)	0.01

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 121553	Test Name : MISCELLANEOUS PESTICIDES BY SW8081B			Matrix: Groundwater		
HS17101308-01	MW-5	24 Oct 2017 11:40		30 Oct 2017 09:39	31 Oct 2017 16:31	1
HS17101308-01	MW-5	24 Oct 2017 11:40		30 Oct 2017 09:39	31 Oct 2017 16:31	1

WorkOrder: HS17101308
 InstrumentID: ECD_11
 Test Code: 8081_W
 Test Number: SW8081
 Test Name: Organochlorine Pesticides by

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous

Units: µg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	4,4'-DDD	72-54-8	0.025	0.026	0.0080	0.10
A	4,4'-DDE	72-55-9	0.025	0.027	0.0040	0.10
A	4,4'-DDT	50-29-3	0.025	0.032	0.0070	0.10
A	Aldrin	309-00-2	0.012	0.014	0.010	0.050
A	alpha-BHC	319-84-6	0.012	0.012	0.010	0.050
A	beta-BHC	319-85-7	0.025	0.015	0.010	0.050
A	Chlordane	57-74-9	0.25	0.081	0.10	0.50
A	delta-BHC	319-86-8	0.012	0.011	0.010	0.050
A	Dieldrin	60-57-1	0.012	0.027	0.010	0.10
A	Endosulfan I	959-98-8	0.025	0.015	0.010	0.050
A	Endosulfan II	33213-65-9	0.012	0.029	0.020	0.10
A	Endosulfan sulfate	1031-07-8	0.025	0.028	0.030	0.10
A	Endrin	72-20-8	0.025	0.026	0.030	0.10
A	Endrin aldehyde	7421-93-4	0.025	0.029	0.030	0.10
A	Endrin ketone	53494-70-5	0.025	0.029	0.030	0.10
A	gamma-BHC	58-89-9	0.025	0.013	0.010	0.050
A	Heptachlor	76-44-8	0.012	0.015	0.010	0.050
A	Heptachlor epoxide	1024-57-3	0.012	0.014	0.010	0.050
A	Methoxychlor	72-43-5	0.25	0.15	0.15	0.50
A	Toxaphene	8001-35-2	0	0	0.19	0.50
S	Decachlorobiphenyl	2051-24-3	0	0	0	0
S	Tetrachloro-m-xylene	877-09-8	0	0	0	0

WorkOrder: HS17101308
 InstrumentID: ECD_11
 Test Code: 8081-MISC_W
 Test Number: SW8081
 Test Name: Miscellaneous Pesticides by

**METHOD DETECTION /
 REPORTING LIMITS**

Matrix: Aqueous **Units:** µg/L

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	alpha-Chlordane	5103-71-9	0.012	0.015	0.020	0.050
A	gamma-Chlordane	5103-74-2	0.012	0.018	0.020	0.050

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

QC BATCH REPORT

Batch ID: 121553	Instrument: ECD_11	Method: SW8081								
MBLK	Sample ID: MBLK-121553	Units: ug/L	Analysis Date: 31-Oct-2017 15:56							
Client ID:	Run ID: ECD_11_304556	SeqNo: 4288884	PrepDate: 30-Oct-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

4,4'-DDD	U	0.10								
4,4'-DDE	U	0.10								
4,4'-DDT	U	0.10								
Aldrin	U	0.050								
alpha-BHC	U	0.050								
beta-BHC	U	0.050								
Chlordane	U	0.50								
delta-BHC	U	0.050								
Dieldrin	U	0.10								
Endosulfan I	U	0.050								
Endosulfan II	U	0.10								
Endosulfan sulfate	U	0.10								
Endrin	U	0.10								
Endrin aldehyde	U	0.10								
Endrin ketone	U	0.10								
gamma-BHC	U	0.050								
Heptachlor	U	0.050								
Heptachlor epoxide	U	0.050								
Methoxychlor	U	0.50								
Toxaphene	U	0.50								
<i>Surr: Decachlorobiphenyl</i>	<i>0.2009</i>	<i>0</i>	<i>0.2</i>	<i>0</i>	<i>100</i>	<i>54.9 - 145</i>				
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1742</i>	<i>0</i>	<i>0.2</i>	<i>0</i>	<i>87.1</i>	<i>51.5 - 142</i>				

