Weston Solutions, Inc.
5599 San Felipe, Suite 700
Houston, Texas 77056
713-985-6600 • Fax 713-985-6703
www.westonsolutions.com

18 December 2017

Ms. Jacqueline Longoria
Planning & Design Manager
The Downtown Redevelopment Authority
909 Fannin, Suite 1650
Houston, Texas 77010

RE: Phase II Environmental Site Assessment
Portions of Block 333, Houston, Texas

Dear Ms. Longoria:

Weston Solutions, Inc. (WESTON®) has prepared this letter report to provide the results of the Phase II Environmental Site Assessment (ESA) conducted on 11 October and 23 to 27 October 2017 at the above-referenced subject property in Houston, Texas. Field activities were performed to evaluate potential environmental conditions associated with historical and current property use.

This Phase II ESA Report describes the scope of work, investigation methods, results of sampling and laboratory analysis, and conclusions/recommendations from the ESA. Attachments follow the text and are listed below:

- Attachment A–Figures
- Attachment B–Geophysical Survey Report
- Attachment C–Field Notes, Boring Logs, and State Well Reports
- Attachment D–Tables
- Attachment E–Data Usability Summary and Analytical Data Packages
- Attachment F–Investigation-Derived Waste Data Package

BACKGROUND

WESTON completed a Phase I ESA for the subject property in September 2017. The Phase I ESA identified the following recognized environmental conditions (RECs) in connection with the subject property:

- The property was used as an auto repair facility and filling station as early as 1924 and as a cleaners from at least 1935 through 1944. Typical industry practices included the use of solvents, polychlorinated biphenyl (PCB) containing fluids in auto lifts, improper waste disposal, and underground storage tanks (USTs).

- The subject property is designated a closed leaking petroleum storage tank (LPST) facility by the Texas Commission on Environmental Quality (TCEQ), receiving case closure in May 1996.

- Numerous properties within the subject vicinity were listed within the regulatory databases as Environmental Data Resources (EDR) historical auto and cleaner facilities.

- Current use of the site as an auto repair facility (Goodyear). Numerous areas of staining were observed throughout the facility, and the presence of hazardous waste was noted.

SCOPE OF WORK

The Phase II ESA scope of work (SOW) included:

- Conducting a geophysical survey to assess the potential presence of USTs.

- Installing six shallow soil borings to collect soil samples from beneath the building to assess potential leaks of hydraulic oil or other chemicals of concern (COCs).

- Installing four monitor wells to determine the direction of groundwater flow and assess whether groundwater was affected by historical site use.

- Reviewing the laboratory analyses of soil and groundwater samples and preparing the Phase II ESA report.

The work was completed in accordance with WESTON's 27 September 2017 Phase II ESA proposal that was authorized by the Downtown Redevelopment Authority (DRA) on 28 September 2017.

A Site Location Map is included as Figure 1, and a Sample Location Map (that also presents the site layout) is included as Figure 2.

SITE VISIT AND GEOPHYSICAL SURVEY

Before beginning site work, WESTON prepared a site-specific Health and Safety Plan, complying with Occupational Safety and Health Administration (OSHA) requirements.

A site visit and geophysical survey were performed on 11 October 2017. The WESTON Project Manager and Geologist met the geophysical survey subcontractor, Earth Measurement Corporation (EMC) to assess site and subsurface conditions. The geophysical survey was completed to confirm the potential presence of USTs and identify locations of utilities and/or subsurface objects in the vicinity of planned soil boring and monitor well locations.

The geophysical survey utilized three instruments to assess the potential presence of buried objects.

1. Ground penetrating radar (GPR, detects changes in subsurface materials).

2. Electromagnetic magnetic meter (to detect ferrous materials).
3. Radio detection meter (to detect lines, pipes, and cables).

EMC established a grid across the property, except for the parking lot behind the Goodyear facility. The aforementioned three instruments were utilized within the gridded area. GPR was used in the parking lot behind the Goodyear facility, which was sufficient based on historical use of the property.

The soil boring and monitor well locations were cleared for subsequent completion, except for soil boring SB-5. This boring was located near a hydraulic lift in the northern building, and the presence of subsurface utilities and/or obstructions prevented relocation or completion of this boring. No evidence of USTs were identified during the survey.

The draft and final report and maps depicting the findings of the geophysical survey were provided to DRA on 9 November 2017 and 27 November 2017, respectively. The final report and map are included in Attachment B.

SOIL BORING COMPLETION/SAMPLE COLLECTION

WESTON's drilling subcontractor Envirotech Drilling Services (Envirotech) mobilized to the site on 23 October 2017 to complete on-site soil borings and monitor wells. Soil borings SB-1 to SB-3 (southern building) and SB-6 and SB-7 (northern building) were completed to determine whether or not soil has been affected from spills or leaks from the hydraulic lifts. Soil boring SB-4 was completed in the chemical storage area in the maintenance shop behind the southern building. In addition, the interior well, MW-1, was also completed along with the soil borings to determine if soil or groundwater was affected in the vicinity of the parts washer.

The six soil borings and one monitor well boring were advanced using a direct-push drilling rig. The soil borings were completed to a depth of 10 feet below ground surface (bgs) and the monitor well boring was completed to a depth of 44 feet bgs. Continuous soil cores were collected, and a WESTON geologist logged and classified the recovered soil cores and screened the soils (at 2-foot intervals) for the presence of organic vapors using a portable photoionization detector (PID). The subsurface lithology encountered consisted of clay and sandy clay.

Two soil samples were collected from each soil boring from intervals selected by the field geologist based on observations (staining, odors) and PID readings. If observations from a specific boring did not indicate the potential presence of hydrocarbons or other contaminants, soil samples were generally collected from the midpoint of the borings (3 to 5 feet bgs or 4 to 5 feet bgs) and from the termination depth of the boring (8 to 10 feet bgs or 9 to 10 feet bgs).

Only one boring contained measureable PID readings. The highest PID reading of 653 parts per million (ppm) was measured in boring SB-3 around 7 feet bgs; thus, a soil sample was collected from the 6- to 8-foot depth interval (in addition to one from 8 to 10 feet bgs).

One duplicate soil sample (DUP-1) was collected from the 8- to 10-foot depth interval from SB-7 for quality assurance/quality control (QA/QC) purposes.

The soil samples (including the duplicate sample) were packed on ice and delivered to A&B Laboratories (A&B) in Houston, Texas for analysis of total petroleum hydrocarbons (TPH) by TX-Method 1005, TPH by TX-Method 1006 (all samples initially placed on hold for this analysis), and volatile organic compounds (VOCs) by SW-846 Method 8260B (benzene, toluene, ethylbenzene and xylenes [BTEX]). The VOC samples from the chemical storage area (SB-4) and monitor well MW-1 were analyzed for the full suite of VOC constituents. Samples were also shipped to DHL Analytical (DHL) and placed on hold for analysis of polyaromatic hydrocarbons (PAHs) by SW-846 Method 8270 and polychlorinated biphenyls (PCBs) by SW-846 Method 8082A.

Based on the preliminary TPH 1005 data reported by A&B, analysis of PAHs or TPH TX-1006 was not required. However, one soil sample from each building was analyzed for PCBs. All samples were analyzed on a 5-day turn-around-time (TAT) basis.

Following collection of the soil samples, soil borings were plugged to the ground surface with hydrated bentonite chips and topped with concrete. The locations of the soil borings are shown on Figure 2. Field documentation of the soil boring completion and sampling activities as well as boring logs are included in Attachment C.

MONITOR WELL INSTALLATION

Envirotech mobilized a hollow-stem auger drilling rig to the site on 24 and 25 October 2017 to complete monitor wells MW-2 to MW-4. These wells were completed to evaluate whether groundwater is affected from the former waste oil underground storage tank (UST) and former fuel USTs. Well MW-2 was completed in the area of the former waste oil UST tankhold, and MW-4 was completed in area of the former fuel USTs. Well MW-3 was completed in the northern corner of the property to provide a downgradient or crossgradient evaluation of groundwater.

A WESTON geologist logged and classified the recovered soil cores and screened the soils (at 2-foot intervals) for the presence of organic vapors using a PID. The subsurface lithology encountered consisted of sandy clay and clay to depths ranging from 35 to 40 feet, which was underlain by 8 to 9 feet of wet to saturated clayey sand or sand. Groundwater was first encountered within the clayey sand/sand, and this is considered the first groundwater-bearing unit (GWBU). The well borings were advanced through the first GWBU into the underlying clay, and were terminated at depths ranging from 44 to 45 feet.

Two soil samples were collected from each well boring from intervals selected by the field geologist based on observations (staining, odors) and PID readings. If no intervals indicated the potential presence of hydrocarbons or other contaminants, a sample was collected from within the upper 5 or 10 feet and from the capillary fringe (where groundwater is encountered).

Two well borings contained measureable PID readings. Well boring MW-3 had one PID reading of 54 ppm at 24 feet bgs, and thus the deeper sample from this boring was collected from 22.5 to 25 feet bgs (which was above where groundwater was encountered). The highest PID readings measured were 1,197 ppm and 1,897 ppm in well boring MW-4 at depths of 23 and 26 feet bgs.

Soil samples were collected from 21 to 25 feet bgs and 25 to 27 feet bgs (which is above where groundwater was encountered). In addition, a strong gasoline odor was present at 25 feet bgs.

The soil samples (including the duplicate sample) were packed on ice and delivered to A&B for analysis of TPH by TX-Method 1005, TPH by TX-Method 1006 (all samples initially placed on hold for this analysis), and VOCs (BTEX) by SW-846 Method 8260B. As previously mentioned, the VOC samples from the parts washer area (MW-1) were analyzed for the full suite of VOC constituents in lieu of BTEX. The soil samples from the UST areas were also analyzed for lead using EPA Method 6020.

Following completion of soil sampling, each monitor well was constructed with 2-inch Schedule 40 polyvinyl chloride (PVC) casing with a 0.5-foot sump, 15 to 20 feet of 0.010-slotted PVC screen, and riser to the surface. The wells were completed with concrete flush-mount well pads.

The relative top of casing elevations (using an assumed datum) of the newly installed monitor wells were surveyed on 26 October 2017 by WESTON. The locations of the wells are shown on Figure 2, and a summary of well completion information and top of casing elevations is included in Table D1.

Field documentation of monitor well completion and soil sampling activities as well as well logs and State Well Reports are included in Attachment C.

WELL DEVELOPMENT AND GROUNDWATER SAMPLING

The newly installed wells were developed on 25 and 26 October 2017. On 27 October 2017, MW-1 to MW-4 were gauged, then purged and sampled with a peristaltic pump following low-flow sampling procedures. During well purging, water quality parameters including pH, temperature, and specific conductivity were monitored and recorded on the field data sheets included in Attachment C.

One duplicate groundwater sample (DUP-3) was collected from well MW-4 for QA/QC purposes.

The groundwater samples were delivered to A&B for analysis of VOCs by SW-846 Method 8260B (full suite) and lead by SW-846 Method 6020. Due to elevated turbidity measurements observed during well development, both unfiltered and filtered samples for lead analysis were collected, with the filtered samples placed on hold. Based on the preliminary lead data reported by A&B for the unfiltered lead samples, analysis of the filtered samples was not required.

Samples were also shipped to DHL for analysis of TPH by TX-Method 1005, with samples for PAH and PCB analyses placed on hold pending preliminary TPH 1005 data. Based on the preliminary TPH 1005 data reported by DHL for the MW-3 groundwater sample, PAH analysis of this sample was requested. All samples were analyzed on a 5-day TAT basis, with the exception of TPH, which was analyzed on a 2-day TAT basis.

Field documentation of monitor well developing and sampling activities is included in Attachment C.

QA/QC SAMPLES

In addition to the field duplicates previously discussed, other QA/QC samples collected included one field blank (collected during soil sampling) and one equipment rinsate blank (collected during groundwater sampling). One trip blank was included in each cooler containing samples for VOC analysis. The field blank and trip blanks were analyzed for VOCs (full suite), and the equipment rinsate blank was analyzed for VOCs, TPH, and lead. Analytical data for QA/QC samples is included in Attachment E.

INVESTIGATION-DERIVED WASTE

The investigation-derived waste (IDW) generated from site assessment activities was placed in 55-gallon steel drums for temporary storage on-site. The IDW consisted of 13 drums of soil cuttings and 5 drums of development/purge/decontamination water. One composite soil sample was collected for laboratory analysis by A&B for waste classification purposes. The soil sample was analyzed for TPH, VOC, PAHs, and toxicity characteristic leachate procedure (TCLP) metal analyses.

DATA COLLECTED

Because soil borings SB-1 to SB-4, SB-5, SB-6, and well MW-1 were completed and sampled to evaluate potential impacts from the hydraulic lifts, chemical storage area, and parts washer, the data obtained from these borings/well are subject to evaluation under the Texas Risk Reduction Program (TRRP). Reported concentrations of COCs in soil samples were compared to TRRP Tier 1 0.5-acre source area residential soil to groundwater ingestion ($^{GW}Soil_{Ing)}$ protective concentration levels (PCLs), and reported concentrations of COCs in groundwater were compared to TRRP Tier 1 Residential PCLs for the groundwater ingestion ($^{GW}GW_{Ing}$) exposure pathway.

Soil and groundwater samples were collected from wells MW-2 to MW-4 to evaluate potential impacts from former USTs. As such, the associated soil and groundwater data are subject to evaluation under the TCEQ Petroleum Storage Tank (PST) Program. Surface soil (0 to 15 feet bgs), subsurface soil (greater than 15 feet bgs), and groundwater data from these three wells were compared to PST Program Action Levels (action levels).

SOIL DATA

The soil analytical results are presented on Tables D2 and D3 in Attachment D and the laboratory data packages are included in Attachment E.

A brief discussion of the soil results is presented in the following section (reported results represent the higher of the normal or the duplicate soil concentrations).

Soil Borings and Well MW-1

TPH was reported in two soil samples collected from inside the buildings. TPH carbon ranges C6-C12 and >C28-C35 were reported at concentrations of 48 milligrams per kilogram (mg/kg) and 70.4 mg/kg in the soil sample collected from 6 to 8 feet bgs in SB-3 (SB-3-6-8). These reported concentrations are below their respective $^{GW}Soil_{Ing}$ PCLs of 65 and 200 mg/kg, respectively. TPH carbon ranges >C12 to C28 and >C28-C35 were reported in the 3- to 5-foot sample at SB-7 (SB-7-3-5) at concentrations of 112 mg/kg and 188 mg/kg. Both of these reported concentrations are below their respective $^{GW}Soil_{Ing}$ PCLs of 200 mg/kg.

Since lubricating oils fall within the >C28-C35 range, samples SB-3-6-8 and SB-7-3-5 were also analyzed for PCBs. PCBs were not reported above the sample detection limits (SDLs) in either soil sample.

Benzene was reported at a concentration of 0.009 mg/kg in soil sample SB-3-8-10, which is below the $^{GW}Soil_{Ing}$ PCL of 0.026 mg/kg. Estimated concentrations of toluene (0.003 J mg/kg) and xylenes (0.004 J) were also reported in soil sample SB-3-8-10. These concentrations are below the $^{GW}Soil_{Ing}$ PCLs of 8.2 mg/kg and 120 mg/kg, respectively.

Wells MW-2 to MW-4

Lead was reported at a concentration of 6.13 mg/kg and 7.81 mg/kg in soil samples MW-2-10-12.5 and MW-2-33-35. Lead was also reported at concentrations of 11.5 mg/kg and 10.1 mg/kg in soil samples MW-4-21-25 and MW-4-25-27. While there is no PST Action Level for lead, these reported concentrations are below the Texas Specific Background Concentration of 15 mg/kg.

TPH carbon range C6-C12 was reported in samples MW-4-21-25 and MW-4-25-27 at concentrations of 33.2 mg/kg and 31.4 mg/kg, respectively. There is not a PST action level for TPH; TPH analysis is used only to screen for PAHs. However, as noted in TCEQ Regulatory Guidance (RG) 411, *Investigating and Reporting Releases from Petroleum Storage Tanks (PSTs)*, reported concentrations of TPH carbon range C6-C12 do not trigger the need for PAH analysis (only reported concentrations in carbon ranges greater than C12).

Methyl ethyl ketone (MEK) was reported at a concentration of 0.006 mg/kg and 0.037 mg/kg in soil samples MW-3-2-4 and MW-3-22.5-25, respectively. There is not a published PST Action Level for MEK; however, MEK is a common laboratory contaminant, and most likely is not attributable to the site.

Multiple fuel-related VOCs were reported in soil samples MW-4-21-25 and MW-4-25-27. Of these VOCs reported, only BTEX and naphthalene have PST Action Levels. Benzene was reported above the PST Action Level of 0.12 mg/kg in both soil samples (0.874 mg/kg and 7.58 mg/kg, respectively). Toluene (45.9 mg/kg) and total xylenes (142.1 mg/kg) were reported above their action levels of 39.1 mg/kg and 117 mg/kg, respectively, in soil sample MW-4-25-27. The reported concentrations of ethylbenzene in both samples, and toluene and xylenes in MW-4-21-25, were below their respective action levels. The reported concentrations of

naphthalene in both samples (0.883 mg/kg and 6.80 mg/kg, respectively) were below the action level of 99.7 mg/kg.

The distribution of COCs reported above action levels in soil based on the Phase II ESA is depicted on Figure 3.

GROUNDWATER DATA

A summary of the static groundwater level measurements is provided in Table D1. Based on the static water level measurements, the groundwater flow direction in the first GWBU appears to be toward the east-southeast, as depicted on Figure 3.

The groundwater analytical results are presented on Tables D4 and D5 in Attachment D, and the laboratory data packages are included in Attachment E.

Well MW-1

Lead was reported at a concentration of 0.0004 milligrams per liter (mg/L) in the groundwater sample collected from MW-1, which is below the $^{GW}GW_{Ing}$ PCL of 0.015 mg/L. No other analytes were reported above the SDLs in this groundwater sample.

Wells MW-2 to MW-4

TPH carbon ranges C6-C12 and C12-C28 were reported at concentrations of 0.72 mg/L and 0.827 mg/L, respectively, in the groundwater sample collected from MW-3. TPH carbon range C6-C12 was also reported at a concentration of 5.39 mg/L in the groundwater sample collected from MW-4. Because a carbon range greater than C12 was reported in the MW-3 groundwater sample, this sample was also analyzed for PAHs. Fluoranthene (0.0000319 J mg/L), naphthalene (0.0000718 mg/L), and phenanthrene (0.0000389 mg/L) were reported in this groundwater sample, but at concentrations below their action levels of 1.46 mg/L, 0.73 mg/L, and 1.1 mg/L, respectively.

Lead was reported at a concentration of 0.001 mg/L in the groundwater sample collected from MW-4. Lead was not reported above the SDL in the groundwater samples from MW-2 or MW-3. There is not a PST action level for lead, but the reported concentration is below the TRRP PCL of 0.015 mg/L.

Multiple fuel-related VOCs were reported in the MW-4 groundwater sample. Of these VOCs reported, only BTEX and naphthalene have PST Action Levels. Benzene was reported at a concentration of 0.449 mg/L, which is above the action level of 0.005 mg/L. The reported concentrations of toluene (0.185 mg/L), ethylbenzene (0.137 mg/L), xylenes (0.546 mg/L), and naphthalene (0.039 mg/L) were below their respective action levels (1 mg/L, 0.7 mg/L, 10 mg/L, and 0.73 mg/L, respectively).

The distribution of COCs reported above action levels in groundwater based on the Phase II ESA is depicted on Figure 5.

INVESTIGATION-DERIVED WASTE

Analytical results from the IDW soil sample and individual groundwater sample data indicated that the IDW was classified as a Class 2 non-hazardous waste. The soil IDW analytical data package is included in Attachment F.

WESTON is currently coordinating removal of the drum for off-site disposal at a licensed disposal facility and will provide DRA with a copy of the waste manifest confirming disposal upon receipt.

DATA USABILITY SUMMARY

Analytical results were reviewed according to guidelines presented in the TCEQ regulatory guidance *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) issued May 2010. The Data Usability Summary (DUS) report contains the results of the data review for soil and groundwater samples collected in October 2017. The DUS report (which includes the analytical data packages) is included in Attachment E.

Laboratory analytical data resulting from the Phase II ESA activities were deemed usable for the project.

CONCLUSIONS AND RECOMMENDATIONS

Phase II ESA activities were performed at the subject property in September and October 2017 to evaluate potential environmental conditions associated with historical and current property use. Conclusions and recommendations are provided as follows:

- The geophysical survey did not identify anomalies that indicated the presence of undocumented USTs or other buried materials.

- Based on the soil and groundwater data obtained from inside the buildings, it does not appear that a release has occurred in association with the hydraulic lifts, chemical storage area, or parts washer.

- The presence of benzene, toluene, and xylenes in soil and benzene in groundwater at concentrations above PST Action Levels in well MW-4 indicates a release has occurred, and likely as a result of the former fuel USTs. This release should be reported to the TCEQ PST Program. The PST Program will assign an LPST case number, and will typically require additional assessment and potential remediation of the affected groundwater. For this site, expected activities include the following:

    - Prepare and submit a Release Determination Report (RDR), describing the activities completed that identified the release.

- Determine the extent and stability of the plume. At a minimum, this will require the installation of one monitor well (MW-5) downgradient of MW-4. If this does not define the limits of the plume, additional monitor wells may be required.

- Prepare and submit an Assessment Report Form (ARF) that documents activities associated with new well MW-5.

- Once the extent of the plume has been defined, complete a total of four groundwater monitoring events to demonstrate plume stability, and submit the data collected during those events in a Groundwater Monitoring Report (GMR), which will include a Site Closure Request (SCR). If TCEQ approves the SCR, plug and abandon the wells, then prepare a Final Site Closure Report (FSCR) documenting the well plugging activities. At that time, TCEQ will issue a closure letter confirming compliance.

CLOSING

If DRA has any questions or comments regarding this report, please contact me at (713) 985-6610.

STATE OF TEXAS
DAWN DENHAM
GEOLOGY
344
LICENSED
PROFESSIONAL GEOSCIENTIST

Dawn Denham
2017.12.18
16:53:48
-06'00'

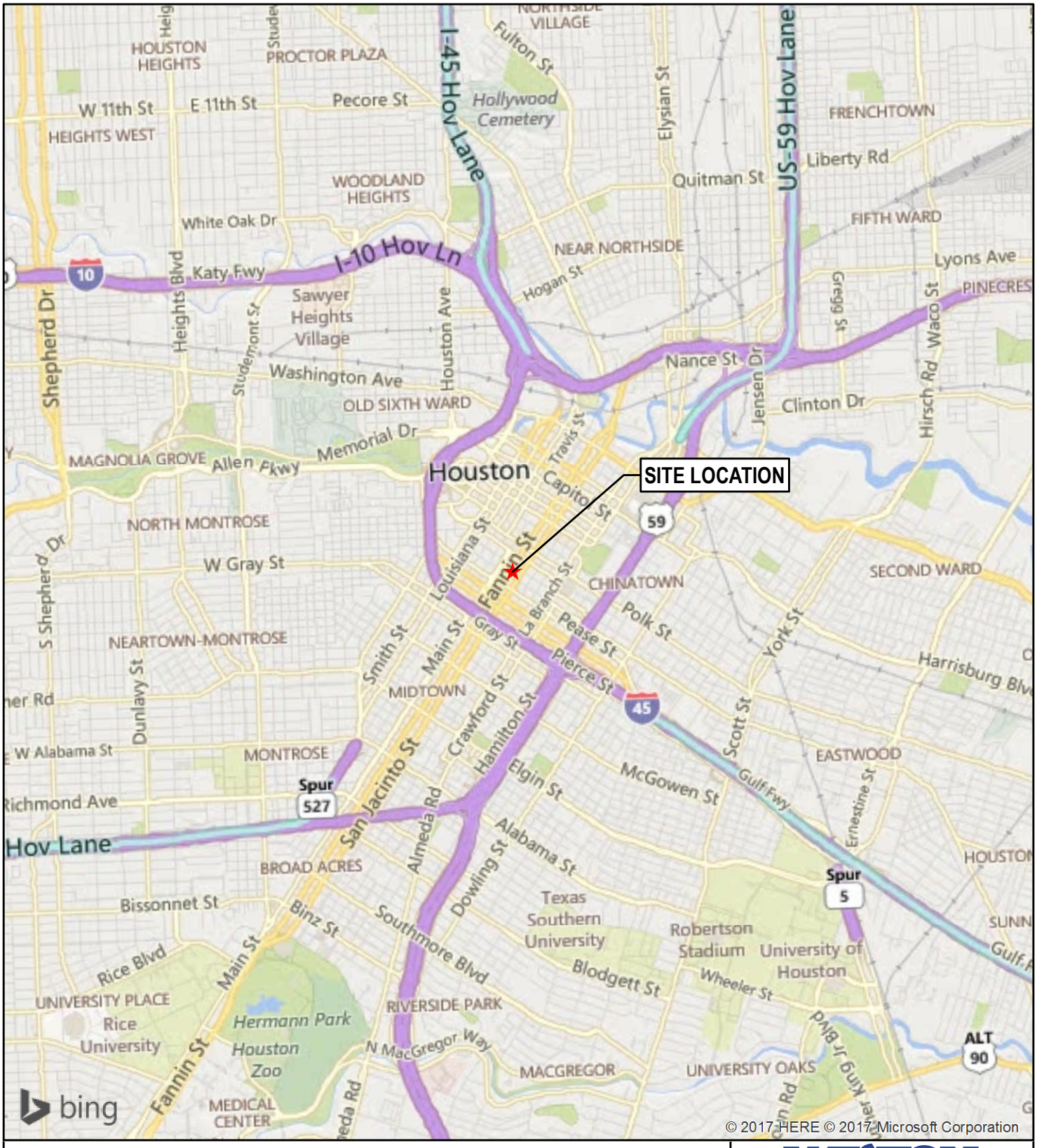
Very truly yours,
WESTON SOLUTIONS, INC.

Dawn Denham, P.G.

Dawn Denham, P.G.
Project Manager

Attachments
cc: Ashby McMullan (WESTON)

ATTACHMENT A
FIGURES



1 0 1

Miles

N

NOTE(S): Block 333 is bounded by Fannin, Bell, San Jacinto, and Leeland Streets.

SOURCE: 2010 Microsoft Corporation and its data suppliers

FIGURE 1
SITE LOCATION MAP
PORTIONS OF BLOCK 333
DOWNTOWN, HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER, 2017	15533.001.001.0001	AS SHOWN

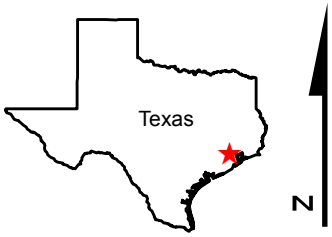
FILE: C:\Users\schrotp\Desktop\ArcGIS_Project_Site_Name\NASATX1\ATX_DATA\GIS\GIS Project Files\15533 Houston Downtown Mgt\Phase I ESA\mxd\Site Location Map.mxd 10:53:10 PM 12/6/2017 SCHROTP

LEGEND

- Soil Boring (Could not be completed due to subsurface obstructions)
- Soil Boring
- Monitoring Well
- Property Boundary
- Approximate Location of Former USTs
- Building
- Parts Washer

0 60 120

Feet



NOTE(s): Property Boundary line and Building outline from land survey performed by Landtech on 9/11/2017.

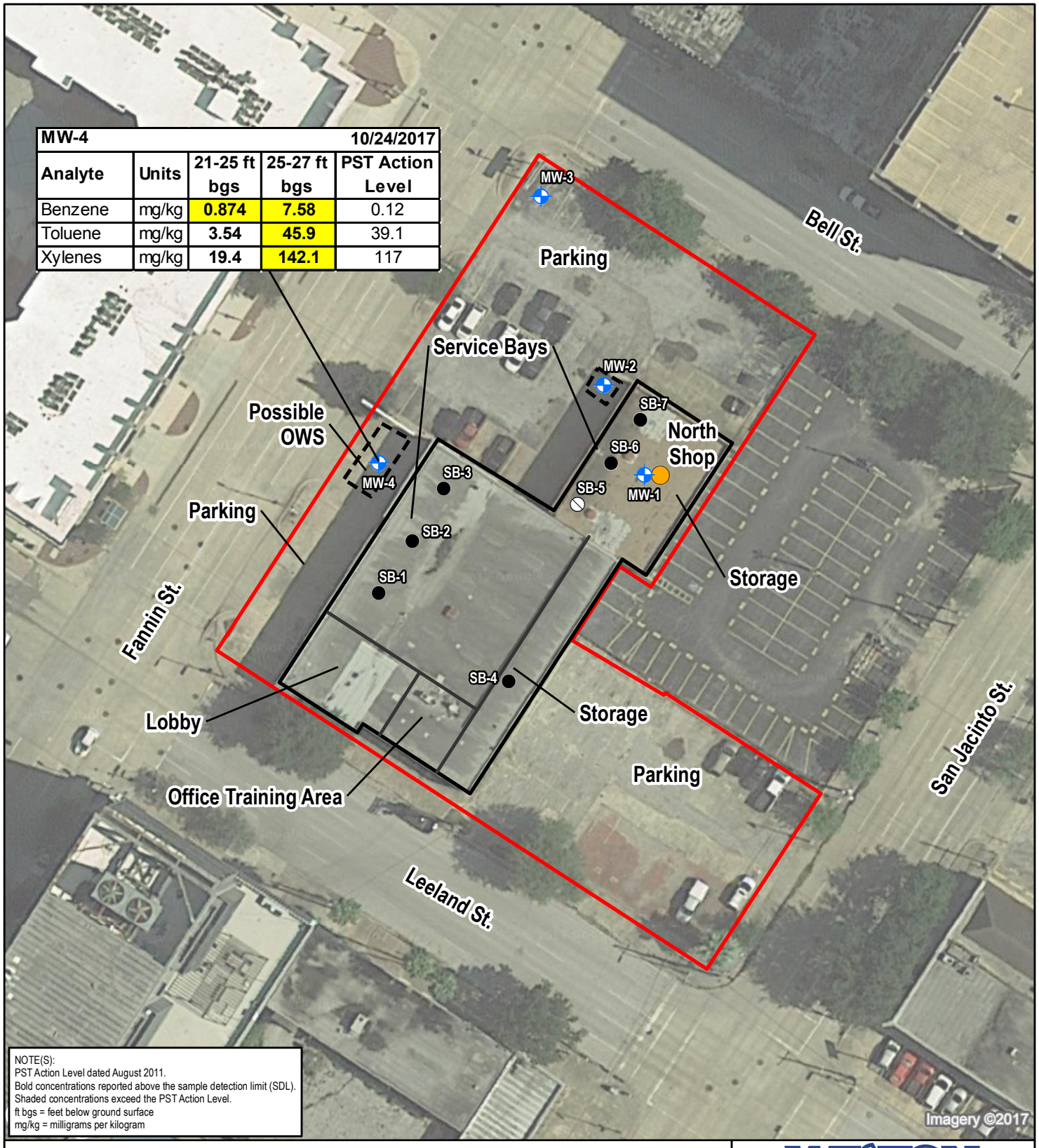
SOURCES: 1. Google Satellite HD, 2017 2. City of Houston Geographical Information and Management System

WESTON SOLUTIONS

FIGURE 2
SAMPLE LOCATION MAP
PORTIONS OF BLOCK 333 PHASE II ESA
DOWNTOWN, HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER, 2017	15533.002.001.0003	AS SHOWN

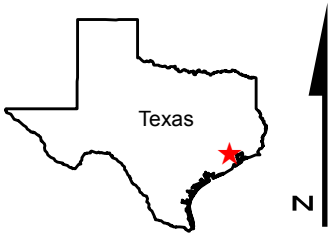
FILE: C:\Users\schrotp\Desktop\ArcGIS_Project_Site_Name\NASATX1\ATX_DATA\GIS\GIS Project Files\15533 Houston Downtown Mgt\Phase I ESA\mxd\Sample Location Map.mxd 11:19:35 AM 12/7/2017 SCHROTP



LEGEND

- Soil Boring (Could not be completed due to subsurface obstructions)
- Soil Boring
- Monitoring Well
- Property Boundary
- Approximate Location of Former USTs
- Building
- Parts Washer

0 60 120
Feet



NOTE(s): Property Boundary line and Building outline from land survey performed by Landtech on 9/11/2017.

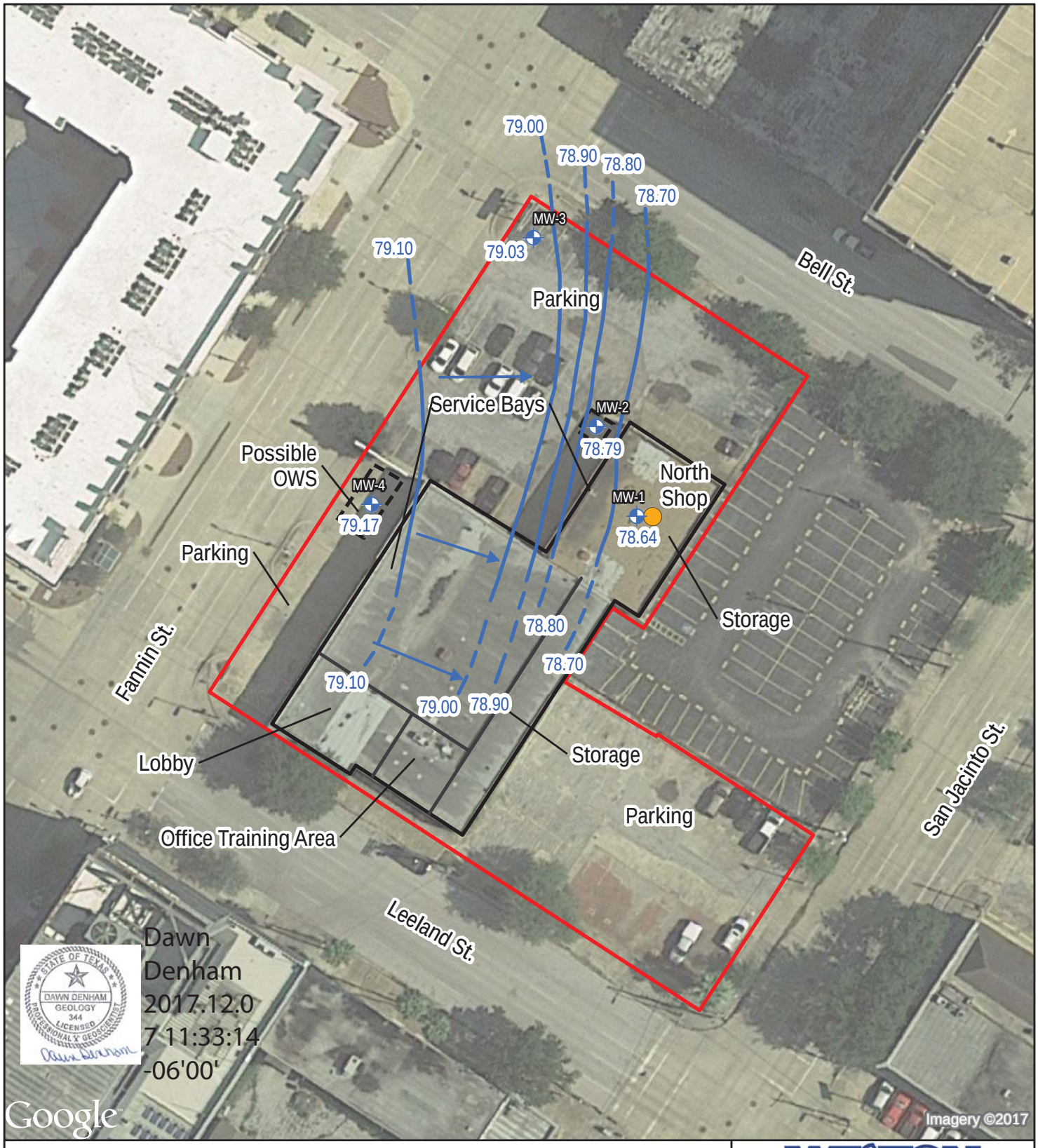
SOURCES: 1. Google Satellite HD, 2017 2. City of Houston Geographical Information and Management System

WESTON SOLUTIONS

FIGURE 3
SOIL COC CONCENTRATION EXCEEDANCES MAP
PORTIONS OF BLOCK 333 PHASE II ESA
DOWNTOWN, HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER, 2017	15533.002.001.0003	AS SHOWN

FILE: C:\Users\schrotp\Desktop\ArcGIS_Project_Site_Name\NASATX1\ATX_DATA\GIS\GIS Project Files\15533 Houston Downtown Mgt\Phase I ESA\mxd\Soil COC Exceedances Map.mxd 11:27:02 AM 12/7/2017 SCHROTP



LEGEND

- Monitoring Well
- Property Boundary
- Building
- Groundwater Potentiometric Contour (ft AMSL) (Dashed where inferred)
- Groundwater Flow Direction
- Approximate Location of Former USTs
- Parts Washer
- 79.10 October 2017 Groundwater Elevation (ft AMSL)

0 60 120
Feet

NOTE(S):
Monitoring wells gauged on 27 October 2017.
Property Boundary line and Building outline from land survey performed by Landtech on 9/11/2017.

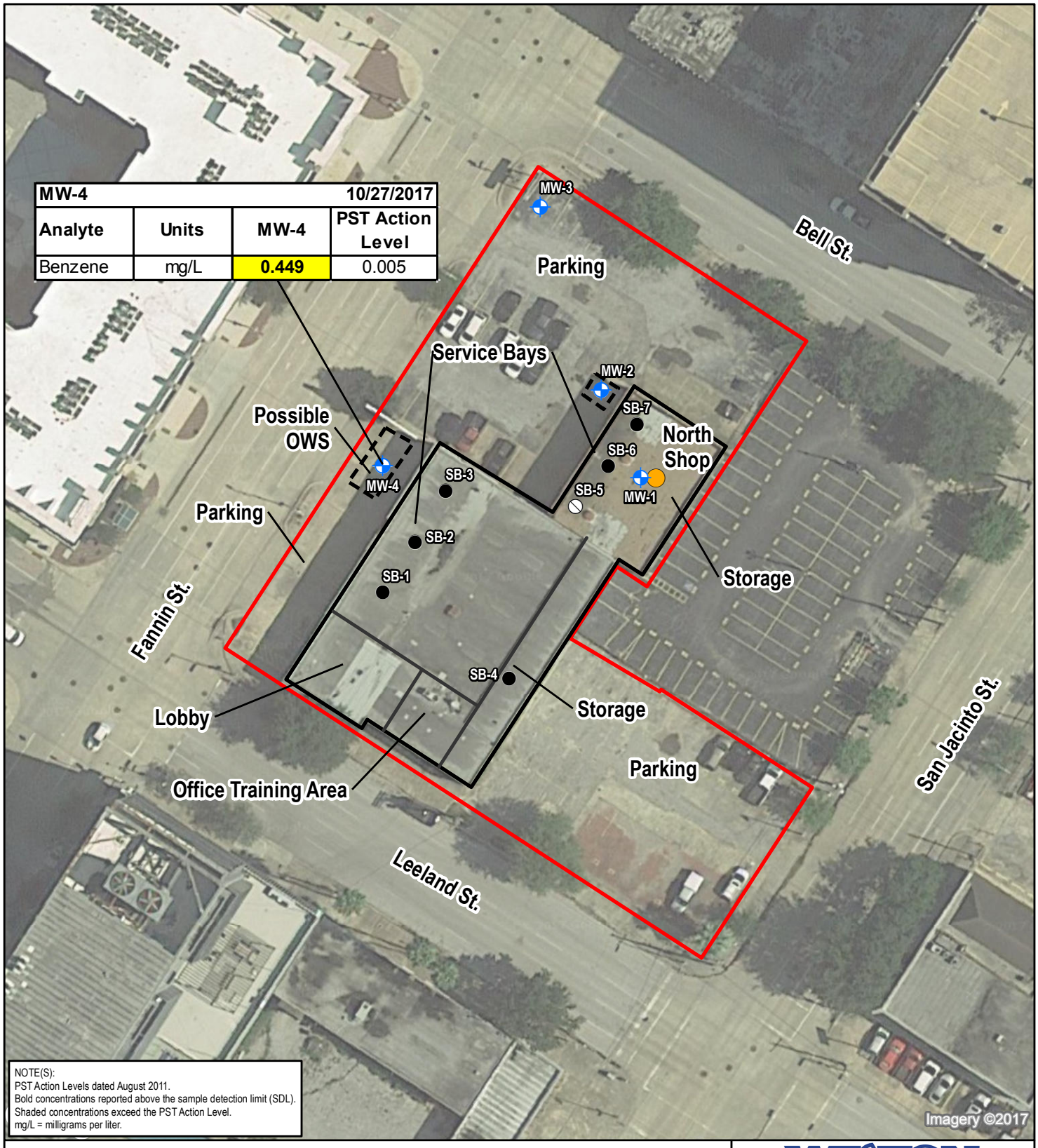
SOURCES: 1. Google Satellite HD, 2017 2. City of Houston Geographical Information and Management System

WESTON SOLUTIONS

FIGURE 4
GROUNDWATER POTENTIOMETRIC MAP
PORTIONS OF BLOCK 333 PHASE II ESA
DOWNTOWN, HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER, 2017	15533.002.001.0003	AS SHOWN

FILE: C:\Users\schrotp\Desktop\ArcGIS_Project_Site_Name\NASATX1\ATX_DATA\GIS\GIS Project Files\15533 Houston Downtown Mgt\Phase I ESA\mxd\Groundwater Potentiometric Map.mxd 11:31:21 AM 12/7/2017 SCHROTP

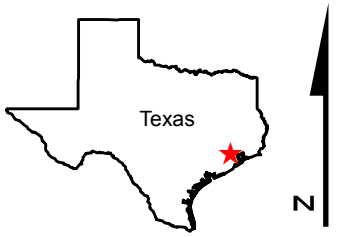


NOTE(S):
PST Action Levels dated August 2011.
Bold concentrations reported above the sample detection limit (SDL).
Shaded concentrations exceed the PST Action Level.
mg/L = milligrams per liter.

LEGEND

- Soil Boring (Could not be completed due to subsurface obstructions)
- Soil Boring
- Monitoring Well
- Property Boundary
- Approximate Location of Former USTs
- Building
- Parts Washer

0 60 120
Feet



NOTE(s): Property Boundary line and Building outline from land survey performed by Landtech on 9/11/2017.

SOURCES: 1. Google Satellite HD, 2017 2. City of Houston Geographical Information and Management System

WESTON SOLUTIONS

FIGURE 5
GROUNDWATER COC CONCENTRATION EXCEEDANCES MAP
PORTIONS OF BLOCK 333 PHASE II ESA
DOWNTOWN, HOUSTON, TEXAS

DATE	PROJECT NO	SCALE
DECEMBER, 2017	15533.002.001.0003	AS SHOWN

FILE: C:\Users\schrotp\Desktop\ArcGIS_Project_Site_Name\NASATX1\ATX_DATA\GIS\GIS Project Files\15533 Houston Downtown Mgt\Phase I ESA\mxd\GW COC Exceedances Map.mxd 11:36:05 AM 12/7/2017 SCHROTP

ATTACHMENT B
GEOPHYSICAL SURVEY REPORT

EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

Geophysical Subsurface Investigation Survey

BLOCK 333
1519 FANNIN STREET
HOUSTON, TEXAS

PERFORMED BY:
THE EARTH MEASUREMENT CORP.
OCTOBER, 2017

Professionally solving subsurface questions

EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

17 October 2017

Mrs. Dawn Denham
WESTON SOLUTIONS
5599 San Felipe St #700
Houston, Texas, 77056
Phone: 713.985.6600

Re: Geophysical Subsurface Investigation Survey
Block 333, 1519 Fannin Street, Houston, Texas
EMC Project # WS091714

Dear Mrs. Denham,

This report describes the results of a geophysical survey performed by the Earth Measurement Corp. (**EMC**) on October 10th 2017 at Block 333, 1519 Fannin Street in Houston, Texas.

PROJECT SCOPE

The scope of this project was to locate and delineate any possible underground storage tanks (UST) or unusual anomalies under the concrete and asphalt. The survey area was approximately 250' x 140'. The project also consisted of clearing ten (10) small areas that are (20' x 20') in size, to locate any utilities, pipelines or conduits that might interfere with the drilling activities.

DATA ACQUISITION

EMC fielded a three-person crew for the acquisition phase of this project: Equipment Operations Specialist - Chance Austin & Mark Kuney and Cartographer - Jeff Watkins. Before surveying operations began, a five-foot by five-foot (5' x 5') grid system was laid out over the survey area. The purpose of the grid system is to ensure uniform data acquisition and accurate correlation between surface features and any subsurface findings.

GEOPHYSICAL EQUIPMENT

After a general site inspection and walkthrough, it was deemed that three specific technologies would be implemented: Ground Penetrating Radar, Electromagnetics and Radiometrics.

The Ground Penetrating Radar (GPR) instruments used at this site were Geophysical Survey Systems, Inc. (GSSI), Subsurface Interface Radar Systems 3000 (SIR-3000). A 400 MHz antenna and a 270 MHz antenna were deemed to be the best choices for this site, based on desired investigation depth and general site conditions. The SIR-3000 utilizes impulse radar technology to obtain a continuous, high-resolution profile of the subsurface. The radar signal transmitted into the subsurface is produced by electrically

discharging a pulse of electromagnetic energy from a special antenna. The transmitted pulse travels through the subsurface until it reaches a soil interface or an embedded object. Then, depending on the electrical characteristics of the interface or object, a portion of the transmitted pulse is reflected back to the surface, where it is picked up by the receiver section of the antenna. The received signal is processed and a real-time replica of the information is displayed. Depth of subsurface penetration is directly dependent upon the conductivity of the soil.

The EM-61 instrument used was a Geonics Electromagnetic Meter, Model EM-61 MK2. The EM-61 MK2 uses induced-pulse electric fields to find buried ferrous objects while minimizing the response of host material. Stated another way, the EM-61 MK2 is a metal detector capable of measuring the amplitude response of buried metals as well as the lack of amplitude associated with non-metallic objects. The depth of penetration for this instrument is approximately ten feet (10').

The additional instrument used on this project was the RadioDetection RD8000 locator (Induction). The RD8000 is designed to locate buried pipes, lines, and cables. Several frequencies and modes of operation are available to suit specific locating needs.

More information on any of these technologies can be found in the 'Equipment Descriptions' section of this report.

DATA PROCESSING

After the data were acquired, geotechnical software was utilized to process the GPR information for the Earth's normal field of adjustments, terrain corrections and filtering to discriminate against extraneous interference. The GPR data was post-processed using Geophysical Archaeometry Laboratory's GPR- Slice proprietary software package. The EM data were post-processed and mapped using Golden Software's Surfer 12 Contour and Mapping program.

The maps developed from the survey were a Ground Penetrating Radar Map, Electromagnetic Map and an Interpretive Map indicating revealed anomalous locations. The Interpretive Map is composite of all the geophysical information and shows the relative surface locations of all the subsurface findings.

Please note: Some explanation on the radar method seems in order at this point. The images produced by radar through the use of the GPR-SLICE software package, actually through any software are simply a visual presentation, that there is a change in the dielectric property of the medium through which the radar energy is moving. When we arrive on a site to do a radar survey, we initially establish a set of gains that are optimal for that particular site on that particular day. This is necessary due to the fact that a site's characteristics are constantly changing due primarily to moisture content of the soils or whatever medium we are examining. The radar is only going to show a relative change over the course of a survey line. The software will recognize changes in the strength of reflections from the subsurface and these changes are what the software uses to determine anomalous features within the survey area. The radar can make no interpretation as to what is causing the changes in density, i.e. strength of reflectors. That chore is left to humans with some foreknowledge and experience of what is

occurring at a particular site. With some prior information and with the experience of looking at many of these types of situations a "Best Estimate" call has to be made. Please understand that in nearly any set of radar data, there are going to be anomalies and it would become a never ending task of trying to 'guess' what is going on in the subsurface, for that reason we always indicate that the only true method of determining the actual nature of an anomaly is through physical investigation.

INTERPRETATION AND OVERVIEW

A thorough review of all the geophysical data has revealed the following:

The Electromagnetic data was only able to be collected on the asphalt areas. This is due to the sections of the survey area containing heavy steel reinforced concrete, creating noise that exceeding the limits for collection of good quality data readings from the instrument. In the asphalt areas however it revealed the extension of a electrical line (Anomaly B) along with two undiscovered lines. (Anomaly C & D) After post processing all the all the geophysical data collected at the site, there was not any evidence of a UST or voiding within the parking lot.

Looking at the interpretive map and the collective use of our equipment, we have determined there to be no evidence in any UST's located within the survey area we investigated.

The table below contains map coordinates for the anomalies and a description.

Table of Anomalous Locations

Anomaly	Northing	Easting	Description
A	1220	165	The pair of electrical lines run from an electrical box on the building to the end of the guard rail. They were located via Radiodetection.
B	1190	170	This electrical line appears to be from a removed sign and run into the shop. Located via Radiodetection.
C	1195	145	The readings from the EM-61 MK2 show the line was cut off on the North-east side.
D	1160	115	High readings from the EM-61 MK2 show a possible line the leads from a line coming out of the building to a metal cover.
E	1130	115	Electrical line that runs from the sign to an electrical box coming out of the building. Located via Radiodetection.
F	1070	115	Line that runs from the street light or metal covers to the building. Located via Radiodetection.
G	1040	115	Line that appears to be heading from a metal cover through another metal cover into the building. Located via Radiodetection.

DELIVERABLES

Included with this report are the following items:

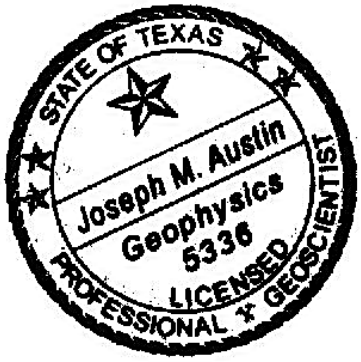
- Equipment Descriptions
- Site Map
- Ground Penetrating Radar Map
- Electromagnetic Map
- Interpretive Map
- 10 (20' X20') Pre-drilling Utility Clearance Maps

STATEMENT

Ground Penetrating Radar is not a definitive measure in obstructed environments and should not be the only method used to define the boundaries of sub-surface anomalies. The interpretation of the processed data describes the anomalies and voids as closely as possible. The survey results described in this report and illustrated on the Interpretive Map represent theories supported by the evidence of the data collected. Based on experience and expertise in the field, **EMC** has every confidence in the results.

Please be advised that original project data will be held in **EMC**'s offices for a period of six months. After that time, the data will be destroyed. **EMC** personnel are always ready to answer any questions about this project. Please do not hesitate to call.

Thank you for this opportunity.



Joe M. Austin
State of Texas Professional Geoscientist
Geophysics – License #5336

SIDEWALK

SURVEY BOUNDARY

GUARD RAIL

SIGN POST

MW-3

GUARD RAIL

ASPHALT

GUARD RAIL

IRON FENCE

DEPRESSION

DEPRESSION

REINFORCED CONCRETE

CUT OFF I BEAMS

CAR

MW-2

ASPHALT

SIDEWALK

REINFORCED CONCRETE

SURVEY BOUNDARY

MW-4

REINFORCED CONCRETE

BUILDING

SEWER

METAL COVER

PARKING STOPS

CURB

REMOVED SIGN

SURVEY BOUNDARY

SIDEWALK

GEOPHYSICAL NORTHINGS

1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050 1040 1030 1020 1010 1000 990

GEOPHYSICAL EASTINGS

90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

N E S W

LEGEND

- PIPELINE / CONDUIT
- MONITOR WELL LOCATION
- DUMPSTER
- SIGN POST
- METAL COVER
- STREET LIGHT POST
- FIRE HYDRANT
- TREE

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

SITE MAP

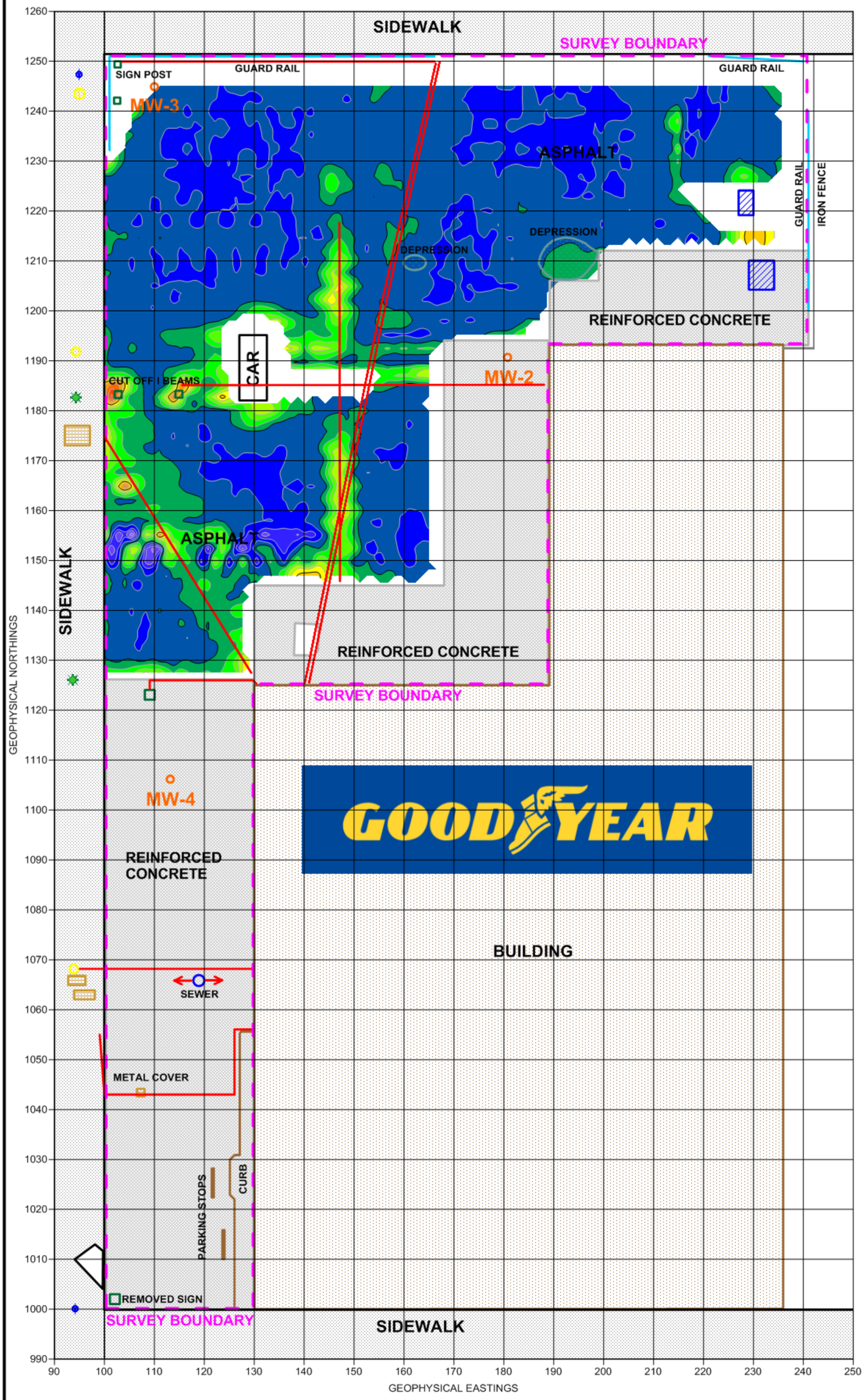
Scale 1" = 10'