MBLK	Sample ID: MBLK-121553	Units: ug/L	Analysis Date: 31-Oct-2017 15:56							
Client ID:	Run ID: ECD_11_304556	SeqNo: 4288897	PrepDate: 30-Oct-2017 DF: 1							
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	U	0.050								
gamma-Chlordane	U	0.050								

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

QC BATCH REPORT

Batch ID: 121553	Instrument: ECD_11	Method: SW8081
-------------------------	---------------------------	-----------------------

LCS		Sample ID: LCS-121553	Units: ug/L			Analysis Date: 31-Oct-2017 16:13				
Client ID:		Run ID: ECD_11_304556	SeqNo: 4288885		PrepDate: 30-Oct-2017		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	0.5502	0.10	0.5	0	110	53 - 144				
4,4'-DDE	0.5454	0.10	0.5	0	109	55 - 144				
4,4'-DDT	0.5733	0.10	0.5	0	115	53 - 149				
Aldrin	0.2715	0.050	0.25	0	109	47 - 141				
alpha-BHC	0.2599	0.050	0.25	0	104	51 - 141				
beta-BHC	0.2511	0.050	0.25	0	100	58 - 144				
delta-BHC	0.1234	0.050	0.25	0	49.4	48 - 146				
Dieldrin	0.5419	0.10	0.5	0	108	56 - 144				
Endosulfan I	0.2636	0.050	0.25	0	105	55 - 141				
Endosulfan II	0.5371	0.10	0.5	0	107	57 - 144				
Endosulfan sulfate	0.4969	0.10	0.5	0	99.4	58 - 145				
Endrin	0.5974	0.10	0.5	0	119	60 - 163				
Endrin aldehyde	0.5351	0.10	0.5	0	107	59 - 158				
Endrin ketone	0.532	0.10	0.5	0	106	59 - 154				
gamma-BHC	0.2624	0.050	0.25	0	105	53 - 142				
Heptachlor	0.2869	0.050	0.25	0	115	51 - 144				
Heptachlor epoxide	0.2744	0.050	0.25	0	110	55 - 142				
Methoxychlor	2.812	0.50	2.5	0	112	59 - 150				
Surr: Decachlorobiphenyl	0.2176	0	0.2	0	109	54.9 - 145				
Surr: Tetrachloro-m-xylene	0.1848	0	0.2	0	92.4	51.5 - 142				

LCS		Sample ID: LCS-121553	Units: ug/L			Analysis Date: 31-Oct-2017 16:13				
Client ID:		Run ID: ECD_11_304556	SeqNo: 4288898		PrepDate: 30-Oct-2017		DF: 1			
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	0.2726	0.050	0.25	0	109	55 - 141				
gamma-Chlordane	0.2699	0.050	0.25	0	108	55 - 137				