0 10 20

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700



N E S W

MEASURED IN PARTS PER THOUSAND (PPT)

-200 -100 0 100 200 300 400 500

LEGEND

- PIPELINE / CONDUIT
- MONITOR WELL LOCATION
- DUMPSTER
- SIGN POST
- METAL COVER
- STREET LIGHT POST
- FIRE HYDRANT
- TREE

WESTON SOLUTIONS

Geophysical Investigation Survey

Block 333, 1519 FANNIN STREET
HOUSTON, TEXAS

ELECTROMAGNETIC MAP

DEPTH OF INVESTIGATION 0' - 9'

Scale 1" = 10'

0 10 20

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics
28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

SIDEWALK

SURVEY BOUNDARY

GUARD RAIL

SIGN POST

MW-3

GUARD RAIL

ASPHALT

GUARD RAIL

IRON FENCE

DEPRESSION

DEPRESSION

REINFORCED CONCRETE

CAR

CUT OFF I BEAMS

MW-2

ASPHALT

SIDEWALK

REINFORCED CONCRETE

SURVEY BOUNDARY

MW-4

REINFORCED CONCRETE

BUILDING

SEWER

METAL COVER

PARKING STOPS

CURB

REMOVED SIGN

SURVEY BOUNDARY

SIDEWALK

GEOPHYSICAL NORTHINGS

1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050 1040 1030 1020 1010 1000 990

GEOPHYSICAL EASTINGS

90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

N E S W

LEGEND

- PIPELINE / CONDUIT
- MONITOR WELL LOCATION
- DUMPSTER
- SIGN POST
- METAL COVER
- STREET LIGHT POST
- FIRE HYDRANT
- TREE

WESTON SOLUTIONS

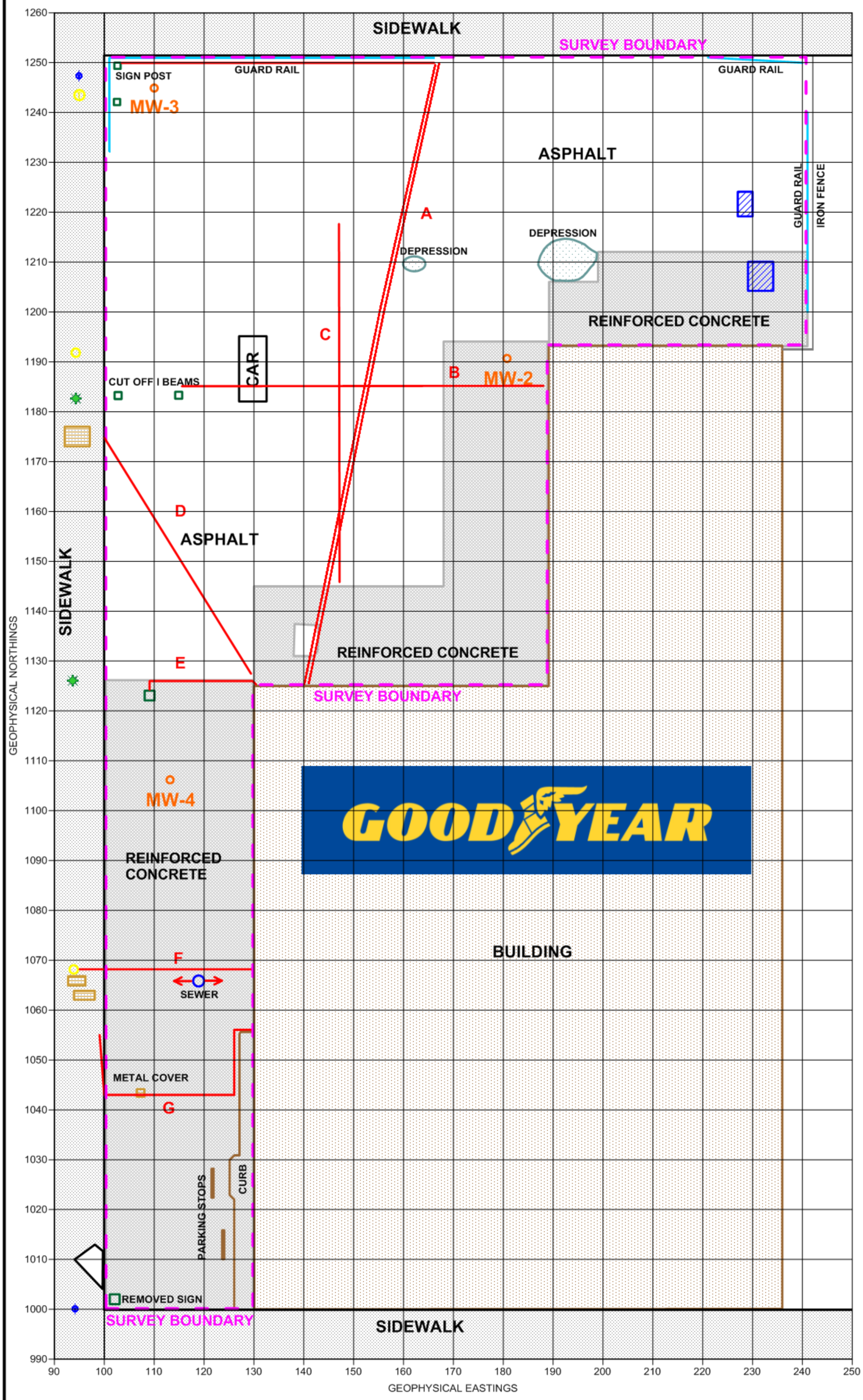
Geophysical Investigation Survey

Block 333, 1519 FANNIN STREET
HOUSTON, TEXAS
GROUND PENETRATING RADAR MAP
DEPTH OF INVESTIGATION 0' - 4'

Scale 1" = 10'
0 10 20

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics
28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700



N E S W

LEGEND

- PIPELINE / CONDUIT
- MONITOR WELL LOCATION
- DUMPSTER
- SIGN POST
- METAL COVER
- STREET LIGHT POST
- FIRE HYDRANT
- TREE

WESTON SOLUTIONS

Geophysical Investigation Survey

Block 333, 1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

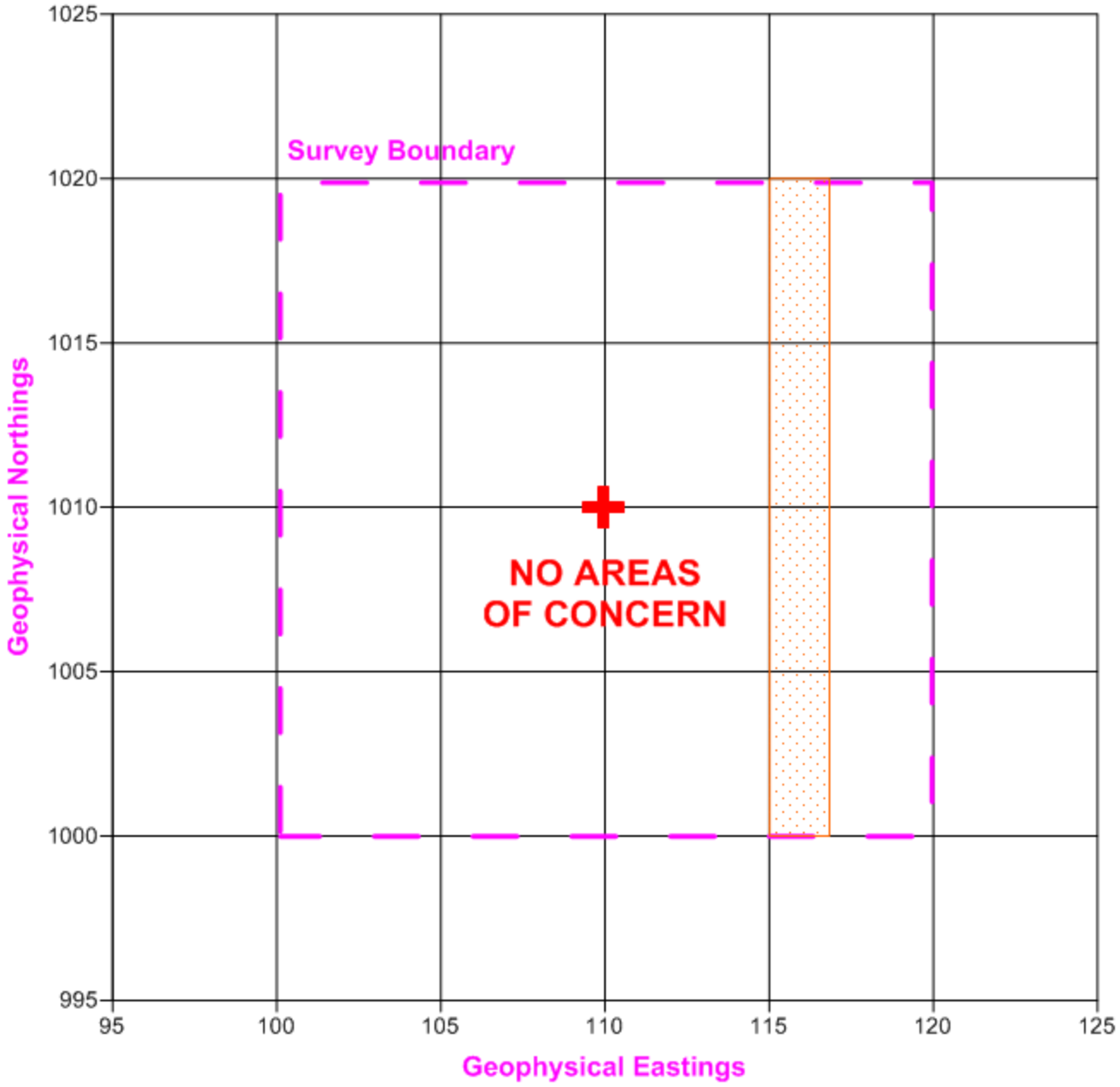
ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 10'
0 10 20

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics
28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # MW-1



LEGEND

- DRILL LOCATION
- WALL

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

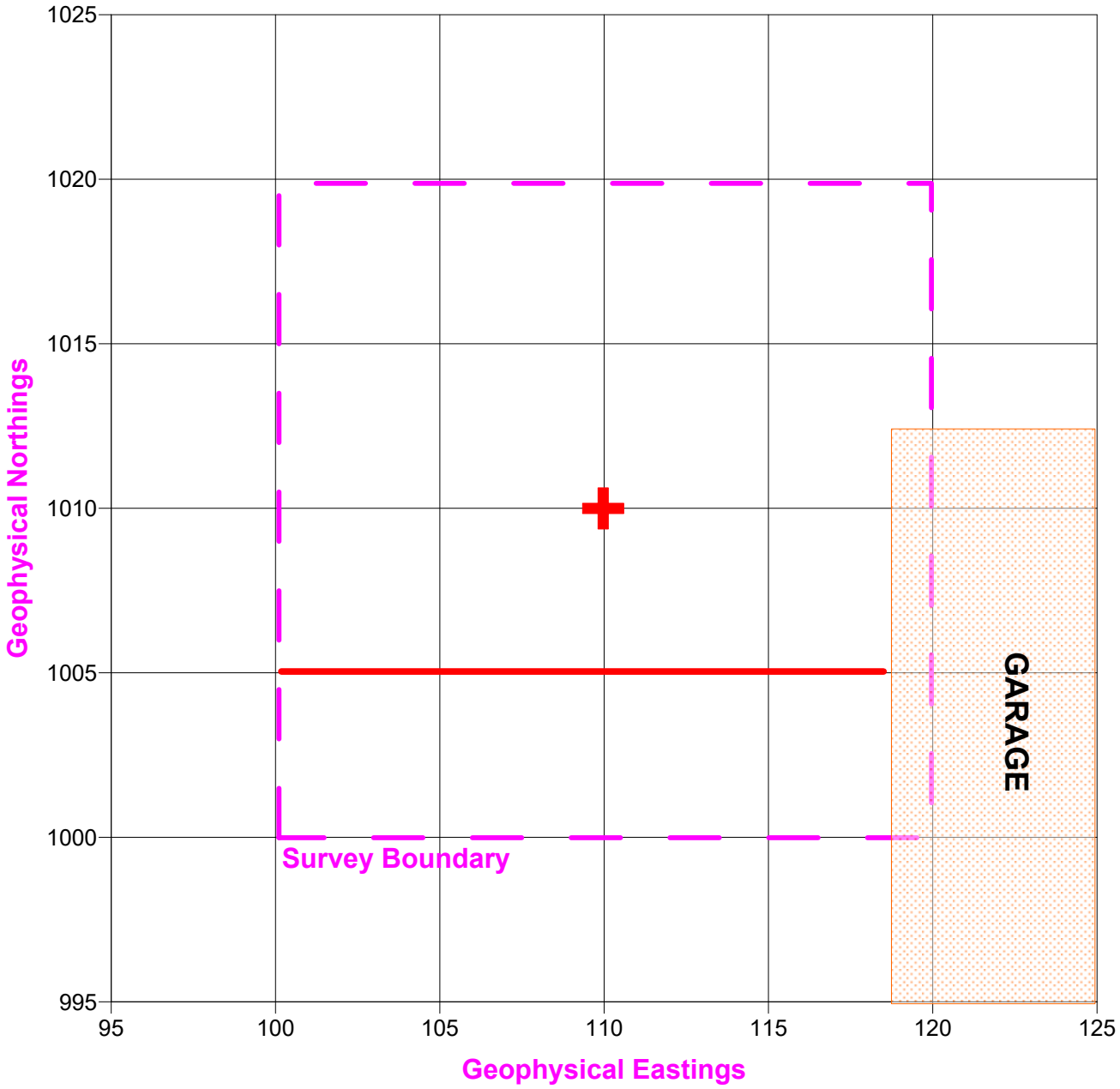
0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # MW-2



LEGEND

DRILL LOCATION

PIPELINE/CONDUIT

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

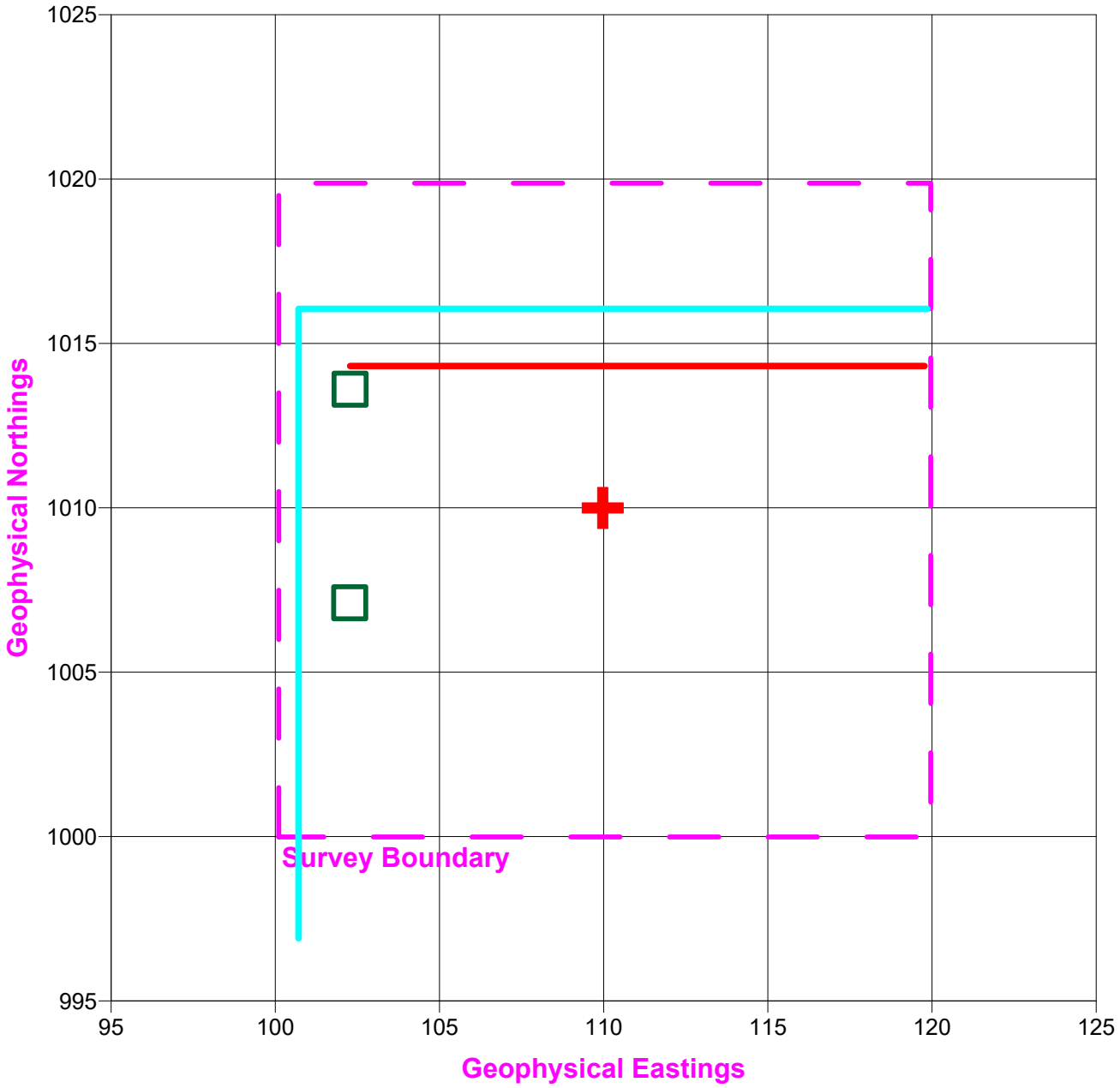
0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # MW-3



LEGEND

- DRILL LOCATION
- GUARDRAIL
- SIGN POST
- PIPELINE/CONDUIT

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

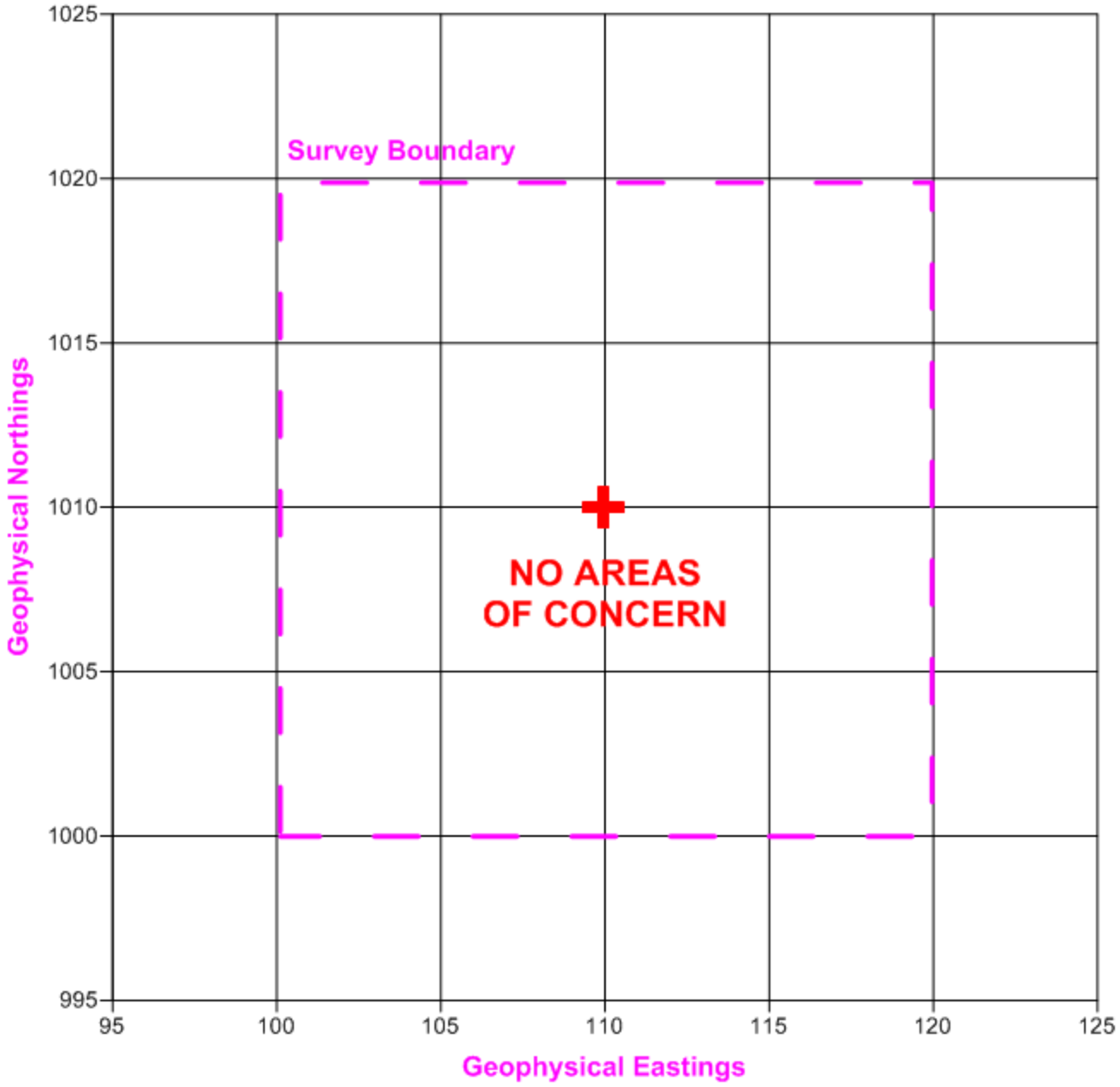
0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # MW-4