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

QC BATCH REPORT

Batch ID: 121553 **Instrument:** ECD_11 **Method:** SW8081

LCSD		Sample ID: LCSD-121553			Units: ug/L		Analysis Date: 31-Oct-2017 16:49			
Client ID:		Run ID: ECD_11_304556			SeqNo: 4288896		PrepDate: 30-Oct-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	0.5484	0.10	0.5	0	110	53 - 144	0.5502	0.328	20	
4,4'-DDE	0.5452	0.10	0.5	0	109	55 - 144	0.5454	0.0495	20	
4,4'-DDT	0.5733	0.10	0.5	0	115	53 - 149	0.5733	0.00698	20	
Aldrin	0.2712	0.050	0.25	0	108	47 - 141	0.2715	0.103	20	
alpha-BHC	0.2613	0.050	0.25	0	105	51 - 141	0.2599	0.564	20	
beta-BHC	0.2501	0.050	0.25	0	100	58 - 144	0.2511	0.383	20	
delta-BHC	0.1233	0.050	0.25	0	49.3	48 - 146	0.1234	0.0486	20	
Dieldrin	0.5401	0.10	0.5	0	108	56 - 144	0.5419	0.331	20	
Endosulfan I	0.2713	0.050	0.25	0	109	55 - 141	0.2636	2.87	20	
Endosulfan II	0.5351	0.10	0.5	0	107	57 - 144	0.5371	0.377	20	
Endosulfan sulfate	0.4978	0.10	0.5	0	99.6	58 - 145	0.4969	0.177	20	
Endrin	0.5935	0.10	0.5	0	119	60 - 163	0.5974	0.662	20	
Endrin aldehyde	0.5351	0.10	0.5	0	107	59 - 158	0.5351	0.00748	20	
Endrin ketone	0.5299	0.10	0.5	0	106	59 - 154	0.532	0.407	20	
gamma-BHC	0.2634	0.050	0.25	0	105	53 - 142	0.2624	0.38	20	
Heptachlor	0.2866	0.050	0.25	0	115	51 - 144	0.2869	0.105	20	
Heptachlor epoxide	0.274	0.050	0.25	0	110	55 - 142	0.2744	0.175	20	
Methoxychlor	2.754	0.50	2.5	0	110	59 - 150	2.812	2.07	20	
Surr: Decachlorobiphenyl	0.2143	0	0.2	0	107	54.9 - 145	0.2176	1.54	20	
Surr: Tetrachloro-m-xylene	0.1947	0	0.2	0	97.3	51.5 - 142	0.1848	5.18	20	

LCSD		Sample ID: LCSD-121553			Units: ug/L		Analysis Date: 31-Oct-2017 16:49			
Client ID:		Run ID: ECD_11_304556			SeqNo: 4288900		PrepDate: 30-Oct-2017		DF: 1	
Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
alpha-Chlordane	0.2733	0.050	0.25	0	109	55 - 141	0.2726	0.264	20	
gamma-Chlordane	0.2719	0.050	0.25	0	109	55 - 137	0.2699	0.749	20	

The following samples were analyzed in this batch: HS17101308-01

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

Client: W&M Environmental Group, Inc.
Project: 1714 Vaughn Blvd
WorkOrder: HS17101308

**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

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	17-027-0	27-Mar-2018
California	2919 2016-2018	31-Jul-2018
Illinois	004112	09-May-2018
Kentucky	123043	30-Apr-2018
Louisiana	03087 2017-2017	30-Jun-2018
North Carolina	624-2017	31-Dec-2017
North Dakota	R193 2017-2017	30-Apr-2018
Oklahoma	2017-088	31-Aug-2018
Texas	T104704231-17-19	30-Apr-2018

Sample Receipt Checklist

Client Name: WM_PLANO_AP
 Work Order: HS17101308

Date/Time Received: **24-Oct-2017 16:25**
 Received by: **JRM**

Checklist completed by: Cesar A. Lira 25-Oct-2017
 eSignature Date

Reviewed by: Bernadette A. Fini 25-Oct-2017
 eSignature Date

Matrices: **Water**

Carrier name: **FedEx**

- 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): 2.8c/2.0c uc/c IR15

Cooler(s)/Kit(s): S. Red

Date/Time sample(s) sent to storage: 10/25/2017 12:00

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:



Environmental

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 Form

Page 1 of 1

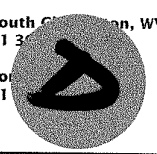
COC ID: 140347

Houston, TX
+1 281 530 5656


Middletown, PA
+1 717 944 5541

**SHORT
HOLDING
TIME**

South Charleston, WV
+1 304 742 1111



ALS Project Manager: _____ ALS Work Order: _____

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	1714 Vaughn Blvd.	A	OCPs											
Work Order		Project Number	1483.003.005	B												
Company Name	W&M Environmental	Bill To Company	Same	C												
Send Report To	Michael Henn	Invoice Attn	Accounts Payable	D												
Address	906 E. 13th Street Suite 100	Address	Same	E	<p>HS17101308</p> <p>W&M Environmental Group, Inc. 1714 Vaughn Blvd</p> 											
				F												
City/State/Zip	Plano, TX 75074	City/State/Zip		G												
Phone	(972) 516-0300	Phone		H												
Fax		Fax		I												
e-Mail Address	mhenn@wh-m.com	e-Mail Address		J												


No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-5	10/24/17	1140	GW	None	1	X										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>TREY NELSON</i>		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:					
				<input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour									
Relinquished by:	Date: 10/25/17	Time: 10/24/17	Received by:	Notes: TRRP Reporting; LRC									
Relinquished by:	Date: 10/24/17	Time: 1730	Received by (Laboratory):	Cooler ID	Cooler Temp	QC Package: (Check One Box Below)							
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	2 Red	28	<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other							
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035												OR-08	

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.

Copyright 2012 by ALS Environmental.

S. Reed

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Initial Broken By: <i>CR</i> Date: <i>10.25</i>	
	Date: <i>10-24-77</i>	Time: <i>17:45</i>		
	Name: <i>J. W. Reed</i>	Company: <i>ALS</i>		

FedEx
TRK# 7376 9747 3734
0221

WED - 25 OCT 10:30
PRIORITY OVERNIGHT

AB SGRA

7709
TX-US IAI



APPENDIX 10

DATA USABILITY SUMMARY

***GARAGE ASSESSMENT
1714 Vaughn Boulevard
Fort Worth, Texas
VCP No. 2768***

DATA USABILITY SUMMARY

W&M Environmental Group, LLC (W&M) reviewed the analytical data packages completed by ALS Environmental (ALS) for the analysis of soil and groundwater samples collected by W&M at 1714 Vaughn Boulevard in Fort Worth, Tarrant County, Texas (Site). Data were reviewed for conformance to the requirements of the Texas Commission on Environmental Quality (TCEQ) guidance document entitled *Review and Reported of COC Concentration Data* (RG-366/TRRP-13).

INTENDED USE OF DATA

To provide current data on concentrations of chemicals of concern (COC) in the soil and groundwater at the Site. Laboratory reports included in the Data Usability Summary (DUS) report include samples collected between May 2017 and October 2017.

Analyses requested included:

- SW-846 U.S. Environmental Protection Agency (EPA) 8260 – Volatile organic compounds (VOCs) by gas chromatography/mass spectrometry (GC/MS)
- SW-846 EPA 8081 – Organochlorine Pesticides (OCPs) by GC
- TX-1005 – Total Petroleum Hydrocarbons (TPH) by GC
- EPA 2540G – Total Solids/Dry Weight

Data were reviewed and validated as described in the RG-366/TRRP-13 guidance document and the results of the review/validation are discussed in this DUS. The following laboratory submittals and field data were examined:

- Reportable Data
- Laboratory review checklists and associated exception reports (when available)
- Field notes with respect to field instrument calibrations, sampling procedures, and preservation procedures prior to shipping the samples to the laboratory.

When available, the results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklists (LRCs) and in the case narratives on the data packages from ALS, all of which were included in this review. Exception Reports (ERs) were included with the LRCs from ALS when data outside the quality objectives was encountered. The LRCs and reportable data included in this review are included within this DUS.

INTRODUCTION

A summary of the sample delivery groups (SDGs) reviewed is below:

Soil Samples:

- SDG HS17050141: Four (4) soil samples were collected by W&M. Select samples were analyzed for dry weight, VOCs, TPH, and OCPs by ALS.
- SDG HS17071540: Thirteen (13) soil samples and one duplicate sample were collected by W&M. Select samples were analyzed for dry weight and OCPs by ALS. The duplicate sample was not analyzed.