LEGEND

DRILL LOCATION

N

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

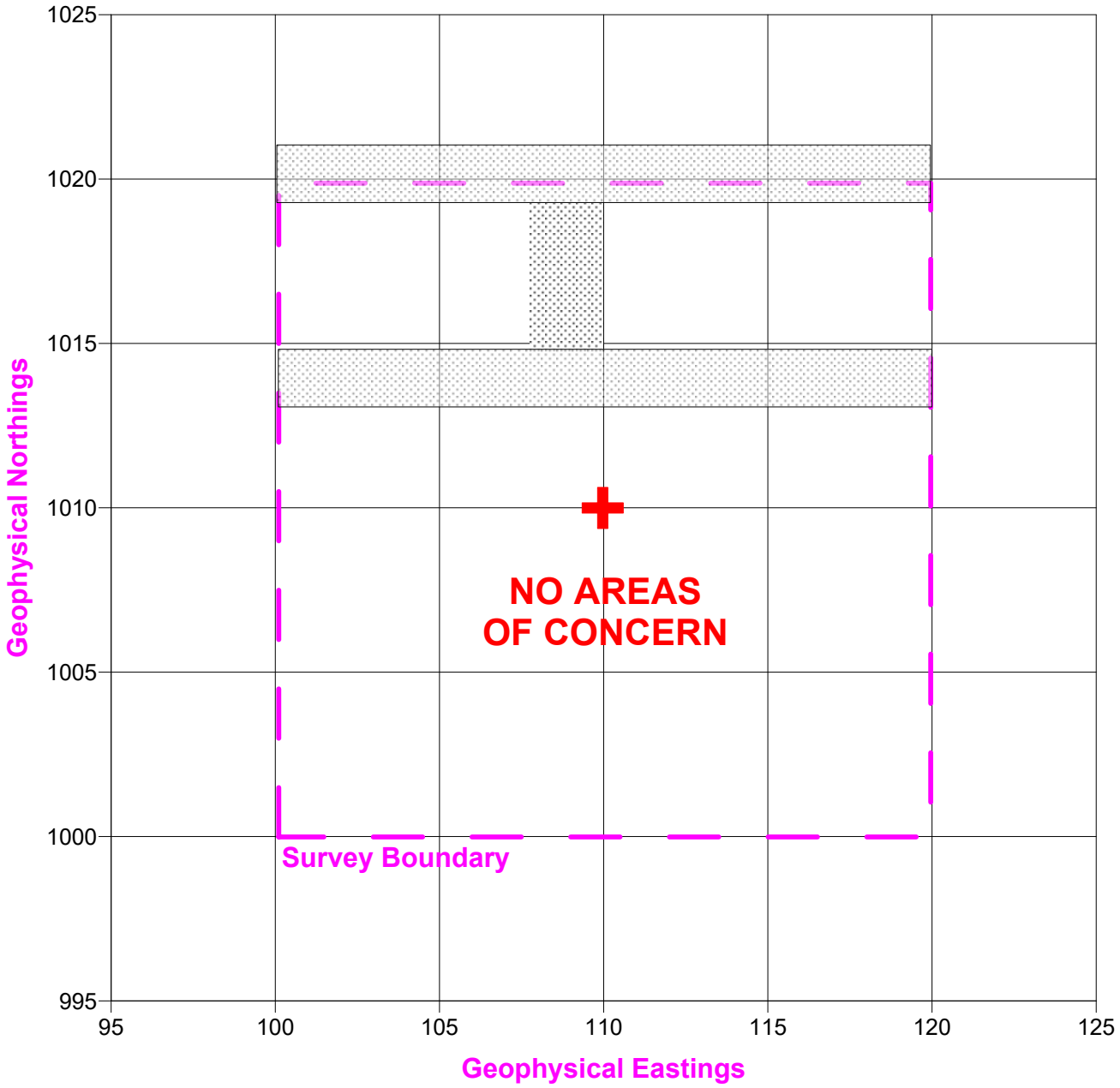
0 5 10

OCT. 2017

EMC
EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-1



LEGEND

DRILL LOCATION

TRUCK LIFT

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

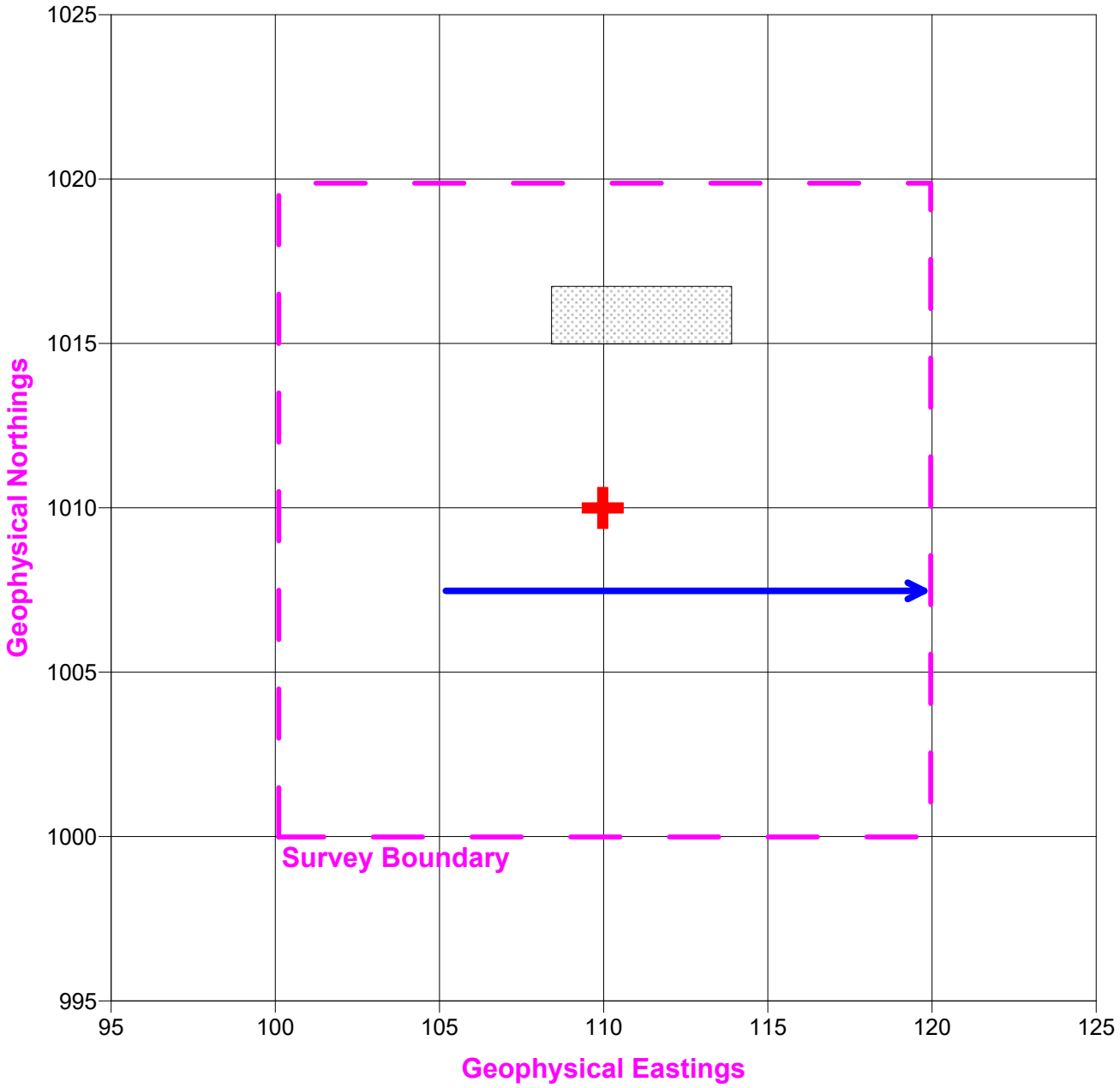
0 5 10

OCT. 2017

EMC
EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-2



LEGEND

- DRILL LOCATION
- CAR LIFT
- DRAIN LINE

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

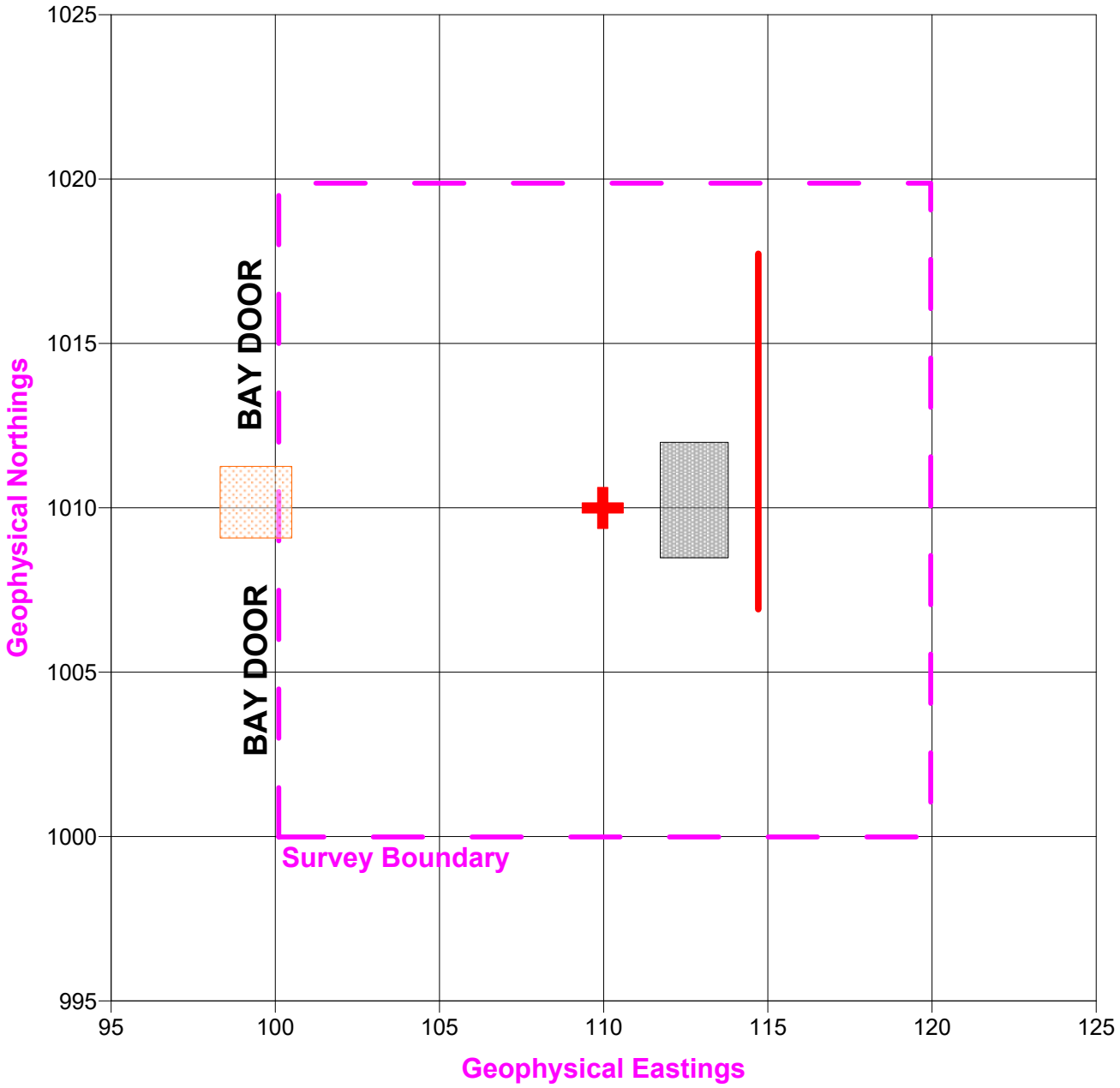
0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-3



LEGEND

- DRILL LOCATION
- PATCH
- WALL
- PIPELINE/CONDUIT

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

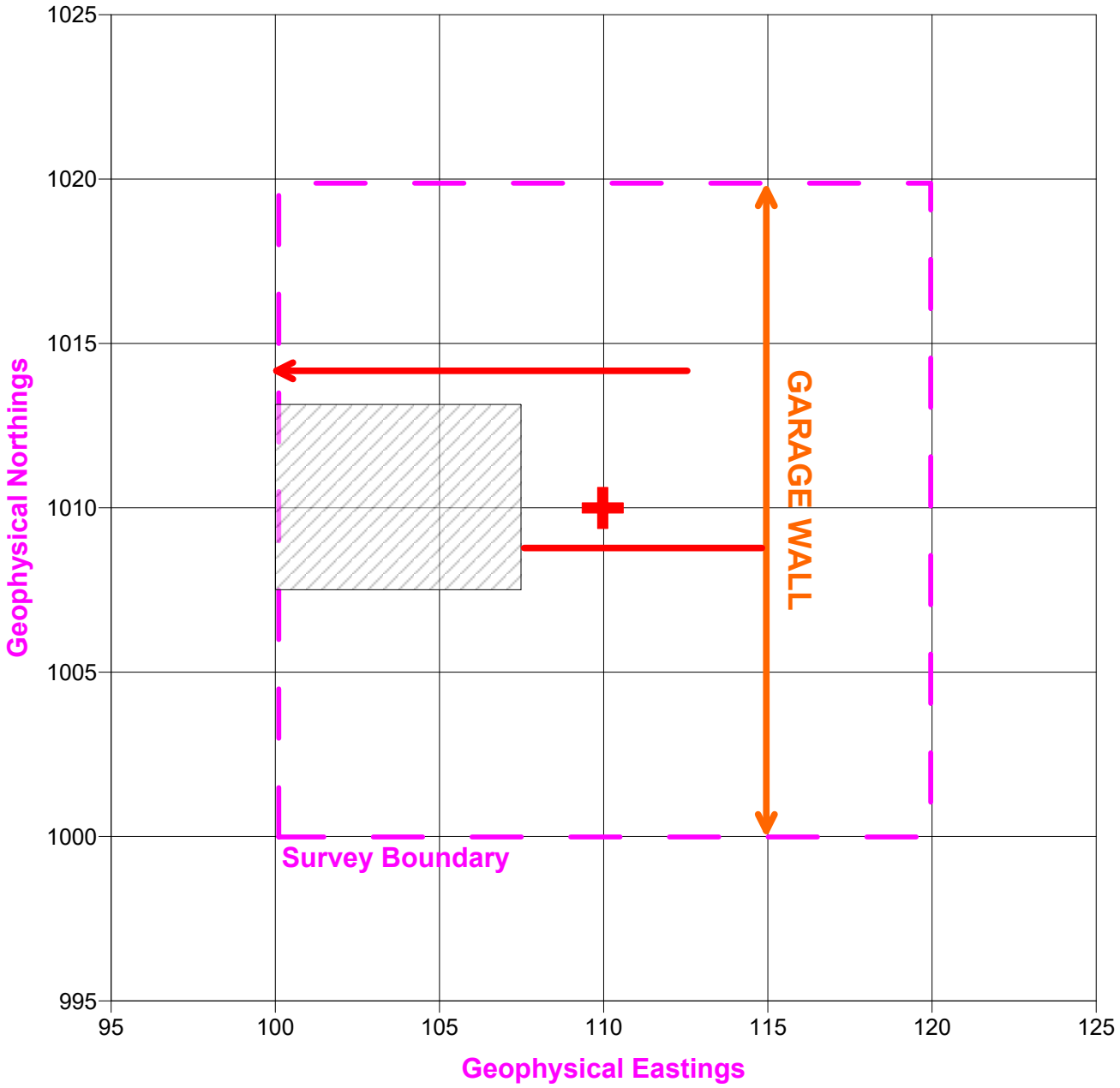
0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-4



LEGEND

- DRILL LOCATION
- TIRE RACK
- PIPELINE/CONDUIT

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

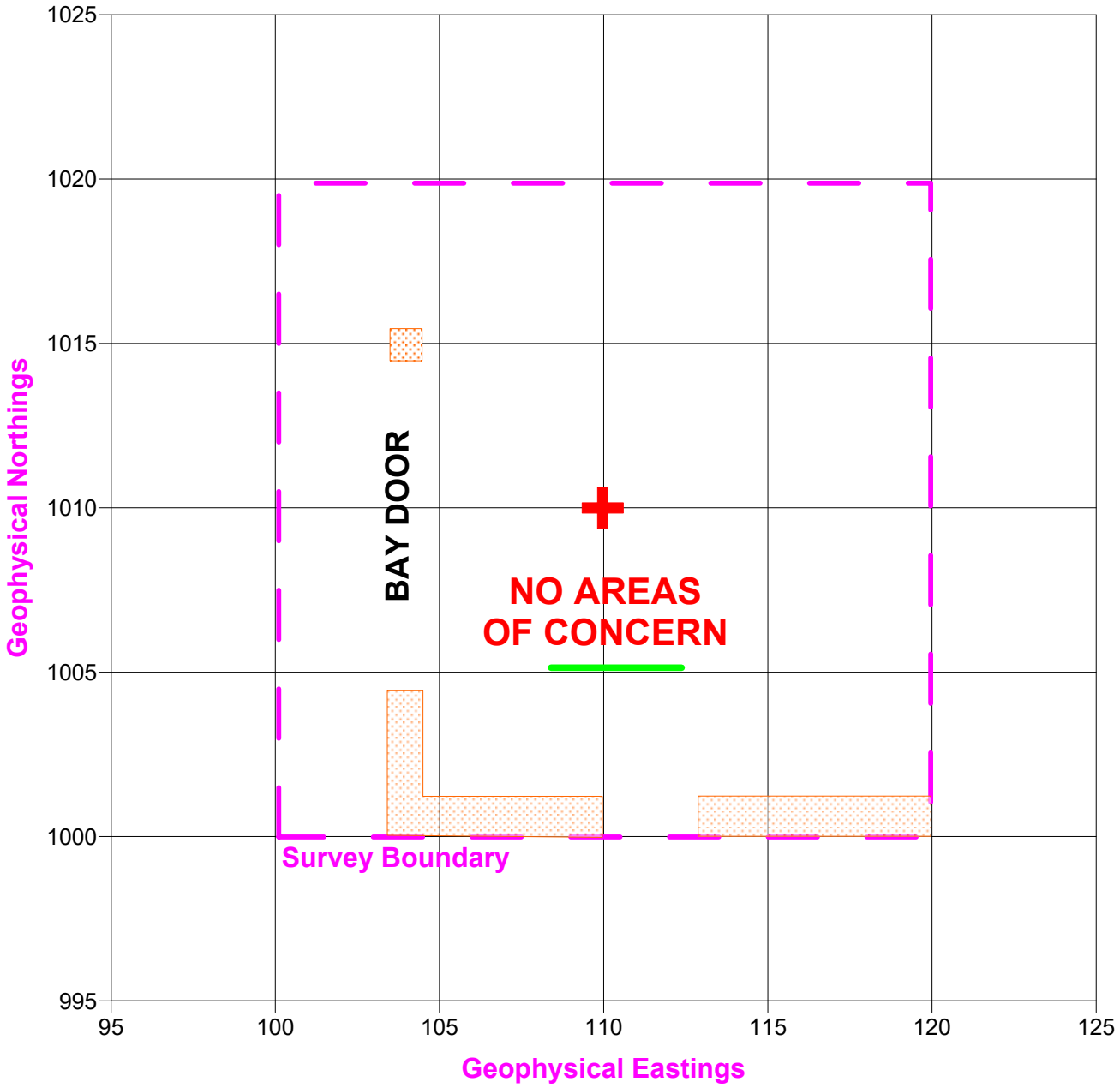
0 5 10

OCT. 2017

EMC
EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-5



LEGEND

- DRILL LOCATION
- WALL
- HAND RAIL

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

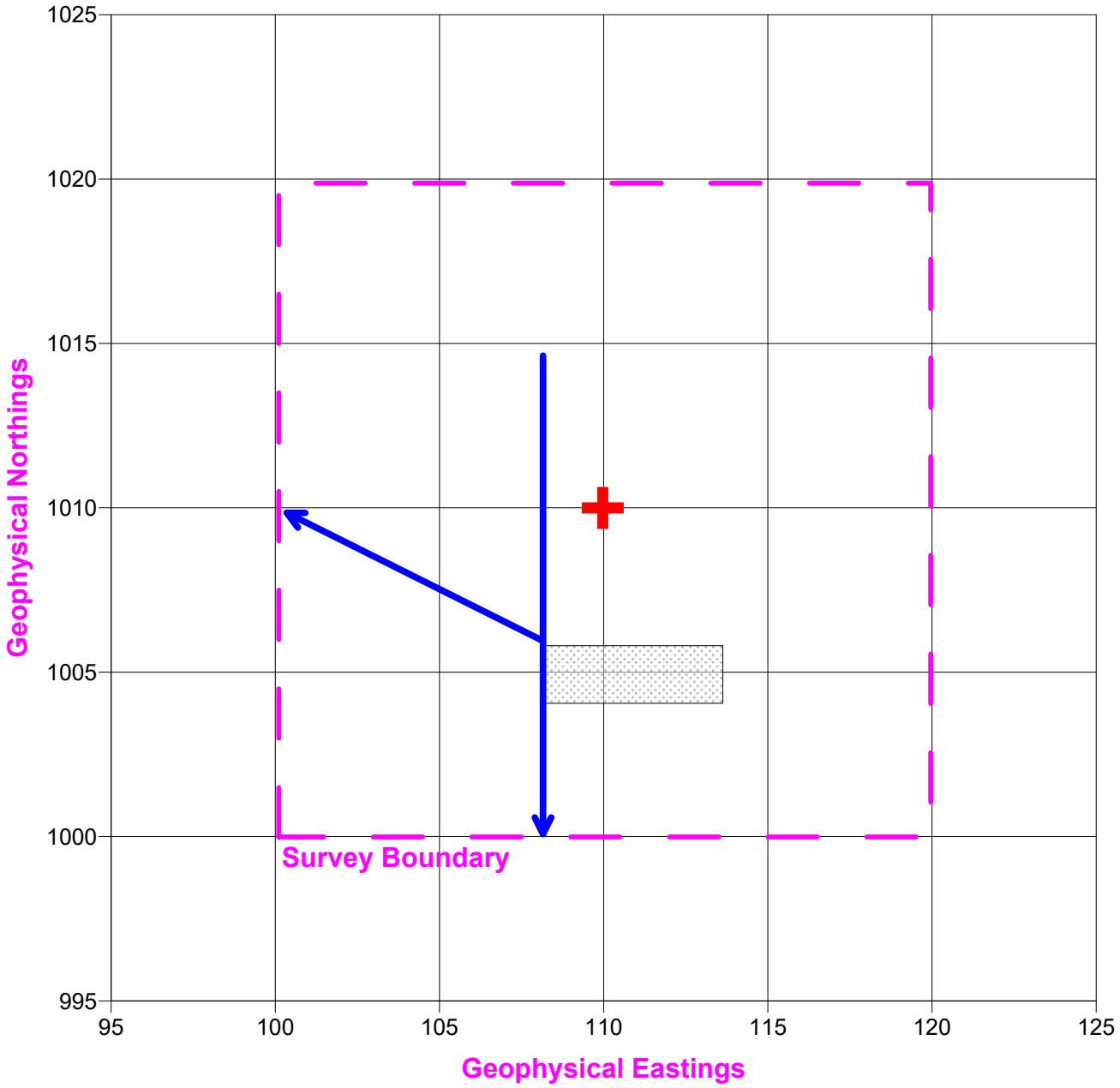
0 5 10

OCT. 2017

EMC
EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-6



LEGEND

- DRILL LOCATION
- CAR LIFT
- DRAIN LINE

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

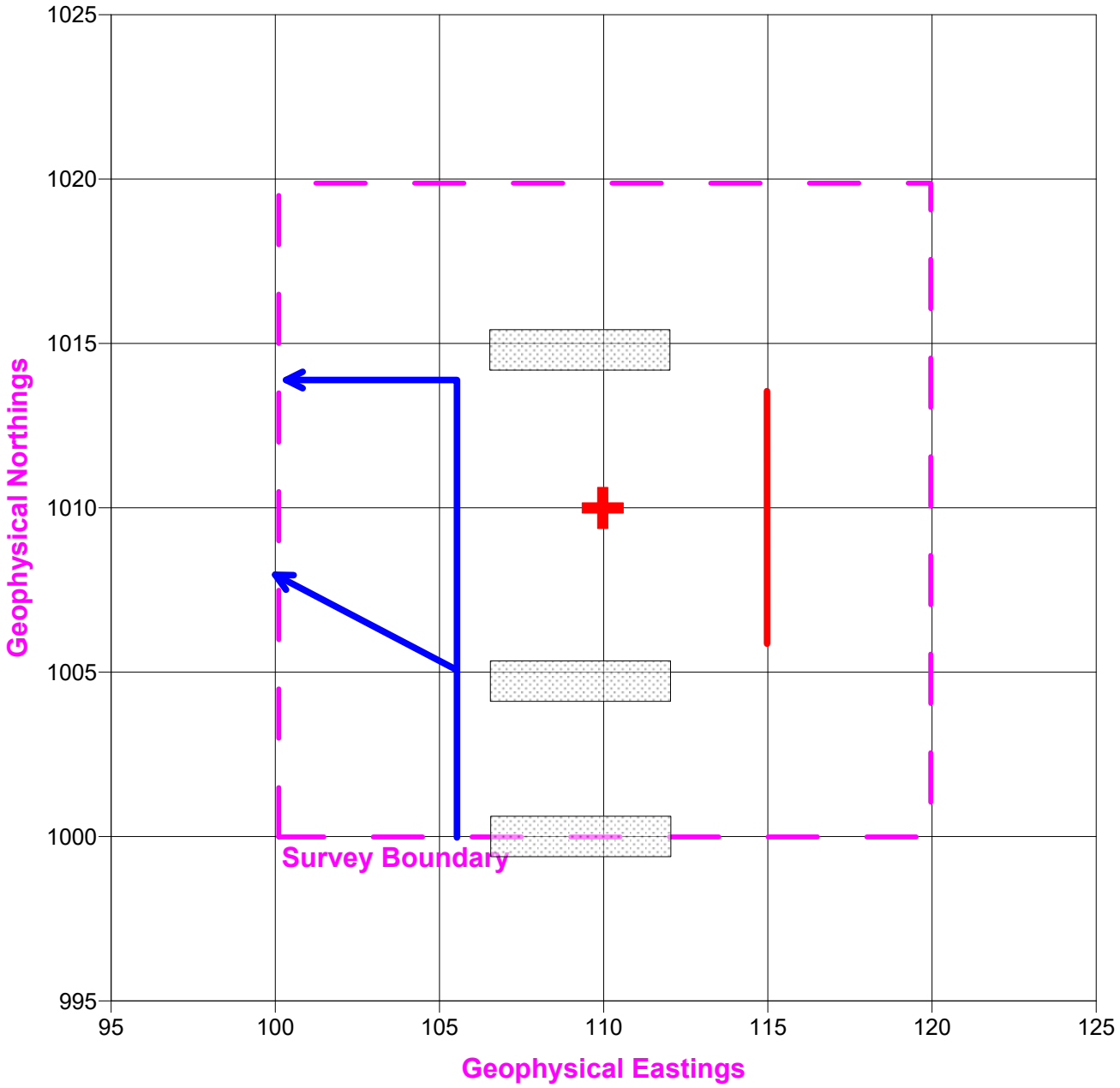
0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

Location # SB-7



LEGEND

- DRILL LOCATION
- CAR LIFT
- DRAIN LINE
- PIPELINE/CONDUIT

WESTON SOLUTIONS

Geophysical Investigation Survey

1519 FANNIN STREET
HOUSTON, TEXAS

INTERPRETIVE MAP

ALL FOUND PIPELINES, UTILITIES & ANOMALIES

Scale 1" = 5'

0 5 10

OCT. 2017

EMC EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

28230 Sweet Oak Lane
Katy, Texas 77494
281-829-5700

EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

GEONICS EM-61
Electromagnetic Meter

The EM-61 is a time domain electromagnetic device that is used to find buried ferrous objects by inducing electric current beneath the surface and measuring the voltage response. The EM-61 can be used in a variety of soils and surfaces because it transmits 150 EM pulses per second, and measures target response during the off-time to minimize the response of the surrounding medium. A dual transmitter system allows for target depth estimation, while eliminating undesirable responses due to surface clutter.

Its higher power and larger coils allow for larger and deeper targets than other electromagnetic systems. The EM-61 can be applied successfully to find underground storage tanks, buried drums, pipelines, hazardous metal waste, and unexploded ordnance. The high resolution of this instrument combined with its ability to eliminate noise make the EM-61 an ideal tool for locating ferrous objects.

EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

GEOPHYSICAL SURVEY SYSTEMS INC. — SIR SYSTEM 3000

Ground Penetrating Radar

The Geophysical Survey Systems Inc., Subsurface Interface Radar System SIR-3000 (SIR-3000) instrument utilizes impulse radar technology to obtain a continuous, high-resolution profile of the subsurface. The radar signal transmitted into the subsurface is produced by electrically discharging a pulse of electromagnetic energy from a special antenna. The transmitted pulse travels through the subsurface until it reaches a soil interface or an embedded object. Then, depending on the electrical characteristics of the interface or object, a portion of the transmitted pulse is reflected back to the surface where it is picked up by the receiver section of the antenna. The received signal is processed and a real-time replica of the information is displayed. Depth of subsurface penetration is directly dependent upon the conductivity of the soil.

Several types of antennas are available for use with the SIR Ground Penetrating Radar (GPR) system. The defining characteristic of these antennas is their operating frequency. The higher the antenna's operating frequency, the smaller the antenna's size and pulse loop, the greater the data resolution, and the shallower the depth-of-penetration. An 80 MHz antenna is the practical minimum frequency while 2500 MHz is the practical maximum.

For more detailed information on all of our services, please visit our website at:
www.emcgeophysics.com

EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

Trimble Pro-XH GPS Receiver/Trimble Zephyr Dual Frequency Antenna

Fully integrated Bluetooth GPS receiver with H-Star technology for sub-foot accuracy

The GPS Pathfinder® ProXH™ receiver introduces a new era in GPS for GIS data collection. A GPS receiver, antenna, and all-day battery in one, the ProXH receiver delivers sub-foot (30 cm) accuracy with Trimble's revolutionary H-Star™ technology.

Bringing together advanced GPS receiver design and a powerful new post-processing engine, H-Star technology is in a class of its own. Working together with Trimble's TerraSync™ software, the Trimble® GPScorrect™ extension for ESRI ArcPad software, or an application built with the GPS Pathfinder Tools Software Development Kit (SDK), the ProXH receiver quickly and efficiently logs the data you need to achieve subfoot accuracy. Back in the office, the GPS Pathfinder Office software or the Trimble GPS Analyst™ extension for ESRI ArcGIS Desktop software guides you through the H-Star correction process and displays the accuracy you've achieved.

The all-in-one design of the ProXH receiver means it's simple to set up and easy to use. With a Bluetooth® wireless connection you're cable free between the ProXH receiver and a field computer.

Dual frequency GPS antenna for high-accuracy applications with the ProXH™ receiver

Trimble's Zephyr™ external L1/L2 GPS antenna contains advanced technology for extremely low multipath, outstanding low elevation satellite tracking, and sub-millimeter phase center accuracy. Use the Zephyr antenna together with a GeoXH handheld or GPS Pathfinder® ProXH receiver for high-accuracy mapping and GIS data collection.

Pro-XH Receiver

Zephyr Antenna

EARTH MEASUREMENT CORP.
Environmental & Engineering Geophysics

Radiodetection RD 8000/RD 8000 Transmitter

Locating Tool

The RD8000 locating system is a newly designed utility pipe, cable, and line locating system. Featuring 18 frequencies, circuit breakers, and left-right arrows, Peak & Null mode, Compass, True depth as well as a complete digital platform the RD8000 is versatile, reliable and durable.

The Radiodetection RD8000 receiver is designed to locate buried pipes, lines, and cables. Several frequencies and modes of operation are available to suit specific locating needs. Available passive modes include: 50Hz, and 60 Hz power, radio, and 31 kHz CATV. Available active modes include ELF (98/128) Hz, 577 Hz, 512 Hz, 640 Hz, 870 Hz ,940 Hz, 8 kHz, 33 kHz, 65 kHz, 83 kHz, 131 kHz and 200 kHz for use with Radiodetection transmitters.

The Radiodetection RD8000 transmitter is designed to place signals on target lines. It can be configured to send 512 Hz, 640 Hz, 8 kHz, 33 kHz. It places a signal on the line through a direct connection, induction clamping, or broadcast modes.

For more detailed information on all of our services, please visit our website at:
www.emcgeophysics.com


conduit
mw3
overflow pipeline
pipeline
mw2
conduit for pipe
mw1
conduit
pipeline conduit
pipeline conduit
Fourth St
Google earth
© 2017 Google
N
3293710
3293700
3293690
3293680
3293670
3293660
3293650
3293640
3293630
3293620
3293610
3293600
271030
271040
271050
271060
271070
271080
271090
271100
271110
271120
271130
271140
271150
271160
271170
271180
271190
271200
271210

ATTACHMENT C
FIELD NOTES, BORING LOGS, AND STATE WELL REPORTS

DRA Block 333

Rite in the Rain®

ALL-WEATHER

JOURNAL

№ 391FX

10/2017 -

DRA Block 333 Phase II - Survey

2

15533.002.001.0002 10/11/17

0930 Michael Kanuck (MK) with Weston departs for work site. MK

0950 MK arrives at work site. MK

1000 Dawn Denham with Weston and survey crew from EMC arrive on site. EMC crew begins clearing drilling locations and setting up for geophysical survey of site. MK

1015 David Draybuck with Envirotech arrives on site. MK and Dawn Denham begin reviewing drilling locations with him. MK

1115 David Draybuck departs from site. MK

1300 Dawn Denham departs from site. MK

1545 MK departs from site. EMC is finishing packing up for the day and will return tomorrow to complete survey. MK

End of Day

10/23/17 DRA Block 333 Phase II - Drilling RO, MK

3

0700 Rachel Omerta (RO) and Mike Kanuck (MK) - Weston arrive onsite and hold tailgate H+S meeting/review and sign HASP. Topics include: route to hospital, COCs, drilling safety, PPE, traffic RO

0715 Dean with Frankie's Concrete Drilling arrives on site. Begins coring concrete for soil borings RO

0750 Jorge and Ricardo with Envirotech Drilling arrive on site. Review SOW and H+S topics.

0800 RO bump test Minirae PID (REW 33771) with 100 ppm isobutylene. VOC = 101.5 ppmv

0805 MK lead tailgate H+S meeting with Envirotech and Weston. Topics same as above.

0815 Envirotech set up on SB-2. Location will need to be moved slightly to avoid underground object

0825 Envirotech set up on SB-3. Begin soil boring.

0845 complete SB-3 to ~~10~~ 12' bgs. Move to SB-1

0850 Begin SB-1 with geoprobe RO

0910 Complete SB-1 to 10' bgs. Move to SB-2.

0915 Begin SB-2 with geoprobe RO

Retrolog: 0900 RO and MK collect SB-3-6-8 soil sample for BTEX (Method 8035), TPH 1005, TPH 1006 (on hold) and PAHs/PCBs (Method 8270)

Rite in the Rain

on hold. BTEX/TPH/v. moisture samples sent to A+B Laboratories, PAHs/PCBs samples sent to DHL Analytical. All samples immediately placed in laboratory supplied sample cooler on ice. A+B Laboratories samples placed in coolers with laboratory prepared trip blank. All subsequent samples will follow same procedure unless otherwise noted.

0920 RD collect SB-3-8-10 soil sample for BTEX, TPH 1005/1006, PAHs, PCBs, v. moisture.

0950 RD collect SB-1-3-5 soil sample for BTEX, TPH 1005/1006, PAHs, PCBs, v. moisture.

1005 RD collect SB-1-8-10 soil sample for BTEX, TPH 1005/1006, PAHs, PCBs, v. moisture ——

1030 Envirotech begin hand augering SB-4 (storage area)

1030 RD collect SB-2-3.5 soil sample for ~~BTEX/TPH~~ to BTEX ~~suite~~, TPH 1005/1006, PAHs, PCBs, v. moisture

1045 RD collect SB-2-8-10 soil sample for ~~VOC~~ to BTEX, TPH 1005/1006, PAHs, PCBs, v. moisture ——

1145 RD collect SB-4-4-5 soil sample for VOCs (full suite), TPH 1005/1006, PCBs, PAHs, v. moisture

1200 RD collect SB-4-9-10 soil sample for VOCs (full suite), TPH 1005/1006, PCBs, PAHs, v. moisture.

1215 Envirotech begin geoprobing SB-6 —— RD

1240 RD collect SB-6-3-5 soil sample for ~~VOCs~~ BTEX, ——

TPH 1005/1006, PCBs, PAHs, v. moisture ——

1300 RD collect SB-6-8-10 soil sample for BTEX, TPH 1005/1006, PCBs, PAHs, v. moisture ——

1315 Envirotech begin geoprobing SB-7 ——

1350 RD collect SB-7-3-5 soil sample for BTEX, TPH 1005/1006, PCBs, PAHs, v. moisture ——

1400 RD collect SB-7-8-10 soil sample for BTEX, TPH 1005/1006, PCBs, PAHs, v. moisture ——

Retrolog 1340 Envirotech begin geoprobing MW-1

1420 Envirotech drill rig needs new battery in order to continue drilling. Envirotech offsite to retrieve new battery. ——

1540 Envirotech back on site w/ new battery. Geoprobe is now operational. Resume MW-1 ——

Retrolog: 1400 Also collected duplicate DUP-1 for BTEX, TPH 1005/1006, PAHs, PCBs, v. moisture from SB-7-8-10 Time on dup: 0000 ——

1545 RD and MK collect MW-1-3-5 soil sample for VOCs (full suite), TPH 1005, PAHs, PCBs, v. moisture.

1605 RD and MK collect MW-1-34-36 soil sample for VOCs (full suite), TPH 1005, PAHs, PCBs, v. moisture.

1615 Due to time constraints with laboratory drop off of samples, will finish probing/drilling MW-1 tomorrow morning. RD and MK pack more ice on samples. Envirotech perform clean-up

10/23/17 (continued) DEA Block 333 Phase II - Drilling RO, MK

and secure MW-1 overnight. ——— to

1620 MK offsite to deliver soil samples to A+B.

1640 RO and Envirotech offsite. IDW soil drum staged near dumpster on NE corner of property

1710 RO arrive at FedEx to ship DHL samples ——— to

1720 RO depart FedEx for RES ——— to

1730 RO arrive at RES to pick up additional supplies

1735 RO depart RES. ——— to

Note: Envirotech encountered refusal at ~2' bgs (SB-5). No soil samples were collected and no soil cores were logged from SB-5. ——— to

Rachel Omerza
End of log day
10/23/17

10/24/17 DEA Block 333 Phase II - Drilling RO, MK

0700 Rachel Omerza (RO) and Mike Kanarek (MK) - Weston arrive onsite. Meet with Envirotech to discuss SOW. Complete MW-1 and move on to MW-2, MK hold tailgate H+S meeting. Topics include: COCs, drilling safety, traffic, proper lifting techniques, heat stress, route to hospital, PPE. ——— to

0740 Continue MW-1. ——— to

0950 Envirotech complete drilling of MW-1 to 44' bgs.

1012 Envirotech begin drilling MW-2 ——— to

1115 Envirotech finishes pouring sand pack and 4' bentonite plug in MW-1 ——— to

1200 Envirotech finish surface completion at MW-1

1205 Envirotech complete drilling MW-2 to 45' bgs.

Retro log: 1200 RO collect ~~SP~~ MW-2-10-12.5 soil sample for TPH 1005, VOCs (method 5035) - full suite, metals (method 6020) and PAHs / PCBs (method 8270), and % moisture. TPH, VOCs, metals, % moisture sent to A+B Laboratories. PAHs / PCBs sent to DHL Analytical (on hold). All samples immediately placed on ice in laboratory supplied sample coolers. A+B cooler contains Trip Blank-3 for VOC analysis. All subsequent samples will follow same procedure.

1215 RO and MK collect MW-2-33-35 soil sample for VOCs, Metals, TPH 1005, % moisture, PAHs, and PCBs ——— to

continued 10/24/17 PRA Block 333 Phase II - Drilling RO, MK

1300 Envirotech and Weston break for lunch

1330 Back on-site. Envirotech pours sand pack and 4' of bentonite in MW-2.

1435 Envirotech begin drilling MW-4

1505 RO collect field blank FB-1 for VOCs adjacent to MW-4 using Refresh brand distilled water. Wind NW @ ~10 mph

1600 RO and MK collect MW-4-21-25 soil sample for VOCs, TPH 1005, % moisture, metals, PAHs/PCBs

1605 Envirotech complete drilling MW-4 to 45' bgs

1615 RO and MK collect MW-4-25-27 soil sample for VOCs, TPH 1005, % moisture, metals, PAHs/PCBs. Also collect duplicate DUP-2 for same as above with time of 0000

1620 Pack more ice on samples to ensure they are iced to 4°C

1635 MK depart site to deliver samples to APB lab.

Retrolog: 0730 RO bump test MiniRae PID (LPW 23771) w/ 100 ppm isobutylene. VOC= 109.7 ppm ✓

1700 Envirotech complete pouring sand pack and 4' of bentonite in MW-4. Will allow bentonite to hydrate in MW-2 and MW-4 and finish surface completions in the morning. Will leave 55-gallon drums to secure holes/ drums for visibility.

1735 Envirotech complete cleanup/ drum staging

1740 Envirotech and RO off site

continued 10/24/17 PRA Block 333 Phase II - Drilling RO, MK

1800 RO arrives at FedEx to ship samples to DHL. Affix custody seal to cooler and tape closed.

1825 RO depart FedEx

Marked End of Log day

10/24/17

10/25/17 DRA Block 333 Phase II - Drilling RO, MK

0700 Rachel Omeiza (RO) and Mike Kanarek (MK) arrive onsite. Envirotech onsite. Review SOW (complete MW-2 and MW-4 surface completions, drill/complete MW-3). MK lead tailgate H+S meetings. ——— RO

0715 Envirotech begins decontaminating augers from yesterday. ——— RO

0745 Envirotech grouts MW-2 and begins setting up on MW-3. ——— RO

0800 RO bump test Minirae PID (RFW 23771) with 100 ppm isobutylene. VOCs = 96.3 ppm

0805 Envirotech begins drilling MW-3 ——— RO

1005 Envirotech complete drilling MW-3 to 45' bgs

~~1015 RO collect field blank FB-2 for VOCs adjacent to MW-3. Light winds NW, 59°F, sunny.~~ RO

No field blank collected per Dawn Benham ——— RO

1030 RO and MK collect MW-3-2-4 soil sample for VOCs (full suite), TPH 1005, % moisture, PAHs/PCBs.

1045 RO and MK collect MW-3-8-9 soil sample for FOC and pH ——— RO

1100 RO and MK collect MW-3-20.5-25 soil sample for VOCs, TPH 1005, % moisture, PAHs/PCBs. ——— RO

Note: Samples immediately placed on ice in laboratory supplied sample cooler. VOCs, TPH, % moisture samples to ATB, placed in cooler with

10/25/17 DRA Block 333 Phase II - Drilling/Developing MK RO

laboratory prepared trip blank Trip Blank-4

Field team noted head space in laboratory prepared trip blank, did not open VOA. PAHs/PCBs, pH samples to DHL Analytical (PAHs/PCBs on hold.) FOC sample to Test America ——— RO

1115 Envirotech finished pouring sand pack and 4' bentonite plug ——— RO

1200 RO and MK collect IDW-soil composite sample from 13 IDW soil drums for TCLP metals, TPH 1005, VOCs, PAHs/PCBs.

1205 Envirotech finish surface completion at MW-2

1215 Ryan Goss (RG) - Weston arrive onsite ——— RO

1230 Envirotech finish surface completion at MW-4 ——— RO

1245 MK offsite to deliver samples to ATB and Test America. Break for lunch

1310 RO calibrate Horiba U52 (RFW 23827) water quality meter with standard solution:

	Cal	Bump
pH:	4.00	4.08
Sp. cond:	4.49	4.49
DO:	8.42	8.31
Turb:	0.0	0.0
ORP:	240	240

1350 RO and MK begin developing MW-1 with new

DRA Block 333 Phase II - Drilling/Developing RO, RG

water spout pump. See development sheet.

1435 RO and RG call Dawn Denham - Weston (DD) to notify her that we have removed 55 gallons (~1½ well volumes) from MW-1 and turbidity is still high ——— RO

1510 DD calls back and says that MW-1 is sufficiently developed due to quantity of water removed. RO and RG begin setting up on MW-2 ——— RO

1530 RO and RG begin developing MW-2 with new water spout pump. See development sheet. Note: decontaminated water level meter between wells.

1623 RO and RG have removed 55 gallons of water from MW-2 (~1½ well volumes). ~~Considered~~ well is developed. Notify DD ——— RO

1649 move 2 new IDW water drums to drum staging area in NE corner of property (dumpster)

Retro log: 1415 Envirotech completes surface completion for MW-3 and finishes cleanup. Departs site.

1505 RO and RG depart site ——— RO

1735 RO arrive at FedEX. Pack more ice on samples. Affix custody seal and tape cooler closed. Ship samples to DHL Analytical (KCB's/PAH's)

1600 RO depart FedEx. ——— RO

Rachel Omerza

End of log day 10/25/17

DRA Block 333 Phase II - Developing RO, RG

0710 Rachel Omerza (RO) and Ryan Goss (RG) - Weston arrive onsite. RO lead tailgate H&S meeting. Topics include: COCs, traffic, proper lifting techniques, route to the hospital, PPE, heat stress ——— RO

0725 RO and RG open all wells and begin level survey, see survey datasheet.

0810 RO and RG complete level survey. Begin setting up on MW-4 for development.

0825 RO calibrate Horiba U52 water quality meter (SN# 23827) with standard solutions:

	Cal	Time
pH:	4.00	4.01
Sp. Cond:	4.50 mS/cm	4.51 mS/cm
DO:	9.84 mg/L / 101.2%	9.34 mg/L / 97.1%
Turb:	0.0 NTU	0.0 NTU
ORP:	240 mV	241 mV

0845 RO and RG begin developing MW-4 with new water spout and decontaminated water level meter ——— RO

0931 RO and RG complete developing of MW-4. Removed 55 gallons (~1½ well volumes). Temp, Sp. cond, pH stabilized. Turbidity out of range. ——— RO

0957 RO call Dawn Denham (DD) - Weston to

 continued 10/26/17 DRA Block 333 Phase II - Developing RO, RG

update her on MW-4 development — RO

1005 Move drum to drum staging area.

1015 Depart site for break to allow 24 hours after bentonite poured in MW-3 — RO

1040 Back on site and begin setting up on MW-3

1115 Begin developing MW-3. See development sheet for details. ~~New pump, decanted will meet~~

1220 Finish developing MW-3. Conductivity, pH, Temp. stabilized. Turb out of range.

1245 Final decontamination on all non-disposable equipment. Move drum to drum staging area in NE corner (behind dumpsters)

1255 RO call Dawn Denham to notify her that developing/surveying has been completed on all 4 monitor wells. Depart site for RES.

1325 RO and RG arrive at RES. Unload equipment. load up equipment for sampling tomorrow.

1400 RO and RG depart warehouse. RG to ATB Laboratory to pick up additional sample kits for tomorrow. RO to Kroger to purchase field supplies. — RO

Rachel Conroy
End of log day
10/26/17

10/27/17 DRA Block 333 Phase II - GW sampling RO, RG

0700 RO and RG arrive onsite. RO lead tailgate health and safety meeting. Same topics as yesterday. See page 13 for details — RO

0710 RG set up decontamination station by labeling 3 new buckets ① wash, ② rinse 1, ③ rinse 2 and adding ~2.5 gallons distilled H_2O to each and liquinox to wash. Predecontaminate oil/water interface probe to ~55', will decon all nondisposable equipment between each well and use new tubing per well — RO

0725 RG calibrate Horiba U52 water quality meter (YSI FW 23827) with standard solutions:

	Cal	Bump
pH:	4.00	3.98
Sp. cond:	4.49 mS/cm	4.51 mS/cm
DO:	9.00 mg/L / 103.7%	8.63 mg/L / 100.1%
Turb:	0.0 NTU	0.0 NTU
ORP:	240 mV	240 mV

0728 RG calibrate Hanna turbidity meter (YSI FW 23825) with 0.1, 15.0, 100, 750 NTU standards ✓ Bump test with same standards = 0.12 NTU, 14.9 NTU, 100 NTU, 748 NTU — RO

0735 RO open all MWs to allow WL to equilibrate

DEA Block 333 - Phase II GW Sampling RO, Rb

Time	Well ID	DTW (BTOC)	Comments
0758	MW-1	21.89'	OK
0800	MW-2	21.46'	OK
0804	MW-3	20.97'	OK
0807	MW-4	20.74'	OK

0825 Place laboratory prepared trip blank [Trip Blank-5] in A+B sample cooler for VOCs. Note head space in trip blank, VOA not opened in field —— RO

0830 RO and Rb begin micropurging MW-1 —— RO

0901 RO and Rb collect [MW-1] groundwater sample for VOCs (8260B), PAHs/PCBs (8270), TPH (8015), lead (6020). VOCs and lead submitted to A+B laboratory. One unfiltered lead sample and one 10 micron field filtered lead sample submitted (filtered on hold). Submit TPH and PCBs/PAHs to PHL Analytical with PAHs/PCBs on hold. Immediately place samples on ice in laboratory supplied sample cooler and store at 4°C. All subsequent samples will follow same procedure unless otherwise noted —— RO

0943 RO and Rb begin micropurging MW-2 —— RO

1012 RO and Rb collect [MW-2] groundwater sample for VOCs, TPH, PAHs/PCBs, and lead —— RO

1129 RO and Rb begin micropurging MW-3 —— RO

1159 RO and Rb collect [MW-3] groundwater sample for VOCs, TPH, PAHs, PCBs, and lead —— RO

DEA Block 333 Phase II - GW Sampling RO, Rb

1234 RO and Rb begin micropurging MW-4 —— RO

1304 RO and Rb collect [MW-4] groundwater sample for VOCs, TPH, PAHs/PCBs, lead. —— RO

Note: A+B Laboratories provided some 250 mL white poly bottles and some 500 mL white poly bottles for lead analysis. RO calls A+B and speaks to Amanda. Amanda confirms that A+B ran out of 250 mL poly, so we can fill 500 mL poly half-way for metals.

Also collect duplicate [DUP-3] from MW-4 at time of 1234 —— RO

1400 Perform final decontamination on all non-disposable equipment. Collect equipment blank [EB-1] for VOCs, TPH, PCBs/PAHs, lead off of oil-water interface probe using Ozarka brand distilled water —— RO

1420 Dispose of DW water from decon and purge. Final drum inventory: 13 IDW soil and 5 IDW water staged by dumpsters in NE corner of property —— RO

1425 RO and Rb depart site for RES —— RO

1450 Arrive at RES. Unload equipment. Pack more ice on samples, prepare PHL coolers for FedEx shipment w/ custody seals —— RO

1515 Depart RES. RO to FedEx and Rb to A+B —— RO

10/27/17 Rachel Omenya End of long day fell in the rain.

WELL DEVELOPMENT LOG

MONITORING WELL ID: MW-1

PROJECT: 15533.002.001.0002

PROJECT NO: DRA Block 333 Phase II

SITE LOCATION: DRA, 1519 Fannin

DATE: 10/25/17

SAMPLING PERSONNEL: R. Gross, R. Omerza

DEVELOPMENT METHOD: over pumping

WELL INFORMATION

Well Diameter:	2	IN.	Conversion Factors:
Depth to Groundwater (DTW):	21.93	FT.	Well Volume (1-in): Hx0.04 gal/ft
Total Built Depth of Monitoring Well (From Well Log):	44	FT.	Well Volume (2-in): Hx0.17 gal/ft
Total Measured Depth of Monitoring Well (TD):	42.87	FT.	Well Volume (4-in): Hx0.66 gal/ft
Sediment Column:		FT.	Well Volume (6-in): Hx1.5 gal/ft
Water Column in Well (H=TD-DTW):		FT.	
1 Well Volume	3.5	gal	
0.5 Well Volumes		gal	Final TD: 43.67
3 Well Volumes	10.5	gal	

MONITORING PARAMETERS

Well Volumes	Time	Depth to Water	Volume Purged	Flow Rate	Clarity	pH	Specific Conductance	Temp.	Turb
	Hr : Min	Feet	~~ml~~ gal	~~mL/min~~	fines	standard units	mS/cm	°F	NTU
	1351			4/min	opaque /cloudy /clear	±0.2 GOAL - change ±0.2 for three successive readings	± 3% GOAL - change ± 3% for three successive readings	± 0.5 °C GOAL - change is ± 0.5 °C for three successive readings	<10
1 Initial Reading:	1358	25.44	3.5	4.0 lpm	opaque	6.34	1.51	25.87	>1000
2	1355	25.90	7.0		opaque	6.32	1.48	~~25.46~~ 25.91	>1000
3	1401	25.74	10.5		opaque	6.31	1.49	25.85	>1000
4	1404	25.72	14.0		0	6.27	1.48	25.86	>1000
7	1412	26.80	24.5		0	6.37	1.49	25.71	>1000
10	1417	26.24	35.0		0/4	6.34	1.50	25.81	>1000
13	1425	25.99	45.5		Cloudy	6.40	1.48	25.70	452
~14	1434	23.55	~~56.0~~ 55.0	↓	Cloudy	6.41	1.52	25.67	778

FINAL Purge Flow Rate: 4 lpm ~~gal per min~~

TOTAL Volume Purged: 55 gallons

WELL DEVELOPMENT LOG

MONITORING WELL ID: MW-2
PROJECT: DRA Block 333 Phase II
PROJECT NO: 15533.002.001.0002
SITE LOCATION: 1519 Fannin St. Houston, TX
DATE: 10/25/17
SAMPLING PERSONNEL: R. Goss, R. Omerza
DEVELOPMENT METHOD: Overpumping

WELL INFORMATION

Well Diameter:	2	IN.	**Conversion Factors:**
Depth to Groundwater (DTW):	21.46	FT.	Well Volume (1-in): Hx0.04 gal/ft
Total Built Depth of Monitoring Well (From Well Log):	45	FT.	Well Volume (2-in): Hx0.17 gal/ft
Total Measured Depth of Monitoring Well (TD):	42.18	FT.	Well Volume (4-in): Hx0.66 gal/ft
Sediment Column:	~~45~~ N.M	FT.	Well Volume (6-in): Hx1.5 gal/ft
Water Column in Well (H=TD-DTW):	20.78	FT.	
1 Well Volume	~3.4	gal	
0.5 Well Volumes		gal	Final TD: 44.64' btoc
3 Well Volumes		gal	

MONITORING PARAMETERS

Well Volumes	Time	Depth to Water	Volume Purged	Flow Rate	Clarity	pH	Specific Conductance	Temp.	Turb NTU <10
	Hr : Min	Feet	~~mL~~ gal	mL/min	fines	standard units	mS/cm	°F	
						±0.2	± 3%	± 0.5 °C	
		N.M		~4000mL/min (4 gpm)	opaque /cloudy /clear	GOAL - change ±0.2 for three successive readings	GOAL - change ± 3% for three successive readings	GOAL - change is ± 0.5 °C for three successive readings	
1 Initial Reading:	1532	~~35.07~~	3.5	~~25.64~~	opaque	6.62	0.840	25.77	71000
2	1535	36.35	7.0	~~26.42~~	opaque	6.62	0.908	26.42	71000
3	1539	38.06	10.5	4 gpm	opaque	6.49	1.07	26.31	71000
6	1546	40.28	21.0	4 gpm	cloudy	6.41	1.21	26.24	71000
8	1554	37.74	28.0	3.5 gpm	cloudy	6.36	1.24	26.25	71000
10	1559	34.74	35.0	3.5 gpm	cloudy	6.43	1.20	26.18	71000
12	1611	35.11	42.0	3.5 gpm	cloudy	6.37	1.24	26.52	71000
14	1618	35.30	49.0	3.5 gpm	cloudy	6.51	1.23	26.51	
~16	1623	35.41	~~50~~ 55	3.5 gpm	cloudy	6.45	1.25	26.45	

FINAL Purge Flow Rate 3.5 gpm ~~gal per min~~

TOTAL Volume Purged 55 gallons

WELL DEVELOPMENT LOG

MONITORING WELL ID: MW-3
PROJECT: PRA Block 333 Phase
PROJECT NO: 15533.002.001.0002
SITE LOCATION: 1519 Fannin, Houston, TX
DATE: 10/26/17
SAMPLING PERSONNEL: R. Omerza, R. Voss
DEVELOPMENT METHOD: Overpumping

WELL INFORMATION

Well Diameter:	2 IN.	Conversion Factors:
Depth to Groundwater (DTW):	20.96 FT.	Well Volume (1-in): Hx0.04 gal/ft
Total Built Depth of Monitoring Well (From Well Log):	45 FT.	Well Volume (2-in): Hx0.17 gal/ft
Total Measured Depth of Monitoring Well (TD):	42.36 FT.	Well Volume (4-in): Hx0.66 gal/ft
Sediment Column:	FT.	Well Volume (6-in): Hx1.5 gal/ft
Water Column in Well (H=TD-DTW):	21.40 FT.	
1 Well Volume	3.6 gal	
0.5 Well Volumes	gal	
3 Well Volumes	gal	

44.55' bgs
Final TD: ~~44.2~~

MONITORING PARAMETERS

Well Volumes	Time	Depth to Water	Volume Purged	Flow Rate	Clarity	pH	Specific Conductance	Temp.	Turb (NTU)
	Hr : Min	Feet	~~mL~~ gal	~~mL~~/min	fines	standard units	mS/cm	°F	
	1115 - start pumping				opaque /cloudy /clear	±0.2 GOAL - change ±0.2 for three successive readings	± 3% GOAL - change ± 3% for three successive readings	± 0.5 °C GOAL - change is ± 0.5 °C for three successive readings	
1 Initial Reading:	1120	26.83	~3.6	4	opaque	7.13	0.993	26.34	>1000
2	1123	27.52	~7.2	4	opaque	7.15	1.09	26.18	>1000
3	1126	26.25	~10.8	4	opaque	6.97	1.11	26.47	>1000
6	1139	26.90	~21.6	4	opaque	6.92	1.12	26.57	>1000
9	1148	25.86	~32.4	4	opaque	6.92	1.04	26.46	>1000
11	1157	24.92	~40	4	opaque	7.01	1.02	26.53	>1000
13	1206	24.57	~47	3	opaque	7.00	1.02	26.54	>1000
14	1205	24.71	~50	3	opaque	7.15	1.04	26.53	>1000
15	1218	24.71	~53	3	opaque	7.18	1.01	26.55	>1000
16	1220	24.71	~55	3	opaque	7.22	1.01	26.53	>1000

FINAL Purge Flow Rate: 3 Lpm ~~gal per min~~

TOTAL Volume Purged: 55 gallons

WELL DEVELOPMENT LOG

MONITORING WELL ID: MW-4
PROJECT: DRA Block 333 Phase II
PROJECT NO: 15533.002.001.0002
SITE LOCATION: 1519 Fannin, Houston, TX
DATE: 10/26/17
SAMPLING PERSONNEL: R. Goss, R. Omerza
DEVELOPMENT METHOD: Overpumping

WELL INFORMATION

Well Diameter:	2 IN.	**Conversion Factors:**
Depth to Groundwater (DTW):	20.73 FT.	Well Volume (1-in): Hx0.04 gal/ft
Total Built Depth of Monitoring Well (From Well Log):	45 ~~43.04~~ FT.	Well Volume (2-in): Hx0.17 gal/ft
Total Measured Depth of Monitoring Well (TD):	43.04 FT.	Well Volume (4-in): Hx0.66 gal/ft
Sediment Column:	FT.	Well Volume (6-in): Hx1.5 gal/ft
Water Column in Well (H=TD-DTW):	22.31 FT.	
1 Well Volume	3.8 gal	Final TD: 44.66' bgs
0.5 Well Volumes	gal	
3 Well Volumes	gal	

MONITORING PARAMETERS

Well Volumes	Time	Depth to Water	Volume Purged	Flow Rate	Clarity	pH	Specific Conductance	Temp.	Turbidity
	Hr : Min	Feet	mL	~~mL/min~~	fines	standard units	mS/cm	°F	NTU
						±0.2	± 3%	± 0.5 °C	<10
	0845 - start pumping			4pm	opaque /cloudy /clear	GOAL - change ±0.2 for three successive readings	GOAL - change ± 3% for three successive readings	GOAL - change is ± 0.5 °C for three successive readings	
Initial Reading:									
1	0847	25.44	4	4 lpm	opaque	6.89	1.31	24.27	>1000
2	0850	25.52	8		opaque	6.81	1.29	25.10	>1000
3	0854	25.94	12		opaque	6.78	1.25	25.25	>1000
6	0904	25.85	24		opaque	6.77	1.15	25.30	>1000
9	0915	26.23	36		v. cloudy	6.79	1.13	25.28	>1000
12	0925	26.42	48		v. cloudy	6.76	1.09	25.23	>1000
13	0928	26.45	~~52~~ 52		v. cloudy	6.77	1.11	25.30	>1000
v14	0931	26.50	55	↓	v. cloudy	6.77	1.10	25.35	>1000