Groundwater Samples:

- SDG HS17101308: One (1) groundwater sample was collected by W&M and analyzed for OCPs by ALS.

PROJECT OBJECTIVES

Organic Compounds

- Recovery 60-140%
- Relative Percent Difference (RPD) 40%

Inorganic Compounds (dry weight)

- Recovery 70-130%
- RPD 30%

DATA REVIEW / VALIDATION RESULTS

Analytical Results

Non-detected results are reported as less than the value of the sample detection limit (SDL) by ALS as defined by the TCEQ TRRP rule. Soil analytical results are reported corrected for moisture content.

Exception reports were prepared by ALS for the following sample delivery groups:

- Soil Samples - HS17050141 and HS17071540
- Groundwater Samples – HS17101308

ALS assigned data qualifiers to results or QC data based on the criteria below, when applicable:

- * - 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

Data qualifiers are intended to provide the laboratory client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as “R” (Rejected).

Preservation and Holding Times

Samples were evaluated for agreement with the chain-of-custody (COC). All samples were received in the appropriate containers and in good condition with the exception of SDG HS17071540. The sample container for MW-5 (4-5') was broken when received by the laboratory and transferred to a new container by the laboratory at login. Sample receipt temperatures, where required, were within the acceptance criteria of 4 degrees Centigrade (°C) ± 2 °C. Where chemical sample preservation was required, pre-preserved containers from the laboratories were utilized. Samples were analyzed within holding times specified in SW-846 Table 2-36.

Calibrations

According to the LRCs, initial calibration and continuing calibration data met SW-846 method requirements for all analyses. The LRCs also document satisfactory instrument performance calibrations (ICPMS/GCMS) for all analyses.

Blanks

According to the LRCs, appropriate types of blanks were analyzed at an appropriate frequency. Method blanks were taken throughout the entire analytical process, including preparation and, if applicable, cleanup. All blank concentrations were below method quantitation limits (MQLs).

No trip blank, field blanks, or equipment blanks were collected during the investigation.

Internal Standard and Surrogate Recoveries

According to the LRCs and QC review, the internal standard and surrogate recoveries were within QC acceptance criteria for all compounds; however, exception reports were prepared for the following:

- HS17050141: Due to sample matrix interferences, the surrogate recovery was outside of the established control limits for OCPs in sample B-5 (5-6').

- HS17071540: Results are P qualified for alpha-Chlordane and/or Endrin ketone in samples MW-5 (4-5'), B-10 (5-6'), B-9 (5-6'). This indicates possible coelution or matrix interference on the confirming column.

Laboratory Control Samples

Recoveries in the laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were within recovery limits for all compounds from each of the SDGs except those noted below.

Exception reports were generated for the following:

- HS17050141: The multi-response compounds; Toxaphene and Chlordane were not included in the spiking solution for the LCS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicates (MS/MSD) precision and accuracy results were within laboratory QC acceptance criteria for all compounds from the SDGs; however, exception reports were prepared for the following:

- HS17050141: The multi-response compounds; Toxaphene and Chlordane were not included in the spiking solution for the MS and MSD in sample B-5 (3-4').
- HS17050141: MS and/or MSD recovered outside the control limits for multiple compounds due to possible matrix interference in sample B-5 (3-4').
- HS17050141: MS and MSD were performed on unrelated sample.
- HS17050141: MS/MSD RPD recovered above the RPD limits for 4,4'-DDD and Endosulfan sulfate.
- HS17101308: Batch 121553, Organochlorine Pesticides Method SW8081, LCS/LCSD were analyzed and reported in lieu of an MS/MSD for this batch. The batch quality control criteria were met.