FINAL Purge Flow Rate 4 4pm ~~gal per min~~ L/D

TOTAL Volume Purged 55 gallons

GROUNDWATER SAMPLING FIELD DATA SHEET

SITE: DRA Block 333 Phase II **WELL ID:** MW-1

PROJECT NUMBER: 15533.002.001.0002 **DATE:** 10/27/17

Casing Diameter (2") 4"	Screened Interval (ft. BGS) 29-44	Flow Rate[1] See Below
Total Depth after sampling (ft. BTOC) 43.86 soft bottom	Purge Equipment Peristaltic Pump, new tubing, flow thru cell	Sample Equipment Same as purge, less flow thru cell
Static Water Level (ft. BTOC) before placing tubing in well 21.89 with tubing in well 21.85	Depth of Sample Intake (ft. BTOC) ~36.5	Analytical Equipment Horiba U52 water quality meter Hanna turbidity meter
Stick Up (Flush mount)	Time Purge Started 0830	

Time	Flow Rate LPM	Volume Purged Liters	pH (+/- 0.1)	Sp. Cond. ms/cm[c] (+/- 3%)	Temperature °C (+/- 1.0)	ORP mV (+/- 10)	DO mg/L (+/- 10%)	Turbidity NTU	Appearance Clear – C Opaque – O Cloudy – Cl Grey – G Tan – T	Depth to Water[1] ft. BTOC	Horiba Turb (NTU)
0835	0.1	0.5	6.53	1.52	24.58	-42	1.98	61.7	Cl	22.01	121
0840	0.15	1.25	6.51	1.52	25.13	-129	1.15	63.0	Cl	22.02	100
0845	0.15	2.0	6.47	1.52	25.25	-174	1.01	66.7	Cl	21.97	73.7
0850	0.2	3.0	6.45	1.52	25.26	-184	0.97	48.4	Cl	22.02	55.5
0855	0.2	4.0	6.45	1.52	25.27	-188	0.93	48.3	Cl	21.99	50.5
0900	0.2	5.0	6.44	1.52	25.30	-191	0.89	47.4	Cl	22.01	42.7
				End of log							

Sample ID: MW-1	Sample Date: 10/27/17	Sample Time: 0901
Comments: All above water quality parameters will be recorded, but only pH, temperature, conductivity, ORP, and DO to determine well stabilization. Collect sample and document if the parameters do not stabilize after 5 cycles. For lead samples, one unfiltered sample will be submitted and analyzed and one 10 micron field filtered sample will be submitted *on hold*.		
Level of PPE: D – Steel toed boots, safety glasses, nitrile gloves	**Analytical Parameters:** VOCs (8260B) and lead (6020) to A&B Laboratories. TPH (1005) and PAHs (8270) to DHL Analytical. +PCBs	
Disposition of Purged Water: Left on site in new 55-gallon steel drum in NE corner of property	**Sampler's Signature/Date** Kyan Jeffs 10/27/17	

[1]maximum draw down should be <1 ft. from initial static WL

(2" = 0.16)
(4" = 0.65)

WESTON SOLUTIONS

GROUNDWATER SAMPLING FIELD DATA SHEET

SITE: DRA Block 333 Phase II **WELL ID:** MW-2

PROJECT NUMBER: 15533.002.001.0002 **DATE:** 10/27/17

Casing Diameter (2") 4"	Screened Interval (ft. BGS) 30-45	Flow Rate[1] **See Below**
Total Depth after sampling (ft. BTOC) 44.64 Soft bottom	Purge Equipment Peristaltic Pump, new tubing, flow thru cell	Sample Equipment Same as purge, less flow thru cell
Static Water Level (ft. BTOC) before placing tubing in well 21.46 with tubing in well 21.47	Depth of Sample Intake (ft. BTOC) ~ 37.5'	Analytical Equipment Horiba U52 water quality meter Hanna turbidity meter
Stick Up (Flush mount)	Time Purge Started 0943	

Time	Flow Rate LPM	Volume Purged Liters	pH (+/- 0.1)	Sp. Cond. ms/cm[c] (+/- 3%)	Temperature °C (+/- 1.0)	ORP mV (+/- 10)	DO mg/L (+/- 10%)	Turbidity NTU	Appearance Clear – C Opaque – O Cloudy – Cl Grey – G Tan – T	Depth to Water[1] ft. BTOC	Hanna Turbidity (NTU)
0946	0.2	0.5	6.93	1.01	24.82	-90	2.61	18.7	C	21.78	22.8
0951	0.2	1.5	6.70	0.994	25.40	-223	0.94	13.0	C	21.78	7.6
0956	0.2	2.5	6.68	0.990	25.46	-259	0.80	9.97	C	21.78	0.0
1001	0.2	3.5	6.66	0.993	25.41	-274	0.79	7.38	C	21.78	0.0
1006	0.2	4.5	6.66	1.0	25.45	-284	0.78	6.41	C	21.78	0.0
1011	0.2	5.5	6.64	1.02	25.40	-303	0.77	6.44	C	21.79	0.0
					End of log						

Sample ID: MW-2	**Sample Date:** 10/27/17	**Sample Time:** 1012

Comments: All above water quality parameters will be recorded, but only pH, temperature, conductivity, ORP, and DO to determine well stabilization. Collect sample and document if the parameters do not stabilize after 5 cycles.
For lead samples, one unfiltered sample will be submitted and analyzed and one 10 micron field filtered sample will be submitted *on hold*.

Level of PPE: D – Steel toed boots, safety glasses, nitrile gloves	**Analytical Parameters:** VOCs (8260B) and lead (6020) to A&B Laboratories. TPH (1005) and PAHs (8270) to DHL Analytical. + PCBs
Disposition of Purged Water: Left on site in new 55-gallon steel drum in NE corner of property	**Sampler's Signature/Date** Rachel Dame 10/27/17

[1]maximum draw down should be <1 ft. from initial static WL

(2" = 0.16)
(4" = 0.65)

ORP did not stabilize w/in 5 readings.

WESTON SOLUTIONS

GROUNDWATER SAMPLING FIELD DATA SHEET

SITE: DRA Block 333 Phase II **WELL ID:** MW-3

PROJECT NUMBER: 15533.002.001.0002 **DATE:** 10/27/17

Casing Diameter 2" 4"	Screened Interval (ft. BGS) 30-45	Flow Rate[1] **See Below**
Total Depth after sampling (ft. BTOC) 44.61' soft bottom	Purge Equipment Peristaltic Pump, new tubing, flow thru cell	Sample Equipment Same as purge, less flow thru cell
Static Water Level (ft. BTOC) before placing tubing in well N.M. with tubing in well 21.03	Depth of Sample Intake (ft. BTOC) ~37.5	Analytical Equipment Horiba U52 water quality meter Hanna turbidity meter
Stick Up Flush mount	Time Purge Started 1129	

Time	Flow Rate LPM	Volume Purged Liters	pH (+/- 0.1)	Sp. Cond. ms/cm[c] (+/- 3%)	Temperature °C (+/- 1.0)	ORP mV (+/- 10)	DO mg/L (+/- 10%)	Turbidity NTU	Appearance Clear – C Opaque – O Cloudy – Cl Grey – G Tan – T	Depth to Water[1] ft. BTOC	Horiba Turb
1133	0.1	0.5	6.82	1.17	23.47	-131	1.90	66.4	Cl	21.19	68.1
1138	0.2	1.5	6.75	1.18	23.99	-228	1.12	58.6	Cl	21.24	63.0
1143	0.2	2.5	6.73	1.18	24.33	-281	0.93	56.3	Cl	21.24	56.9
1148	0.2	3.5	6.73	1.18	24.30	-326	0.84	49.3	Cl	21.24	52.0
1153	0.2	4.5	6.74	1.18	24.27	-344	0.83	50.7	Cl	21.24	54.0
1158	0.2	5.5	6.73	1.18	24.30	-353	0.82	48.8	Cl	21.24	51.2

Sample ID: MW-3	**Sample Date:** 10/27/17	**Sample Time:** 1159
Comments: All above water quality parameters will be recorded, but only pH, temperature, conductivity, ORP, and DO to determine well stabilization. Collect sample and document if the parameters do not stabilize after 5 cycles. ORP did not stabilize For lead samples, one unfiltered sample will be submitted and analyzed and one 10 micron field filtered sample will be submitted *on hold*.		
Level of PPE: D – Steel toed boots, safety glasses, nitrile gloves	**Analytical Parameters:** VOCs (8260B) and lead (6020) to A&B Laboratories. TPH (1005) and PAHs (8270) to DHL Analytical. +8 PAHs	
Disposition of Purged Water: Left on site in new 55-gallon steel drum in NE corner of property	**Sampler's Signature/Date** Ryan Mast	

[1]maximum draw down should be <1 ft. from initial static WL

(2" = 0.16)
(4" = 0.65)

WESTON SOLUTIONS

GROUNDWATER SAMPLING FIELD DATA SHEET

SITE: DRA Block 333 Phase II **WELL ID:** MW-4

PROJECT NUMBER: 15533.002.001.0002 **DATE:** 10/27/17

Casing Diameter (2" / 4")	Screened Interval (ft. BGS)	Flow Rate[1] See Below
2"	25-45	
Total Depth after sampling (ft. BTOC)	Purge Equipment	Sample Equipment
44.87' Soft bottom	Peristaltic Pump, new tubing, flow thru cell	Same as purge, less flow thru cell
Static Water Level (ft. BTOC)	Depth of Sample Intake (ft. BTOC)	Analytical Equipment
before placing tubing in well N.M.	~35'	Horiba U52 water quality meter
with tubing in well 20.80		Hanna turbidity meter
Stick Up: Flush mount	Time Purge Started	
	1234	

Time	Flow Rate LPM	Volume Purged Liters	pH (+/- 0.1)	Sp. Cond. ms/cm^c (+/- 3%)	Temperature °C (+/- 1.0)	ORP mV (+/- 10)	DO mg/L (+/- 10%)	Turbidity NTU	Appearance Clear – C Opaque – O Cloudy – Cl Grey – G Tan – T	Depth to Water[1] ft. BTOC	Horiba turb
1238	0.2	0.5	6.85	1.25	25.04	-109	1.29	56.1	SL. Cl.	20.98	52.3
1243	0.2	1.5	6.84	1.26	25.03	-205	0.80	67.5	Cl	20.96	85.3
1248	0.2	2.5	6.82	1.26	25.06	-280	0.66	54.3	Cl	20.98	59.5
1253	0.2	3.5	6.86	1.25	25.18	-310	0.64	45.3	SL. Cl	20.98	44.7
1258	0.2	4.5	6.86	1.25	25.11	-314	0.61	43.2	SL. Cl	20.98	40.8
1303	0.2	5.5	6.85	1.26	25.28	-320	0.58	35.1	SL. Cl	20.98	34.0
				End of log							

Sample ID: MW-4	Sample Date: 10/27/17	Sample Time: 1304
Comments: All above water quality parameters will be recorded, but only pH, temperature, conductivity, ORP, and DO to determine well stabilization. Collect sample and document if the parameters do not stabilize after 5 cycles. For lead samples, one unfiltered sample will be submitted and analyzed and one 10 micron field filtered sample will be submitted *on hold.* ~~PB15~~		
Level of PPE: D – Steel toed boots, safety glasses, nitrile gloves	**Analytical Parameters:** VOCs (8260B) and lead (6020) to A&B Laboratories. TPH (1005) and PAHs (8270) to DHL Analytical. + PCBs	
Disposition of Purged Water: Left on site in new 55-gallon steel drum in NE corner of property	**Sampler's Signature/Date** [signature] 10/27/17	

[1]maximum draw down should be <1 ft. from initial static WL (2" = 0.16) (4" = 0.65)

Collected duplicate DUP-3 simultaneously w/ time of 1234

Strong hydrocarbon odor in purge/sample water

WESTON SOLUTIONS

WESTON Elevation Survey Form

Client: DRA
Project Name: DRA Block 333 - Phase II
WO Number: 15533.002.001.0002
Site Location: 1519 Fannin, Houston, TX
Date: 10/26/17
Personnel: R. Omerza, L. Goss

Station ID (MW or TP name)	Backsight (ft, +)	Instrument Elev. (ft)	Foresight (ft, -)	Station Elev. (ft)
MW-3	6.27	106.27		100
MW-2		106.27	6.02	100.25
MW-1		106.27	5.74	100.53
MW-4		106.27	6.36	99.91
MW-4	6.38	106.29		99.91
MW-1		106.29	5.76	100.53
MW-2		106.29	6.03	100.26
MW-3		106.29	6.28	100.01

Backsight + Station Elevation= Instrument Elevation
Instrument elevation - Foresight = Station Elevation

When closing the loop, the margin of error should be less than 0.02 ft or the PM should be consulted.

Please provide a map that shows approximate locations of the survey instrument locations and station (MW) locations.

Comments:
Moved laser laterally ~3 ft before closing loop.

Well Log

Well ID: **MW-1**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23 - 24/2017
Time of Boring: 1340 - 1600 / 0740 - 0950

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Geoprobe (GP)
Total Depth: 44 ft.
Completed Depth: 44 ft.
Borehole Dia.: 8.25 in.

STATE OF TEXAS · DAWN DENHAM · GEOLOGY · 344 · LICENSED PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:03:49 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 21.89 ft.
Initial W. Level: 36 ft.

Top of Casing Elevation: 100.53 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			Blank Casing: Casing: PVC Diameter: 2" From: 0 - 28.5' bgs
		GP	50%	0.0			SANDY CLAY, reddish brown and medium gray with black mottling, fine grained with some medium grained, slightly moist.			Grout: Cement Quick Grout From: 0 - 22.5' bgs
	MW-1-3-5						At 1.5 ft bgs: Medium gray with orangish brown mottling, fine grained.			
							At 4 ft bgs: Dark gray with orangish brown mottling.			
5		GP	100%	0.0						
							At 8 ft bgs: Dark gray and light brown.			
							At 9 ft bgs: Greenish gray and medium brown, minor calcareous nodules.			
10		GP	100%	0.0						
					CL		At 12 ft bgs: Greenish gray with orangish brown mottling, variable sand content.			
		GP	100%	0.0						
15							At 16 ft bgs: Greenish gray and medium brown, slightly to moderately moist, stiff.			
							At 17 ft bgs: Approx. 3 in. of wet clayey sand.			
		GP	100%	0.0						
20							At 20 ft bgs: Medium brown, soft, moist.			
							At 21 ft bgs: Reddish brown and greenish gray, abundant calcareous material.	▼		
		GP	100%	0.0						Bentonite: Type: 3/8" Chips, Holeplug From: 22.5' - 26.5' bgs
25							At 24 ft bgs: Medium brown grading to greenish gray, grading to light gray with orangish mottling, slight to			

CS - Continuous Sampler SS - Split-Spoon Sampler

Well Log

Well ID: **MW-1**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St.
Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23 - 24/2017
Time of Boring: 1340 - 1600 / 0740 - 0950

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Geoprobe (GP)
Total Depth: 44 ft.
Completed Depth: 44 ft.
Borehole Dia.: 8.25 in.

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 21.89 ft.
Initial W. Level: 36 ft.

Top of Casing Elevation: 100.53 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
25		GP	90%	0.0			moderately moist, some calcareous material.			Sand Pack: Type: Silica sand 16/30 From: 26.5' - 44' bgs
							At 28 ft bgs: Medium brown grading to light gray, slight to moderately moist, some calcareous material.			
30		GP	100%	0.0	CL					Screen Size: 0.010" Diameter: 2" From: 28.5' - 43.5' bgs
							At 32 ft bgs: Medium brown and light gray, moderately moist, moderately plastic.			
		GP	100%	0.0			At 34 ft bgs: Reddish brown and light gray.			
35	MW-1-34-36							⊠		
							Mixed CLAYEY SAND and SANDY CLAY, red with some light gray, fine grained, moist to saturated.			
		GP	50%	0.0	CL					
40							CLAYEY SAND, red, fine grained, wet.			
					SC					
		GP	75%	0.0	SP		SAND, red, fine grained, wet.			Sump: 43.5' - 44' bgs
					CH		CLAY with some sand, red with some light gray, fine grained, some calcareous material, stiff/hard, dry.			
45										

Well Log

Well ID: **MW-2**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/24/2017
Time of Boring: 1012 - 1205

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Continuous Sampler (CS)
Total Depth: 45 ft.
Completed Depth: 45 ft.
Borehole Dia.: 8.25 in.

STATE OF TEXAS · DAWN DENHAM · GEOLOGY · 344 · LICENSED · PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:04:04 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 21.46 ft.
Initial W. Level: 35 ft.

Top of Casing Elevation: 100.25 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0				0.0			Concrete			Blank Casing: Casing: PVC Diameter: 2" From: 0 - 29.5' bgs
				0.0			FILL sand, medium brown, fine grained, moderately moist.			Grout: Cement Quick Grout From: 0 - 23.5' bgs
5		CS	50%	0.0						
				0.0						
		CS	40%	0.0						
10	MW-2-10-12.5			0.0						
		CS	60%	0.0			SANDY CLAY, green with some medium brown, fine grained, decreased sand and increased stiffness with depth, moderately moist to moist.			
15				0.0	CL		At 15 ft bgs: Greenish gray with orangish brown mottling, slightly moist.			
		CS	100%	0.0			At 18 ft bgs: Greenish gray and medium brown, minor calcareous material, minor mixed sand and clay.			
20				0.0			CLAY (red with black mottling) and SANDY CLAY (greenish gray and orangish brown mottling), fine grained, stiff, dry.			
				0.0	CH		At 22 ft bgs: Abundant calcareous material, softer, moderately moist.			
		CS	100%	0.0			SANDY CLAY, greenish gray with orangish brown mottling, fine grained, slightly moist.			Bentonite: Type: 3/8" Chips, Holeplug From: 23.5' - 27.5' bgs
25										

Well Log

Well ID: **MW-2**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/24/2017
Time of Boring: 1012 - 1205

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Continuous Sampler (CS)
Total Depth: 45 ft.
Completed Depth: 45 ft.
Borehole Dia.: 8.25 in.

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 21.46 ft.
Initial W. Level: 35 ft.

Top of Casing Elevation: 100.25 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
25										
		CS	100%	0.0	CL		At 25 ft bgs: Slightly moist to moderately moist.			
				0.0						
30				0.0			At 30 ft bgs: Reddish brown and greenish gray, dry/brittle.			
		CS	80%	0.0						
	MW-2-33-35			0.0						
35				0.0			CLAYEY SAND, reddish brown (increasing gray with depth) and light gray, fine grained, saturated.	▽		
		CS	70%	0.0						
40					SC		At 40 ft bgs: Reddish brown with minor light gray.			
		CS	50%	0.0						
45					CH		CLAY with minor sand, reddish brown with minor light gray, fine grained, stiff/hard, dry.			

Sand Pack:
Type: Silica sand 16/30
From: 27.5' - 44' bgs

Screen
Size: 0.010"
Diameter: 2"
From: 29.5' - 44.5' bgs

Sump:
44.5' - 45' bgs

Well Log

Well ID: **MW-3**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/25/2017
Time of Boring: 0805 - 1005

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Continuous Sampler (CS)
Total Depth: 45 ft.
Completed Depth: 45 ft.
Borehole Dia.: 8.25 in.

STATE OF TEXAS · DAWN DENHAM · GEOLOGY · 344 · LICENSED · PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:04:19 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 20.97 ft.
Initial W. Level: 35 ft.

Top of Casing Elevation: 100.00 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0				0.0			Asphalt			Blank Casing: Casing: PVC Diameter: 2" From: 0 - 29.5' bgs
	MW-3-2-4	CS	100%	0.0			SANDY CLAY, dark gray, some oxidized nodules, fine grained, stiff, moderate plasticity, slightly to moderately moist.			Grout: Cement Quick Grout From: 0 - 23.5' bgs
5				0.0			At 5 ft bgs: Grading to medium gray with orangish brown mottling.			
	MW-3-8-9	CS	100%	0.0						
10				0.0			At 10 ft bgs: Medium brown and greenish gray, some calcareous material, increasing with depth.			
		CS	100%	0.0	CL					
15				0.0			At 15 ft bgs: Orangish brown and greenish gray, increasing sand content, slightly plastic, minor calcareous material.			
		CS	100%	0.0			At 17 ft bgs: Orangish brown and light gray.			
20				0.0			At 20 ft bgs: Medium brown and greenish gray, decreasing sand content, abundant calcareous material.	▼		
		CS	75%	1.0						
25	MW-3-22.5-25			54.0						Bentonite: Type: 3/8" Chips, Holeplug From: 23.5' - 27.5' bgs

Well Log

Well ID: **MW-3**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St.
Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/25/2017
Time of Boring: 0805 - 1005

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Continuous Sampler (CS)
Total Depth: 45 ft.
Completed Depth: 45 ft.
Borehole Dia.: 8.25 in.

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 20.97 ft.
Initial W. Level: 35 ft.

Top of Casing Elevation: 100.00 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
25		CS	100%	0.0	CL		At 25 ft bgs: Greenish gray with orangish brown mottling, intermittent minor calcareous material.			Sand Pack: Type: Silica sand 16/30 From: 27.5' - 45' bgs
				0.0						
30				0.0			At 30 ft bgs: Medium brown and greenish gray, slightly moist and increasing moisture with depth, little calcareous material.			Screen Size: 0.010" Diameter: 2" From: 29.5' - 44.5' bgs
		CS	70%	0.0						
35					SC		CLAYEY SAND, reddish brown with some light gray, fine grained, saturated.	⊠		
		CS	50%	0.0						
40										
		CS	50%	0.0	CH		CLAY, reddish brown with some light gray, stiff, dry.			Sump: 44.5' - 45' bgs
45										

Well Log

Well ID: **MW-4**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St.
Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/24/2017
Time of Boring: 1425 - 1605

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Continuous Sampler (CS)
Total Depth: 45 ft.
Completed Depth: 45 ft.
Borehole Dia.: 8.25 in.

STATE OF TEXAS
DAWN DENHAM
GEOLOGY
344
LICENSED
PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:04:35 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 20.74 ft.
Initial W. Level: 30 ft.

Top of Casing Elevation: 99.91 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0					SC		Concrete		Blank Casing: Casing: PVC Diameter: 2" From: 0 - 24.5' bgs	
							CLAYEY SAND, dark gray with medium brown and greenish dark gray, possible fibrous organic material, fine to medium grained, moderately moist.			
		CS	50%	0.0			SANDY CLAY, dark gray, fine grained, high plasticity, moderately moist.			
5					CH		At 5 ft bgs: Dark gray with minor oxidized nodules, grading to light greenish gray with orangish brown mottling.			
				0.0						
		CS	100%	0.0						
10				0.0			CLAY with minor sand, medium brown and greenish gray, stiff, moderate plasticity, minor calcareous material, dry to slightly moist.			
		CS	90%	0.0	CL					
				0.0			SANDY CLAY, medium brown and greenish gray, fine grained, intermittent calcareous material, dry to slightly moist.			
15							At 15 ft bgs: Abundant calcareous material, less cohesive.			
				0.0			At 16 ft bgs: Intermittent calcareous material.			
		CS	100%	34.3					Bentonite: Type: 3/8" Chips, Holeplug From: 18.5' - 22.5' bgs	
					CL		At 19 ft bgs: Reddish brown, increased calcareous material.			
20				279.8			At 20 ft bgs: Dark brown grading to medium brown and light gray, abundant calcareous material, dry/brittle.			
	MW-4-21-25	CS	50%	1197					Sand Pack: Type: Silica sand 16/30 From: 22.5' - 45' bgs	
25										

Well Log

Well ID: **MW-4**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/24/2017
Time of Boring: 1425 - 1605

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Hollow-Stem Auger
Drilling Rig:
Sampling Method: Continuous Sampler (CS)
Total Depth: 45 ft.
Completed Depth: 45 ft.
Borehole Dia.: 8.25 in.

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: 20.74 ft.
Initial W. Level: 30 ft.

Top of Casing Elevation: 99.91 ft.
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
25	MW-4-25-27 DUP-2	CS	90%	1873	CL		At 25 ft bgs: Medium brown, orangish brown, and light gray, strong gasoline odor, abundant calcareous material, dry/brittle.	▽		Screen Size: 0.010" Diameter: 2" From: 24.5' - 44.5' bgs
				769.2			At 27.5 ft bgs: More stiff/cohesive, slightly moist.			
30				123.5			At 30 ft bgs: Greenish gray and reddish brown, wet/non-cohesive to 34 ft bgs, dry/solid to 35 ft bgs.			
		CS	50%	846.0						
35							No recovery. Driller reported that the material was too soft to collect a sample.			
		CS	0%							
40					SC		CLAYEY SAND, reddish brown with some light gray, fine grained, saturated.			
		CS	50%	0.0						
					CL		SANDY CLAY, reddish brown and light gray, fine grained, stiff, dry.			Sump: 44.5' - 45' bgs
45										

Boring Log

Boring ID: **SB-1**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23/2017
Time of Boring: 0850 - 0900

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Direct Push
Drilling Rig:
Sampling Method: Direct Push (DP)
Total Depth: 10 ft.
Completed Depth: NA
Borehole Dia.: 2.5 in.

STATE OF TEXAS · DAWN DENHAM · GEOLOGY · 344 · LICENSED · PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:04:50 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: NA
Initial W. Level: NA

Top of Casing Elevation: NA
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			
				0.0	CL		SANDY CLAY, dark gray, fine grained, moderate plasticity, moderately moist.			
		DP	100%	0.0						
	SB-1-3-5				SW		SAND, orangish brown (coarse grained) and tan (fine grained), moist.			
							SANDY CLAY, light gray grading to medium gray with greenish gray, stiff, fine grained.			
5				0.0						
		DP	100%							
				0.0	CL		At 8 ft bgs: Light gray and greenish gray, decreasing sand content.			
	SB-1-8-10	DP	100%	0.0						
10										

Boring Log

Boring ID: **SB-2**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23/2017
Time of Boring: 0915 - 0925

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Direct Push
Drilling Rig:
Sampling Method: Direct Push (DP)
Total Depth: 10 ft.
Completed Depth: NA
Borehole Dia.: 2.5 in.

STATE OF TEXAS · DAWN DENHAM · GEOLOGY · 344 · LICENSED · PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:05:03 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: NA
Initial W. Level: NA

Top of Casing Elevation: NA
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			
				0.0			SANDY CLAY, dark gray, fine grained, moderate plasticity, moderately moist.			
		DP	100%							
				0.0						
	SB-2-3-5						At 4 ft bgs: Medium gray.			
					CL					
5				0.0						
		DP	100%				At 6 ft bgs: Light gray with light brown mottling, high plasticity.			
				0.0						
							At 8 ft bgs: Light gray, decreasing sand content.			
	SB-2-8-10	DP	100%	0.0						
					CH		CLAY, reddish brown with light gray mottling and some black organic nodules, stiff, slightly moist.			
10										

Boring Log

Boring ID: **SB-3**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23/2017
Time of Boring: 0825 - 0835

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Direct Push
Drilling Rig:
Sampling Method: Direct Push (DP)
Total Depth: 12 ft.
Completed Depth: NA
Borehole Dia.: 2.5 in.

STATE OF TEXAS
DAWN DENHAM
GEOLOGY
344
LICENSED
PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:05:15 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: NA
Initial W. Level: NA

Top of Casing Elevation: NA
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			
				0.0			SANDY CLAY, dark gray grading to medium gray, coarse to fine grained, moderate plasticity, moderately moist.			
		DP	75%							
				0.0						
	SB-3-6-8						At 4 ft bgs: Some reddish brown oxidized nodules, strong odor.			
5				0.0	CL					
		DP	100%				At 6 ft bgs: Light gray, high plasticity.			
				653						
							At 8 ft bgs: Light gray and greenish gray, decreasing sand content.			
	SB-3-8-10	DP		86.7						
10			100%				CLAY, light gray and medium brown, minor calcareous material, low plasticity, slightly moist.			
				54.3	CL					

Boring Log

Boring ID: **SB-4**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23/2017
Time of Boring: 1030 - 1040

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Direct Push
Drilling Rig:
Sampling Method: Hand Auger (HA)
Total Depth: 10 ft.
Completed Depth: NA
Borehole Dia.: 3 in.