Field Precision

One duplicate soil sample was collected as part of the additional assessment but was not analyzed. A duplicated groundwater sample was not collected from monitoring well MW-5 due to the low volume of water present in the well casing and slow recharge rate.

Field Procedures

Samples were collected using documented Standard Operating Procedures (SOPs).

Summary

Exception reports were prepared for select SDGs. However, no qualifiers were assigned to data as a result of the exception reports, and no data were rejected by the laboratory or during W&M's data review. The analytical data were determined to be usable for the purpose of determining current COC concentrations in soil and groundwater at the Site.

DRAFT

WASTE MANIFEST

ATTACHMENT D

Third party Y / N

ER FORM

CGE00235

Dispatch: 855•483•8181

O: 817•483•8181 | F: 817•483•5887

5255 Teague Rd., Fort Worth, TX 76140



JOB ID: 170956

TRUCK START TIME 10:00 AM / PM

TRUCK END TIME _____ AM / PM

TRUCK# 5

Confirmation samples Y / N

Samples pulled Y / N

TRANSPORTER		CUSTOMER/GENERATOR		RECEIVING FACILITY	
NAME	CG ENVIRONMENTAL, LLC.	NAME	Ward M Environmental	NAME	CG ENVIRONMENTAL- DFW
ADDRESS	5255 TEAGUE ROAD	ADDRESS	906 East 13th Street	ADDRESS	5255 TEAGUE ROAD
CITY/STATE/ZIP	FORT WORTH, TX 76140	CITY/STATE/ZIP	Plano, TX 75074	CITY/STATE/ZIP	FORT WORTH, TX 76140
PHONE	(855) 483-8181	PHONE		PHONE	(855) 483-8181
EPA ID	TXR000080051	EPA ID		EPA ID	TXR000080051
		PO#		SVC FRQ:	

DEL	PU	HAZ	PROPER SHIPPING DESCRIPTION	TANK SIZE/ CAPACITY	TANK #	# OF CONT.	CONT. TYPE	TOTAL QTY	UNIT OF MEASURE	LOC
			RINSE WATER (CIRCLE) DIESEL / USED OIL / GASOLINE / HYDRAULIC OIL / ANTIFREEZE RINSE WATER OTHER (DESCRIBE) _____							
			ABSORBENT- (CIRCLE) DIESEL / USED OIL / GASOLINE / HYDRAULIC OIL / ANTIFREEZE							
			SOIL- (CIRCLE) DIESEL / USED OIL / GASOLINE / HYDRAULIC OIL / ANTIFREEZE							
			ABSORBENT / SOIL- (CIRCLE) DIESEL / USED OIL / GASOLINE / HYDRAULIC OIL / ANTIFREEZE							
			ABSORBENT / OTHER (DESCRIBE) _____							
			SOIL / OTHER (DESCRIBE) _____							
			ABSORBENT / SOIL OTHER (DESCRIBE) _____							
			BIO BOX (CONTENTS) _____							
			BIO DRUMS (CONTENTS) _____							
	✓		Insecticide					30	gal	
	✓		Used Motor oil					30	gal	

GENERATOR SIGN BELOW, This is to certify that the above-named materials/substances are properly classified, described, containerized, marked and labeled in addition to being in proper condition for transportation according to the applicable city and or state requirements and regulations as they pertain to the Department of Transportation. Any discrepancies not communicated may result in additional costs and or violations.

GENERATOR PRINT NAME	TRANSPORTER PRINT NAME	RECEIVER PRINT NAME
Troy Nelson	Brandon Young	
GENERATOR SIGNATURE	TRANSPORTER SIGNATURE	RECEIVER SIGNATURE
<i>[Signature]</i>	<i>[Signature]</i>	
DATE OF SERVICE	DATE OF SERVICE	DATE OF SERVICE
5/2/17	5-2-17	
LEFT ON SITE		Y / N

White Copy – Receiver Yellow Copy – Generator 2nd Pink Copy – Transporter Green Copy – Generator 1st