STATE OF TEXAS · DAWN DENHAM · GEOLOGY · 344 · LICENSED · PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:05:28 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: NA
Initial W. Level: NA

Top of Casing Elevation: NA
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			
		HA	100%	0.0			SANDY CLAY, dark gray, fine grained, some coarse gravel/shell/fill material, moderate plasticity, moderately moist.			
		HA	100%	0.0			At 1 ft bgs: Fine grained, no fill.			
		HA	100%	0.0						
		HA	100%	0.0			At 3 ft bgs: Some orangish nodules, organics.			
	SB-4-4-5						At 4 ft bgs: Medium gray with orangish mottling.			
		HA	100%	0.0						
5					CL					
		HA	100%	0.0						
		HA	100%	0.0			At 7 ft bgs: Light gray with orangish mottling.			
		HA	100%	0.0						
		HA	100%	0.0						
	SB-4-9-10									
		HA	100%	0.0						
10										

Boring Log

Boring ID: **SB-6**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St. Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23/2017
Time of Boring: 1215 - 1225

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Direct Push
Drilling Rig:
Sampling Method: Direct Push (DP)
Total Depth: 10 ft.
Completed Depth: NA
Borehole Dia.: 2.5 in.

STATE OF TEXAS
DAWN DENHAM
GEOLOGY
344
LICENSED
PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:05:43 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: NA
Initial W. Level: NA

Top of Casing Elevation: NA
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			
							FILL sand, light brown, fine grained, moderately moist.			
				0.0			SANDY CLAY, dark gray with orangish brown mottling, fine to medium grained, slightly plastic, moist.			
		DP	100%				At 2.5 ft bgs: Increasing sand, moist.			
				0.0			At 3 ft bgs: Stiffer, moderately plastic.			
	SB-6-3-5						At 4 ft bgs: Dark gray with orangish mottling, grading to light gray with light brown mottling, fine grained, high plasticity, slightly moist.			
					CL					
5				0.0						
		DP	100%							
				0.0			At 7.5 ft bgs: Minor calcareous material.			
							CLAY with minor sand and calcareous material, greenish gray and medium brown, stiff, slightly moist.			
	SB-6-8-10	DP	100%	0.0	CH					
10										

Boring Log

Boring ID: **SB-7**

Project Name: DRA Block 333 Phase II
Project Number: 15533.002.001.0003
Site Location: 1519 Fannin St.
Houston, TX
Logged By: M. Kanarek
Approved By: D. Denham
Date(s) Drilled: 10/23/2017
Time of Boring: 1315-1325

Drilling Contractor: Envirotech Drilling Services
Driller's Name: Jorge
Drilling Method: Direct Push
Drilling Rig:
Sampling Method: Direct Push (DP)
Total Depth: 10 ft.
Completed Depth: NA
Borehole Dia.: 2.5 in.

STATE OF TEXAS
DAWN DENHAM
GEOLOGY
344
LICENSED
PROFESSIONAL GEOSCIENTIST

Dawn Denham 2017.12.07 10:05:57 -06'00'

State of Texas Geoscience Firm Registration No.: 50258

Static W. Depth: NA
Initial W. Level: NA

Top of Casing Elevation: NA
Ground Surface Elevation: NA
Datum: NA

Latitude: NA
Longitude: NA

Depth (ft)	Analysis Interval	Sample Type	% Recovery	Organic Vapor (ppm)	USCS Symbol	Graphic Log	Lithologic Description	Water Level	Well Construction	Installation Notes:
0							Concrete			
							SANDY CLAY, dark gray with medium brown, fine grained, minor sand layers, low plasticity, moist.			
		DP	40%	0.0						
	SB-7-3-5						At 4 ft bgs: Some orangish brown mottling, grading to medium gray, moderate to high plasticity.			
5				0.0	CL					
		DP	100%							
				0.0						
							At 8 ft bgs:Becoming greenish gray and medium brown, decreasing sand content.			
	SB-7-8-10 DUP-1	DP	100%	0.0						
10										

STATE OF TEXAS WELL REPORT for Tracking #466430

Owner:	**Downtown Redevelopment Authority**	Owner Well #:	**MW-1**
Address:	**909 Fannin Street, Suite 1650 Houston, TX 77010**	Grid #:	**65-14-7**
Well Location:	**1519 Fannin St. Houston, TX**	Latitude:	**29° 45' 07.33" N**
		Longitude:	**095° 22' 01.36" W**
Well County:	**Harris**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **10/23/2017** Drilling End Date: **10/24/2017**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**44**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**26.5**	**44**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**22.5**	**Cement 11.25 Bags/Sacks**
	22.5	**26.5**	**Bentonite 2 Bags/Sacks**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **21.89 ft.** below land surface on **2017-10-27**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Envirotech Drilling Services LLC**

PO BOX 19064
Houston, TX 77224

Driller Name: **David Draybuck** License Number: **59438**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**28.5**
2	**Screen**	**New Plastic (PVC)**	**40 0.010**	**28.5**	**43.5**
2	**Sump**	**New Plastic (PVC)**	**40**	**43.5**	**44**

Top (ft.)	Bottom (ft.)	Description
0	36	SANDY CLAY, reddish brown and medium gray with black mottling, fine grained with some medium grained, slightly moist. @ 1.5 ft bgs: Medium gray with orangish brown mottling, fine grained. @ 4 ft bgs: Dark gray with orangish brown mottling. @ 8 ft bgs: Dark gray and light brown. @ 9 ft bgs: Greenish gray and medium brown, minor calcareous nodules. @ 12 ft bgs: Greenish gray with orangish brown mottling, variable sand content. @ 16 ft bgs: Greenish gray and medium brown, slightly to moderately moist, stiff. @ 17 ft bgs: Approx. 3 in. of wet clayey sand. @ 20 ft bgs: medium brown, soft, moist. @ 21 ft bgs: Reddish brown and greenish gray , abundant calcareous material. @ 24 ft bgs: Medium brown grading to greenish gray, grading to light gray with orangish mottling, slight to moderately moist, some calcareous material. @ 28 ft bgs: Medium brown grading to light gray, slight to moderately moist, some calcareous material.
36	40	Mixed CLAYEY SAND and SANDY CLAY, red with some light gray, fine grained, moist to saturated.
40	42	CLAYEY SAND, red, fine grained, wet.
42	43	SAND, red, fine grained, wet.
43	44	CLAY with some sand, red with some light gray, fine grained, some calcareous material, stiff/hard, dry.

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #466436

Owner:	**Downtown Redevelopment Authority**	Owner Well #:	**MW-2**
Address:	**909 Fannin Street, Suite 1650 Houston, TX 77010**	Grid #:	**65-14-7**
Well Location:	**1519 Fannin St. Houston, TX**	Latitude:	**29° 45' 07.33" N**
		Longitude:	**095° 22' 01.36" W**
Well County:	**Harris**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **10/24/2017** Drilling End Date: **10/24/2017**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**45**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**27.5**	**44**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**23.5**	**Cement 11.75 Bags/Sacks**
	23.5	**27.5**	**Bentonite 2 Bags/Sacks**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **21.46 ft.** below land surface on **2017-10-27**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Envirotech Drilling Services LLC**

PO BOX 19064
Houston, TX 77224

Driller Name: **David Draybuck** License Number: **59438**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**12.5**	**FILL sand, medium brown, fine grained, moderately moist.**
12.5	**20**	**SANDY CLAY, green with some medium brown, fine grained, decreased sand and increased stiffness with depth, moderately moist to moist. @ 15 ft bgs: Greenish gray with orangish brown mottling, slightly moist. @ 18 ft bgs: Greenish gray and medium brown, minor calcareous material, minor mixed sand and clay.**
20	**23**	**CLAY (red with black mottling) and SANDY CLAY (greenish gray and orangish brown mottling), fine grained, stiff, dry. @ 22 f bgs: Abundant calcareous material, softer, moderately moist.**
23	**35**	**SANDY CLAY, greenish gray with orangish brown mottling, fine grained, slightly moist. @ 25 ft bgs: Slightly moist to moderately moist. @ 30 ft bgs: Reddish brown and greenish gray, dry/brittle.**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**29.5**
2	**Screen**	**New Plastic (PVC)**	**40 0.010**	**29.5**	**44.5**
2	**Sump**	**New Plastic (PVC)**	**40**	**44.5**	**45**

35	**44**	**CLAYEY SAND, reddish brown (increasing gray with depth) and light gray, fine grained, saturated. @ 40 ft bgs: Reddish brown with minor light gray.**
44	**45**	**CLAY with minor sand, reddish brown with minor light gray, fine grained, stiff/hard, dry.**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #466434

Owner:	**Downtown Redevelopment Authority**	Owner Well #:	**MW-3**
Address:	**909 Fannin Street, Suite 1650 Houston, TX 77010**	Grid #:	**65-14-7**
Well Location:	**1519 Fannin St. Houston, TX**	Latitude:	**29° 45' 07.33" N**
		Longitude:	**095° 22' 01.36" W**
Well County:	**Harris**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **10/25/2017** Drilling End Date: **10/25/2017**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**45**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**27.5**	**45**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**23.5**	**Cement 11.75 Bags/Sacks**
	23.5	**27.5**	**Bentonite 2 Bags/Sacks**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **20.97 ft.** below land surface on **2017-10-27**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Envirotech Drilling Services LLC**

PO BOX 19064
Houston, TX 77224

Driller Name: **David Draybuck** License Number: **59438**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**Asphalt**
1	**35**	**SANDY CLAY, dark gray, some oxidized nodules, fine grained, stiff, moderately moist. @ 5 ft bgs: Frading to medium gray with orangish brown mottling. @ 10ft bgs: Medium brown and greenish gray, some calcareous material, increasing with depth. @ 15 ft bgs: Orangish brwon and greenish gray, increasing sand content, slightly plastic, minor calcareous material. @ 17 ft bgs: Orangish brown and light gray. @ 20 ft bgs: Medium brown and greenish gray, decreasing sand content, abundant calcareous material. @ 25 ft bgs: Greenish gray with orangish brown mottling, intermittent minor calcareous material. @ 30 ft bgs: Medium brown and greenish gray, slightly moist and increasing moisture with depth, little calcareous material.**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**29.5**
2	**Screen**	**New Plastic (PVC)**	**40 0.010**	**29.5**	**44.5**
2	**Sump**	**New Plastic (PVC)**	**40**	**44.5**	**45**

35	**43**	**CLAYEY SAND, reddish brown with some light gray, fine grained, saturated.**
43	**45**	**CLAY, reddish brown with some light gray, stiff, dry.**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #466429

Owner:	**Downtown Redevelopment Authority**	Owner Well #:	**MW-4**
Address:	**909 Fannin Street, Suite 1650 Houston, TX 77010**	Grid #:	**65-14-7**
Well Location:	**1519 Fannin St. Houston, TX**	Latitude:	**29° 45' 07.33" N**
		Longitude:	**095° 22' 01.36" W**
Well County:	**Harris**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **10/24/2017** Drilling End Date: **10/24/2017**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**45**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**22.5**	**45**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**18.5**	**Cement 9.25 Bags/Sacks**
	18.5	**22.5**	**Bentonite 2 Bags/Sacks**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **20.74 ft.** below land surface on **2017-10-27**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Envirotech Drilling Services LLC**

PO BOX 19064
Houston, TX 77224

Driller Name: **David Draybuck** License Number: **59438**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**Concrete**
1	**3**	**CLAYEY SAND, dark gray with medium brown and greenish dark gray possible fibrous organic material, fine to medium grained, moderately moist.**
3	**10**	**SANDY CLAY, dark gray, fine grained, high plasticity, moderately moist. @ 5 ft bgs: Dark gray with minor oxidized nodules, grading to light greenish gray with orangish brown mottling.**
10	**13**	**CLAY with minor sand, medium brown and greenish gray, stiff moderate plasticity, minor calcareous material, dry to slightly moist.**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**24.5**
2	**Screen**	**New Plastic (PVC)**	**40 0.010**	**24.5**	**44.5**
2	**Sump**	**New Plastic (PVC)**	**40**	**44.5**	**45**

13	**35**	**SANDY CLAY: medium brown and greenish gray, fine grained, intermittent calcareous material, dry to slightly moist. @ 15 ft bgs: abundant calcareous material, less cohesive. @ 16 ft bgs: Intermittent calcareous material. @ 19 ft bgs: Reddish brown, increased calcareous material. @ 20 ft bgs: Dark brown grading to medium brown and light gray, abundant calcareous material, dry/brittle. @ 25 ft bgs: Medium brown, orangish brown, and light gray strong gasoline odor, abundant calcareous material, dry/brittle. @ 27.5 ft bgs: More stiff/cohesive, slightly moist. @ 30 ft bgs: Greenish gray and reddish brown, wet/non-cohesive to 34 ft bgs, dry/soild to 35 ft bgs.**
35	**40**	**No Recovery. Driller reported that the material was too soft to collect a sample.**
40	**44**	**CLAYEY SAND, reddish brown with some light gray, fine grained, saturated.**
44	**45**	**SANDY CLAY, reddish brown and light gray, fine grained, stiff, dry.**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

ATTACHMENT D
TABLES

Table D1
Summary of Groundwater Elevations
Block 333 Phase II ESA
Houston, Texas

Well ID	Installation Date	Top of Casing Elevation (ft bgs)	Well Screen Interval (ft BTOC)	Total Depth (ft BTOC)	Date: 10/27/17	
					Depth to Water (ft BTOC)*	Relative GW Elevation (ft)
MW-1	10/23/2017	100.53	28.5-43.5	44.00	21.89	78.64
MW-2	10/24/2017	100.25	29.5-44.5	45.00	21.46	78.79
MW-3	10/25/2017	100.00	29.5-44.5	45.00	20.97	79.03
MW-4	10/24/2017	99.91	24.5-44.5	45.00	20.74	79.17

Notes:

ft - feet

ft bgs - feet below ground surface

ft BTOC - feet below top of casing

Wells surveyed using a temporary benchmark based on an assumed elevation of 100 feet.

Table D2
Soil Analytical Data - Soil Borings and MW-1
Block 333 Phase II ESA
Houston, Texas

Analyte					Petroleum Hydrocarbons (C06 to C12)	Total Petroleum Hydrocarbon (TPH)			Polychlorinated Biphenyls (PCBs)							Volatile Organic Compounds (VOCs)			
						Petroleum Hydrocarbons (>C12 to C28)	Petroleum Hydrocarbons (>C28 to C35)	Petroleum Hydrocarbons, Total (C06 to C35)	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Benzene	o-Xylene	Toluene	Xylenes (Total)
CAS Number					TPH-1005-1	TPH-1005-2	TPH-1005-4	TPH_C06-C	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	71-43-2	95-47-6	108-88-3	1330-20-7
Residential $^{GW}Soil_{Ing}$ PCLs[1]					65	200	200	NP	11	11	11	11	11	11	11	0.026	71	8.2	120
Station	Sample ID	Date	Depth (feet bgs)	Type															
MW-1	MW-1-34-36	10/23/2017	34-36	Normal	28.2 U	24.1 U	21 U	28.2 U	NA	NA	NA	NA	NA	NA	NA	0.00092 U	0.00092 U	0.00092 U	0.00092 U
	MW-1-3-5	10/23/2017	3-5	Normal	28.9 U	24.8 U	21.6 U	28.9 U	NA	NA	NA	NA	NA	NA	NA	0.00099 U	0.00099 U	0.00099 U	0.00099 U
SB-1	SB-1-3-5	10/23/2017	3-5	Normal	29.5 U	25.2 U	22 U	29.5 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
	SB-1-8-10	10/23/2017	8-10	Normal	30.7 U	26.3 U	23 U	30.7 U	NA	NA	NA	NA	NA	NA	NA	**0.009**	0.001 U	0.001 U	0.001 U
SB-2	SB-2-3-5	10/23/2017	3-5	Normal	29.7 U	25.4 U	22.2 U	29.7 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
	SB-2-8-10	10/23/2017	8-10	Normal	30.1 U	25.8 U	22.5 U	30.1 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
SB-3	SB-3-6-8	10/23/2017	6-8	Normal	**48**	26.5 U	**70.4**	**118.4**	0.0608 U	0.0608 U	0.0608 U	0.0608 U	0.0608 U	0.0608 U	0.0608 U	0.001 U	0.001 U	0.001 U	0.001 U
	SB-3-8-10	10/23/2017	8-10	Normal	31.1 U	26.7 U	23.3 U	31.1 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	**0.004 JH**	**0.003 JH**	**0.004 JH**
SB-4	SB-4-4-5	10/23/2017	4-5	Normal	30.6 U	26.2 U	22.8 U	30.6 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
	SB-4-9-10	10/23/2017	9-10	Normal	30.4 U	26.1 U	22.7 U	30.4 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
SB-6	SB-6-3-5	10/23/2017	3-5	Normal	29.4 U	25.2 U	22 U	29.4 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
	SB-6-8-10	10/23/2017	8-10	Normal	29.4 U	25.2 U	22 U	29.4 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
SB-7	SB-7-3-5-2	10/23/2017	3-5	Normal	28.8 U	**112**	**188**	**300**	0.0596 U	0.0596 U	0.0596 U	0.0596 U	0.0596 U	0.0596 U	0.0596 U	0.001 U	0.001 U	0.001 U	0.001 U
	SB-7-8-10	10/23/2017	8-10	Normal	30.1 U	25.8 U	22.5 U	30.1 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U
	Dup-1	10/23/2017	8-10	Duplicate	30.5 U	26.2 U	22.8 U	30.5 U	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U

Notes

[1]March 2017 TRRP soil to groundwater protective concentration
All values in milligrams per kilogram (mg/kg)
bgs - below ground surface

Bold concentration reported at or above the sample detection limit (SDL)
NA - Not Analyzed
NP - Not Published
U - Analyte not reported above the SDL
J - Analyte concentration is estimated
H - Bias in sample result likely to be high
Dup-1 is the duplicate of SB-7-8-10

Table D3
Soil Analytical Data - MW-2, MW-3, MW-4
Block 333 Phase II ESA
Houston, Texas

					Total Petroleum Hydrocarbon (TPH)				Lead	Volatile Organic Compounds (VOCs)										
Analyte					Petroleum Hydrocarbons (C06 to C12)	Petroleum Hydrocarbons (>C12 to C28)	Petroleum Hydrocarbons (>C28 to C35)	Petroleum Hydrocarbons, Total (C06 to C35)	Lead	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	m,p-Xylene	Methyl Ethyl Ketone	Naphthalene	n-Butylbenzene	n-Propylbenzene	o-Xylene
CAS Number					TPH-1005-1	TPH-1005-2	TPH-1005-4	TPH_C06-C	7439-92-1	95-63-6	108-67-8	71-43-2	100-41-4	98-82-8	108-38-3	78-93-3	91-20-3	104-51-8	103-65-1	95-47-6
PST Program Action Levels[1]					NP	NP	NP	NP	NP	NP	NP	0.12	36.8	NP	NP	NP	99.7	NP	NP	NP
Texas Specific Background Concentration[2]					NP	NP	NP	NP	15	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Station	Sample ID	Date	Depth (feet bgs)	Type																
MW-2	MW-2-10-12.5	10/24/2017	10-12.5	Normal	29 U	24.8 U	21.6 U	29 U	**6.13**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.00044 U	0.001 U	0.001 U	0.001 U
	MW-2-33-35	10/24/2017	33-35	Normal	26.8 U	22.9 U	20 U	26.8 U	**7.81**	0.00094 U	0.00094 U	0.00094 U	0.00094 U	0.00094 U	0.00094 U	0.002 U	0.00038 U	0.00094 U	0.00094 U	0.00094 U
MW-3	MW-3-22.5-25	10/25/2017	22.5-25	Normal	27.6 U	23.6 U	20.6 U	27.6 U	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	**0.037**	0.00042 U	0.001 U	0.001 U	0.001 U
	MW-3-2-4	10/25/2017	2-4	Normal	28.5 U	24.4 U	21.3 U	28.5 U	NA	0.00095 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U	**0.006**	0.00038 U	0.00095 U	0.00095 U	0.00095 U
MW-4	MW-4-21-25	10/24/2017	21-25	Normal	**33.2**	23.7 U	20.7 U	**33.2**	**11.5**	**8.04 JH**	**2.05 JH**	**0.874 JH**	**3.78 JH**	**0.594 JH**	**14 JH**	0.002 U	**0.883 JH**	**0.335 JH**	**1.09 JH**	**5.38 JH**
	MW-4-25-27	10/24/2017	25-27	Normal	**31.4**	22.3 U	19.5 U	**31.4**	**10.1**	**58.1 JH**	**18.9 JH**	**7.58 JH**	**28.6 JH**	2.23 U	**99.1 JH**	0.088 U	**6.8 JH**	**5.32 JH**	**11.1 JH**	**43 JH**

Notes

[1]August 2011 PST Action Levels

[2]30 Texas Administrative Code Chapter 350.51

All values in milligrams per kilogram (mg/kg)

Bold concentration reported at or above the sample detection limit (SDL)

Highlighted value exceeds the PST Action Level

NA - Not Analyzed

NP - Not Published

U - Analyte not reported above the SDL

J - Analyte concentration is estimated

H - Bias in sample result likely to be high

bgs - below ground surface

Table D3
Soil Analytical Data - MW-2, MW-3, MW-4
Block 333 Phase II ESA
Houston, Texas

Analyte					p-Isopropyltoluene	sec-Butylbenzene	tert-Butylbenzene	Toluene	Xylenes (Total)
CAS Number					**99-87-6**	**135-98-8**	**98-06-6**	**108-88-3**	**1330-20-7**
PST Program Action Levels[1]					**NP**	**NP**	**NP**	**39.1**	**117**
Texas Specific Background Concentration[2]					**NP**	**NP**	**NP**	**NP**	**NP**
Station	**Sample ID**	**Date**	**Depth (feet bgs)**	**Type**					
MW-2	MW-2-10-12.5	10/24/2017	10-12.5	Normal	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	MW-2-33-35	10/24/2017	33-35	Normal	0.00094 U	0.00094 U	0.00094 U	0.00094 U	0.00094 U
MW-3	MW-3-22.5-25	10/25/2017	22.5-25	Normal	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	MW-3-2-4	10/25/2017	2-4	Normal	0.00095 U	0.00095 U	0.00095 U	0.00095 U	0.00095 U
MW-4	MW-4-21-25	10/24/2017	21-25	Normal	0.216 U	0.216 U	**0.019 JH**	**3.54 JH**	**19.4 JH**
	MW-4-25-27	10/24/2017	25-27	Normal	**1.49 JH**	**1.44 JH**	0.044 U	**45.9 JH**	**142.1 JH**

Notes

[1]August 2011 PST Action Levels

[2]30 Texas Administrative Code Chapter 350.51

All values in milligrams per kilogram (mg/kg)

Bold concentration reported at or above the sample detection limit (SDL

Highlighted value exceeds the PST Action Level

NA - Not Analyzed

NP - Not Published

U - Analyte not reported above the SDL

J - Analyte concentration is estimated

H - Bias in sample result likely to be high

bgs - below ground surface

Table D4
Groundwater Analytical Data - MW-1
Block 333 Phase II ESA
Houston, Texas

Analyte				Total Petroleum Hydrocarbon (TPH)				Lead
				Petroleum Hydrocarbons (C06 to C12)	Petroleum Hydrocarbons (>C12 to C28)	Petroleum Hydrocarbons (>C28 to C35)	Petroleum Hydrocarbons, Total (C06 to C35)	Lead
CAS Number				TPH-1005-1	TPH-1005-2	TPH-1005-4	TPH-C06-C	7439-92-1
Residential $^{GW}GW_{Ing}$ PCLs[1]				**0.98**	**0.98**	**0.98**	**NP**	**0.015**
Station	**Sample ID**	**Date**	**Type**					
MW-1	MW-1	10/27/2017	Normal	0.687 U	0.687 U	0.687 U	0.687 U	**0.0004**

Notes

[1]March 2017 TRRP groundwater ingestion protective concentration levels (PCLs).

All values in milligrams per liter (mg/L)

Bold concentration reported at or above the sample detection limit (SDL)

NP - Not Published

U - Analyte not reported above the SDL

Table D5
Groundwater Analytical Data - MW-2, MW-3, MW-4
Block 333 Phase II ESA
Houston, Texas

				Total Petroleum Hydrocarbon (TPH)				Lead	Polyaromatic Hydrocarbons (PAHs)						
Analyte				Petroleum Hydrocarbons (C06 to C12)	Petroleum Hydrocarbons (>C12 to C28)	Petroleum Hydrocarbons (>C28 to C35)	Petroleum Hydrocarbons, Total (C06 to C35)	Lead	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene
CAS Number				TPH-1005-1	TPH-1005-2	TPH-1005-4	TPH_C06-C	7439-92-1	83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2
PST Program Action Levels[1]				NP	NP	NP	NP	NP	2.19	2.19	11	0.000117	0.0002	0.000117	1.1
Station	Sample ID	Date	Type												
MW-2	MW-2	10/27/2017	Normal	0.691 U	0.691 U	0.691 U	0.691 U	0.0002 U	NA	NA	NA	NA	NA	NA	NA
MW-3	MW-3	10/27/2017	Normal	**0.72 J**	**0.827 J**	0.679 U	**1.55 J**	0.0002 U	0.0000272 U	0.0000272 U	0.0000272 U	0.0000272 U	0.0000272 U	0.0000272 U	0.0000272 U
MW-4	Dup-3	10/27/2017	Normal	**4.66**	0.686 U	0.686 U	**4.66**	**0.0009**	NA	NA	NA	NA	NA	NA	NA
	MW-4	10/27/2017	Duplicate	**5.39**	0.68 U	0.68 U	**5.39**	**0.001**	NA	NA	NA	NA	NA	NA	NA

Notes

[1]August 2011 PST Action Levels

All values in milligrams per liter (mg/L)

Bold concentration reported at or above the sample detection limit (SDL)

Highlighted value exceeds the PST Action Level

NA - Not Analyzed

NP - Not Published

U - Analyte not reported above the SDL

J - Analyte concentration is estimated

Table D5
Groundwater Analytical Data - MW-2, MW-3, MW-4
Block 333 Phase II ESA
Houston, Texas

				Polyaromatic Hydrocarbons (PAHs)										Volatile Organic Compounds (VOCs)				
Analyte				**Benzo(k)-fluoranthene**	**Chrysene**	**Dibenzo(a,h)-anthracene**	**Dibenzofuran**	**Fluoranthene**	**Fluorene**	**Indeno(1,2,3-cd)-pyrene**	**Naphthalene**	**Phenanthrene**	**Pyrene**	**1,2,4-Trimethyl benzene**	**1,3,5-Trimethyl benzene**	**Benzene**	**Ethyl-benzene**	**Isopropyl-benzene**
CAS Number				**207-08-9**	**218-01-9**	**53-70-3**	**132-64-9**	**206-44-0**	**86-73-7**	**193-39-5**	**91-20-3**	**85-01-8**	**129-00-0**	**95-63-6**	**108-67-8**	**71-43-2**	**100-41-4**	**98-82-8**
PST Program Action Levels[1]				**0.00117**	**0.0117**	**0.0002**	**0.146**	**1.46**	**1.46**	**0.000117**	**0.73**	**1.1**	**1.1**	**NP**	**NP**	**0.005**	**0.7**	**NP**
Station	**Sample ID**	**Date**	**Type**															
MW-2	MW-2	10/27/2017	Normal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
MW-3	MW-3	10/27/2017	Normal	0.0000272 U	0.0000272 U	0.0000272 U	0.0000272 U	**0.0000319 J**	0.0000272 U	0.0000272 U	**0.0000718**	**0.0000389 J**	0.0000272 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
MW-4	Dup-3	10/27/2017	Normal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.199**	**0.056**	**0.428**	**0.134**	**0.018**
	MW-4	10/27/2017	Duplicate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.203**	**0.056**	**0.449**	**0.137**	**0.017**

Notes

[1]August 2011 PST Action Levels

All values in milligrams per liter (mg/L)

Bold concentration reported at or above the sample detection

Highlighted value exceeds the PST Action Level

NA - Not Analyzed

NP - Not Published

U - Analyte not reported above the SDL

J - Analyte concentration is estimated

Table D5
Groundwater Analytical Data - MW-2, MW-3, MW-4
Block 333 Phase II ESA
Houston, Texas

				Volatile Organic Compounds (VOCs)							
Analyte				m,p-Xylene	Naphthalene	n-Butyl-benzene	n-Propyl-benzene	o-Xylene	sec-Butyl-benzene	Toluene	Xylenes (Total)
CAS Number				108-38-3	91-20-3	104-51-8	103-65-1	95-47-6	135-98-8	108-88-3	1330-20-7
PST Program Action Levels[1]				NP	0.73	NP	NP	NP	NP	1	10
Station	Sample ID	Date	Type								
MW-2	MW-2	10/27/2017	Normal	0.002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U
MW-3	MW-3	10/27/2017	Normal	0.002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U
MW-4	Dup-3	10/27/2017	Normal	**0.418**	**0.039**	**0.006**	**0.037**	**0.118**	**0.004 J**	**0.182**	**0.536**
	MW-4	10/27/2017	Duplicate	**0.427**	**0.039**	**0.006**	**0.036**	**0.119**	**0.004 J**	**0.185**	**0.546**

Notes

[1]August 2011 PST Action Levels

All values in milligrams per liter (mg/L)

Bold concentration reported at or above the sample detection

Highlighted value exceeds the PST Action Level

NA - Not Analyzed

NP - Not Published

U - Analyte not reported above the SDL

J - Analyte concentration is estimated

ATTACHMENT E
DATA USABILITY SUMMARY AND ANALYTICAL DATA PACKAGES

DATA USABILITY SUMMARY

FOR

DOWNTOWN REDEVELOPMENT AUTHORITY

BLOCK 333,

HOUSTON, TEXAS

PHASE II ENVIRONMENTAL SITE ASSESSMENT

OCTOBER 23-27, 2017

Prepared by
Nancy K. Toole
ECS Environmental Chemistry Services
PO Box 79782
Houston, Texas

Under Subcontract to:

WESTON Solutions, Inc.
5599 San Felipe, Suite 700
Houston, TX 77056-2721
(713) 985-6600

November 28, 2017

TABLE OF CONTENTS

APPENDICES

1. TLAP LABORATORY ACCREDITATION CERTIFICATION STATEMENT

WESTON Solutions, Inc. certifies that at the time the laboratory data were generated for the sampling event, A&B Labs in Houston, Texas (A&B) and DHL Analytical in Round Rock, Texas (DHL) were accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods, and parameters of analysis requested on the chain-of-custody form that were performed by each laboratory.

A&B analyzed soil samples for volatile organic compounds, volatile aromatic hydrocarbons (BTEX), lead, and total petroleum hydrocarbons by Texas method 1005 (TPH) and groundwater samples for volatile organic compounds and lead. DHL analyzed soils for polychlorinated biphenyls (PCB) and groundwater for TX1005 TPH and polynuclear aromatic hydrocarbons (PAH).

A summary of the qualified data is presented in Appendix A. A&B Lab and DHL TCEQ Accreditation Certificates are presented in Appendix B for the analytical period.

2. INTRODUCTION

This Data Usability Summary (DUS) contains the results of the data review conducted by ECS Environmental Chemistry Services (ECS) for samples collected from the Block 333 site in Houston, Texas during a sampling event conducted in October 23 through 27, 2017. A&B and DHL analyzed the samples for the parameters listed in Table 2-1. Field quality control samples are identified in Table 2-2. Analytical data were evaluated for conformance to the requirements of the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program Regulatory Guidance document 13 (TRRP 13).

The purpose of this project was to determine the presence and extent of chemicals of concern (COCs) in soil and groundwater based on historical and current property usage. The review process contained in this Data Usability Summary (DUS) includes an evaluation of the Laboratory Review Checklist (LRCs), Exception Reports (ERs) and reportable data for all data.

The data review criteria and results of the data review are covered for each analytical method in Section 3.0 of this report. The result of the data review process is the qualified data presented in Appendix A. The data were qualified using the qualifiers and bias codes presented in TRRP 13 and are presented in Appendix A of this report.

Section 4.0 presents an evaluation of the usability of the data for meeting the project objectives.

Table 2-1

Block 333 Houston, Texas

Sample Summary

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MATRIX	PARAMETER
17101348 (A&B)	17101348.01	Trip Blank-1	10/23/2017	Water	V
	17101348.02	SB-3-6-8	10/23/2017	Soil	BTEX, 1005
	17101348.03	SB-3-8-10	10/23/2017	Soil	BTEX, 1005
	17101348.04	SB-1-3-5	10/23/2017	Soil	BTEX, 1005
	17101348.05	SB-1-8-10	10/23/2017	Soil	BTEX, 1005
	17101348.06	SB-2-3-5	10/23/2017	Soil	BTEX, 1005
	17101348.07	SB-2-8-10	10/23/2017	Soil	BTEX, 1005
	17101348.08	SB-4-4-5	10/23/2017	Soil	V, 1005
	17101348.09	SB-4-9-10	10/23/2017	Soil	V, 1005
	17101348.11	SB-6-3-5	10/23/2017	Soil	BTEX, 1005
	17101348-12	SB-6-8-10	10/23/2017	Soil	BTEX, 1005
	17101348-13	SB-7-3-5	10/23/2017	Soil	BTEX, 1005
	17101348.14	SB-7-8-10	10/23/2017	Soil	BTEX, 1005
	17101348.15	Dup-1	10/23/2017	Soil	BTEX, 1005
	17101348.16	MW-1-3-5	10/23/2017	Soil	V, 1005
	17101348.17	MW-1-34-36	10/23/2017	Soil	V, 1005
17101520 (A&B)	17101520.01	MW-3-2-4	10/25/2017	Soil	V, 1005

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MATRIX	PARAMETER
	17101520.02	MW-3-22-5-25	10/25/2017	Soil	V, 1005
	17101520.03	Trip Blank-4	10/25/2017	Water	V
17101525 (A&B)	17101525.01	MW-2-10-12.5	10/24/2017	Soil	V, 1005, PB
	17101525.02	MW-2-33-35	10/24/2017	Soil	V, 1005, PB
	17101525.03	Trip Blank-3	10/24/2017	Water	V
	17101525.04	FB-1	10/24/2017	Water	V
	17101525.05	MW-4-21-25	10/24/2017	Soil	V, 1005, PB
	17101525.06	MW-4-25-27	10/24/2017	Soil	V, 1005, PB
17101674 (A&B)	17101674.01	Trip Blank-5	10/27/2017	Water	V
	17101674.02	MW-1	10/27/2017	Water	V, PB
	17101674.03	MW-2	10/27/2017	Water	V, PB
	17101674.04	MW-3	10/27/2017	Water	V, PB
	17101674.05	MW-4	10/27/2017	Water	V, PB
	17101674.06	Dup-3	10/27/2017	Water	V, PB
	17101674.07	EB-1	10/27/2017	Water	V, PB
1710199 (DHL)	1710199-01	SB-3-6-8	10/23/2017	Soil	PCB
	1710199-11	SB-7-3-5	10/23/2017	Soil	PCB
1710266 (DHL)	1710266-01	MW-1	10/27/2017	Water	1005

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MATRIX	PARAMETER
	1710266-02	MW-2	10/27/2017	Water	1005
	1710266-3	MW-3	10/27/2017	Water	1005, PAH
	1710266-04	DUP-3	10/27/2017	Water	1005
	1710266-05	MW-4	10/27/2017	Water	1005
	1710266-06	EB-1	10/27/2017	Water	1005

V=Volatile Organic Compounds by EPA Method 8260C, BTEX= Volatile Aromatic Hydrocarbons by EPA Method 8260C, 1005=Total Petroleum Hydrocarbons by TCEQ Method TX1005, PB=Lead by EPA Method 6020B, PCB= Polychlorinated biphenyls by EPA Method SW-846 8082A, PAH=Polynuclear Aromatic Hydrocarbons by EPA Method 8270DLL

Table 2-2

Block 333 Houston, Texas

Field Quality Control Sample Summary

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	FIELD QC SAMPLE TYPE	ASSOCIATED SAMPLES
17101348 (A&B)	17101348.01	Trip Blank-1	Trip Blank	17101348.02-09, 11-17
	17101348.15	Dup-1	Field Duplicate	17101348.14
17101520 (A&B)	17101520.03	Trip Blank-4	Trip Blank	17101520.01, 02
17101525 (A&B)	17101525.01	MW-2-10-12.5	MS/MSD	17101525.01
	17101525.02	MW-2-33-35	MS/MSD	17101525.02
	17101525.03	Trip Blank-3	Trip Blank	17101525.01, 02, 05, 06
	17101525.04	FB-1	Field Blank	17101525.01, 02, 05, 06
17101674 (A&B)	17101674.01	Trip Blank-5*	Trip Blank	17101674.02-06
	17101674.06	Dup-3	MS/MSD	17101674.06
	17101674.06	Dup-3	Field Duplicate	17101674.05
	17101674.07	EB-1	Equipment Blank	17101674.02-06
1710266 (DHL)	1710266-04	DUP-3	Field Duplicate	1710266-05
	1710266-06	EB-1	Equipment Blank	1710266.01-05

*****This sample was used for a MS/MSD. It is not reviewed in this DUS because field blanks of any kind are not supposed to be used as a parent for a MS/MSD since it does not represent the groundwater matrix for the site.

3. DATA REVIEW RESULTS

3.1 VOLATILE ORGANIC COMPOUNDS

For volatile organic compound and aromatic hydrocarbon (BTEX) data, the following items are reviewed in this section:

- Initial Calibration
- Continuing Calibration
- Instrument Tuning
- Internal Standards
- Holding Time/Preservation Requirements
- Blanks
- Laboratory Control Samples
- Surrogates
- Matrix Spike/Matrix Spike Duplicates
- Field Duplicates

3.1.1 Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in the method. None of the volatile data were qualified based on initial calibration data.

3.1.2 Continuing Calibration

Continuing Calibrations were performed at the proper frequency and met the criteria specified in the method. None of the volatile data were qualified based on continuing calibration data.

3.1.3 GC/MS Instrument Tuning

GC/MS instrument tunes for s met the ion abundance criteria specified in the method. GC/MS tunes were conducted at the proper frequency (1 every 12 hours) for this data set. None of the volatile data were qualified based on tuning data.

3.1.4 Internal Standard

All internal standard area counts for reported data in this report were less than a factor of + OR- 50% from the associated calibration standard. None of the volatile data were qualified based on internal standards.

3.1.5 Holding Times/Preservation Requirements

The maximum holding time from date of collection to date of analysis for in aqueous and solid matrix samples that have been preserved at 4°C is 14 days. This holding time was met for all the samples in this data set. None of the volatile data were qualified based on holding time.

3.1.6 Blanks

All associated blanks were free of all reported analytes in concentrations at or greater than the Sample Detection Limits (SDLs). None of the volatile data were qualified based on blank data.

3.1.7 Laboratory Control Samples (LCS)

The LCS review criteria for volatile data are as follows:

ACCURACY (%R)	PRECISION (RPD)
60%-140%	40%

One LCS was analyzed with each analytical batch. These criteria were met for all the samples in this data set with the following exceptions:

SDG	LCS/LCSD ID	COMPOUND	LCS %R	LCSD %R	CONT. LIMITS	RPD	CONT. LIMIT	ASSOC. SAMPLES
17101348	Qb17102454	Chloromethane	155	130	60-140	18	40	17101348.02-09, 11-17

SDG	LCS/LCSD ID	COMPOUND	LCS %R	LCSD %R	CONT. LIMITS	RPD	CONT. LIMIT	ASSOC. SAMPLES
		Dichlorodifluoromethane	185	150	60-140	21	40	17101348.02-09, 11-17
		Trichlorofluoromethane	150	115	60-140	26	40	17101348.02-09, 11-17
17101520	Qb17102622	4-Isopropyltoluene	47	46	60-140	11	40	17101520.03
17101674	Qb17103142	Dichlorodifluoromethane	145	115	60-140	23	40	17101674.01-07

The associated samples and compound listed above were qualified as follows:

	Detected results	Non-Detected Results
% R greater than 140%	JH	No qualification
% R less than 60% but greater than or equal to 10%	JL	UJL
% R less than 10%	JL	R

3.1.8 Surrogates

The surrogate review criteria for volatile data are as follows:

ACCURACY (%R)
60%-140%

Each sample, standard and method blank was spiked with the appropriate surrogates. These criteria were met for all the samples in this data set with the following exceptions:

SDG	SAMPLE ID	SURROGATE	%R
17101348	17101348.03	p-Bromofluorobenzene	314

SDG	SAMPLE ID	SURROGATE	%R
17101525	17101525.05	1,2-Dichloroethane-d4	402
		p-Bromofluorobenzene	298
	17101525.06	p-Bromofluorobenzene	189

The volatile results for the samples listed above were qualified as follows:

	Detected results	Non-Detected Results
% R greater than 140%	JH	No qualification
% R less than 60% but greater than 10%	JL	UJL
% R less than 10%	JL	R

3.1.9 Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The MS/MSD review criteria for volatile data are as follows:

ACCURACY (%R)	PRECISION (RPD)
60%-140%	40%

MS/MSD analyses were analyzed at the proper frequency. These criteria were met for all the samples in this data set with the following exception:

SDG	MS/MSD ID	COMPOUND	MS %R	MSD %R	CONT. LIMITS	RPD	CONT. LIMIT
17101525	17101525-02 MS/MSD	Dichlorodifluoromethane	159	NA	60-140	NA	40

NA= Not analyzed

The parent samples for the MS/MSDs listed above were qualified as follows:

	Detected results	Non-Detected Results
% R greater than 140%	JH	No qualification
% R less than 60% but greater than or equal to 10%	JL	UJL
% R less than 10%	JL	R

3.1.10 Field Duplicates

For aqueous samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 30%. For aqueous samples, when one or both of the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater MQL. For solid matrix samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 50%. For solid matrix samples, when one or both the original and duplicate results are less than 5 times the MQL, the results agree within 3 times the greater MQL. The results of this evaluation of all detected results are shown in the following table:

SDG	FIELD DUP ID	ANALYTE	ORIGINAL RESULT	DUPLICATE RESULT	QC RESULT	CRITERIA
17101674	17101674.05/06	1,2,4-Trimethylbenzene	0.203	0.199	RPD: 2%	<=30%
		1,3,5-Trimethylbenzene	0.0560	0.0256	DIF:0.0304	<=0.050
		Benzene	0.449	0.428	RPD: 5%	<=30%
		Ethylbenzene	0.137	0.134	RPD: 2%	<=30%
		Isopropylbenzene	0.017	0.018	DIF: 0.001	<=0.010
		m, p-Xylene	0.427	0.418	RPD: 2%	<=30%
		Naphthalene	0.039	0.039	DIF: 0	<=0.010
		n-Butylbenzene	0.006	0.006	DIF: 0	<=0.010

SDG	FIELD DUP ID	ANALYTE	ORIGINAL RESULT	DUPLICATE RESULT	QC RESULT	CRITERIA
		n-Propylbenzene	0.036	0.037	DIF: 0.001	<=0.010
		o-Xylene	0.119	0.118	DIF: 0.001	<=0.050
		sec-Butylbenzene	0.004	0.004	DIF: 0	<=0.010
		Toluene	0.185	0.182	RPD: 2%	<=30%

All volatile field duplicate results met data review criteria. None of the volatile data required qualification based on field duplicate data.

3.2 POLYNUCLEAR AROMATIC HYDROCARBONS

For polynuclear aromatic hydrocarbon (PAH) data, the following items are reviewed in this section:

- Initial Calibration
- Continuing Calibration
- Instrument Tuning
- Internal Standard
- Holding Time/Preservation Requirements
- Blanks
- Laboratory Control Samples
- Surrogates
- Matrix Spike/Matrix Spike Duplicates
- Field Duplicates

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

3.2.1 Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in the method. None of the PAH data were qualified based on initial calibration data.

3.2.2 Continuing Calibration

Continuing Calibrations were performed at the proper frequency and met the criteria specified in the method. None of the PAH data were qualified based on continuing calibration data.

3.2.3 GC/MS Instrument Tuning

GC/MS instrument tunes were performed at the proper frequency and met the ion abundance criteria specified in the method. None of the PAH data were qualified based on GC/MS tuning data.

3.2.4 Internal Standards

All internal standard area counts for the samples in this report were less than a factor of + OR- 50% from the associated calibration standard and were within retention time windows. None of the PAH data were qualified based on internal standard data.

3.2.5 Holding Times/Preservation Requirements

The maximum holding time from date of collection to date of extraction for PAH in aqueous matrix samples that have been kept at a temperature of 4°C + or- 2°C is 7 days. The maximum holding time from date of extraction to date of analysis for PAH in aqueous matrix samples is 40 days. These holding times were met for all the samples in this data set. None of the PAH data were qualified based on holding times.

3.2.6 Blanks

All associated blanks were free of all reported analytes in concentrations at or greater than the Sample Detection Limits (SDLs). None of the PAH data were qualified based on blank data.

3.2.7 Laboratory Control Samples (LCS)

The LCS review criteria for PAH data are as follows:

ACCURACY (%R)	PRECISION (RPD)
60%-140%	40%

One LCS/LCSD set was analyzed with every analytical batch. These criteria were met for all the LCS/LCSD in this data set. None of the PAH data were qualified based on LCS data.

3.2.8 Surrogates

The surrogate review criteria for PAH data are as follows:

ACCURACY (%R)
60%-140%

Each sample, standard and method blank was spiked with the appropriate surrogates. These criteria were met for all the samples in this data set. None of the PAH data were qualified based on surrogate data.

3.2.9 Matrix Spike/Matrix Spike Duplicates (MS/MSD)

A project sample was not analyzed as a MS/MSD from this data set.

3.2.10 Field Duplicates

For aqueous samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 30%. For aqueous samples, when one or both the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater MQL. All semivolatile field duplicate results were non-detect, met review criteria, and did not require qualification.

3.3 TOTAL PETROLEUM HYDROCARBONS (TPH)

For TPH data, the following items are reviewed in this section:

- Initial Calibration
- Continuing Calibration
- Retention Time Window Check
- Holding Time/Preservation Requirements
- Blanks
- Surrogates
- Laboratory Control Sample
- Matrix Spike/Matrix Spike Duplicate
- Field Duplicates

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

3.3.1 Initial Calibration

Initial Calibrations were performed prior to sample analysis and met the criteria specified in the method. None of the TPH data were qualified based on initial calibration data.

3.3.2 Continuing Calibration

Continuing Calibrations were performed daily before sample analysis. Continuing Calibration results were within 25 Relative Percent Difference of the Initial Calibration. None of the TPH data were qualified based on initial and calibration verification data.

3.3.3 Retention Time Window Calibration Check

Retention times were checked once per analytical batch. The retention times met the criteria specified in the Laboratory SOP for this method. None of the TPH data were qualified based on retention time window data.

3.3.4 Holding Time/Preservation Requirements

The maximum holding time from the date of collection to the date of extraction for 1005 TPH in aqueous and solid matrix samples is 14 days. The maximum holding time from date of extraction to date of analysis for 1005 TPH in aqueous and solid matrix samples is 14 days. These TPH holding times were met for all the samples in this data set.

3.3.5 Blanks

All associated lab blanks were free of all reported analytes in concentrations at or greater than the Sample Detection Limits (SDLs). None of the TPH data were qualified based on blank data.

3.3.6 Surrogates

The surrogate review criteria for TPH data are as follows:

ACCURACY (%R)
60%-140%

Each sample, standard and method blank was spiked with the appropriate surrogates. These criteria were met for all the samples in this data set. None of the TPH data were qualified based on surrogate data.

3.3.7 Laboratory Control Sample (LCS)

The LCS review criteria for TPH data are as follows:

ACCURACY (%R)	PRECISION (RPD)
60%-140%	40%

One LCS was analyzed with each analytical batch. These criteria were met for all the samples in this data set. None of the TPH data were qualified based on LCS data.

3.3.8 Matrix Spike/Matrix Spike Duplicate Sample

The MS/MSD review criteria for TPH data are as follows:

ACCURACY (%R)	PRECISION (RPD)
60%-140%	40%

These criteria were met for all the semi MS/MSD in this data set. None of the TPH data were qualified based on MS/MSD data.

3.3.9 Field Duplicates

For aqueous samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 30%. For aqueous samples, when one or both of the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater MQL. For solid matrix samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 50%. For solid matrix samples, when one or both the original and duplicate results are less than 5 times the MQL, the results agree within 3 times the greater MQL. All TPH field duplicate results met data review criteria.

3.4 METALS

For metal data, the following items are reviewed in this section:

- Initial Calibration
- Initial and Continuing Calibration Verification
- Internal Standard
- Interference Check Sample (ICP/MS only)
- Serial Dilution, Post Digestion Spike, Method of Standard Addition
- Holding Time/Preservation Requirements

- Blanks
- Laboratory Control Sample
- Matrix Spike/ Matrix Spike Duplicate
- Field Duplicate

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

3.4.1 Initial Calibration

Initial Calibrations were performed daily prior to sample analysis. None of the metal data were qualified based on initial calibration data.

3.4.2 Initial and Continuing Calibration Verification

Initial Calibration Verifications (ICV) were conducted daily after the initial calibration. Continuing calibration verifications (CCV) were conducted before the first sample run, after every 10 samples, and at the end of the analytical sequence. Initial and Continuing Calibrations Verification were within 10% of the expected value. None of the metal data were qualified based on ICV or CCV data.

3.4.3 Interference Check Solution

All of the Interference Check Solutions (ICS) were conducted at the beginning of an analytical run or once during a 12-hour period, whichever was more frequent. All ICS were within 20% of the true value. None of the metal data were qualified based on ICS data.

3.4.4 Serial Dilution, Post Digestion Spike, Method of Standard Additions

The serial dilution, post digestion spike, and Method of Standard Additions (MSA) were performed, if needed, at the proper frequency and met the requirements set forth in the method respectively. None of the metal data were qualified based on these QC items.

3.4.5 Holding Time/Preservation Requirements

The maximum holding time from date of collection to date of analysis for metals in solid and aqueous matrix samples is 180 days. These holding times were met for all the samples in this data set.

3.4.6 Blanks

All associated lab blanks were free of all reported analytes in concentrations at or greater than the Sample Detection Limits (SDLs). None of the metal data were qualified based on blank data.

3.4.7 Laboratory Control Sample (LCS)

The LCS review criteria for metal data are as follows:

ACCURACY (%R)	PRECISION (RPD)
70%-130%	30%

One LCS was analyzed with each analytical batch. These criteria were met for the LCS in this data set. None of the metal data were qualified based on LCS data.

3.4.8 Matrix Spike Sample

The MS/MSD review criteria for metal data are as follows:

ACCURACY (%R)	PRECISION (RPD)
70%-130%	30%

One MS/MSD set was analyzed with every analytical batch. These criteria were met for all the MS/MSD in this data set. None of the metal data were qualified based on MS/MSD data.

3.4.9 Field Duplicates

For aqueous samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 30%. For aqueous samples, when one or both of the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater MQL. For solid matrix samples, when both the original and duplicate result are greater than 5 times the method quantitation limit (MQL), the Relative Percent Difference (RPD) was equal to or less than 50%. For solid matrix samples, when one or both the original and duplicate results are less than 5 times the MQL, the results agree within 3 times the greater MQL.

The results of this evaluation of all detected results are shown in the following table:

SDG	FIELD DUP ID	ANALYTE	ORIGINAL RESULT	DUPLICATE RESULT	QC RESULT	CRITERIA
17101674	17101674.05/06	Lead	0.001	0.0009	DIF: 0.0001	<=0.0005

All the metal field duplicates met data review criteria and did not require qualification.

3.5 POLYCHLORINATED BIPHENYLS

For Polychlorinated biphenyls (PCB) data, the following items are reviewed in this section:

- Initial Calibration
- Continuing Calibration
- GC Instrument Criteria
- Holding Time/Preservation Requirements
- Blanks
- Laboratory Control Samples
- Surrogates
- Matrix Spike/Matrix Spike Duplicates
- Field Duplicates

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

3.5.1 Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in the method. None of the PCB data were qualified based on initial calibration data.

3.5.2 Continuing Calibration

Continuing Calibrations were performed at the proper frequency and met the criteria specified in the method. None of the PCB data were qualified based on continuing calibration data.

3.5.3 Holding Times/Preservation Requirements

The maximum holding time from date of collection to date of extraction for PCB in solid matrix samples that have been kept at a temperature of 4°C + or- 2°C is 14 days. The maximum holding time from date of extraction to date of analysis for PCB in solid matrix samples is 40 days. These holding times were met for all the samples in this data set. None of the PCB data were qualified based on holding times.

3.5.4 Blanks

All associated blanks were free of all reported analytes in concentrations at or greater than the Sample Detection Limits (SDLs). None of the PCB data were qualified based on blank data.

3.5.5 Laboratory Control Samples (LCS)

The LCS review criteria for PCB data are as follows:

ACCURACY (%R)	PRECISION (RPD)
60%-140%	40%

One LCS/LCSD set was analyzed with every analytical batch. These criteria were met for all the LCS/LCSD in this data set. None of the PCB data were qualified based on LCS data.

3.5.6 Surrogates

The surrogate review criteria for PCB data are as follows:

ACCURACY (%R)
60%-140%

Each sample, standard and method blank was spiked with the appropriate surrogates. These criteria were met for all the samples in this data set. None of the PCB data were qualified based pm surrogate data.

3.5.7 Matrix Spike/Matrix Spike Duplicates (MS/MSD)

A project sample was not analyzed for PCBs as a MS/MSD.

3.5.8 Field Duplicates

A project sample from this data set was not analyzed as a field duplicate.

4. DATA USABILITY RELATIVE TO PROJECT OBJECTIVES

The purpose of this project was to determine the presence and extent of COCs in soil and groundwater based on historical and current property usage. This was accomplished by analyzing samples for potential COCs. The following is a discussion of qualified data and the potential impacts these qualified results have on the project objective.

Volatile Accuracy – The following chemical of concern volatile surrogate did not meet data review criteria and resulted in the qualification of data:

SDG	SAMPLE ID	HIGHEST ASSOC. SURR. %R	ASSOC. COMPOUND THAT WAS QUALIFIED	ASSOC RESULT	PCL	NOTE
17101348	17101348.03	314	Toluene	0.003 mg/kg	8.2 mg/kg	1
			Xylene	0.005 mg/kg	120 mg/kg	1
SDG	**SAMPLE ID**	**HIGHEST ASSOC. SURR. %R**	**ASSOC. COMPOUND THAT WAS QUALIFIED**	**ASSOC RESULT**	**PST Action Level**	**NOTE**
17101525	17101525.05	402	Benzene	0.874 mg/kg	0.12 mg/kg	2
			Ethylbenzene	3.78 mg/kg	36.8 mg/kg	1
			Toluene	3.54 mg/kg	39.1 mg/kg	1
			Xylene, total	19.4 mg/kg	117 mg/kg	1
	17101525.06	189	Benzene	7.58 mg/kg	0.12 mg/kg	2
			Ethylbenzene	28.6 mg/kg	36.8 mg/kg	1
			Toluene	45.9 mg/kg	39.1 mg/kg	2
			Xylene, total	142.1 mg/kg	117 mg/kg	2

NOTES:

1. The interpretation of the listed sample result, as being below the PCL/action level, is not impacted by the surrogate recoveries because the sample results is below the PCL/action level and the surrogate result indicates a high bias.

2. The interpretation of the listed sample result, as being above the action level, is not impacted by the high surrogate recovery because the result would still be above the action level when the bias is taken into account.

The following volatile LCS results did not meet data review criteria:

SDG	LCS/LCSD ID	COMPOUND	LCS %R	LCSD %R	ASSOC RESULT	PCL (no PST Action Level published)	NOTE
17101520	Qb17102622	4-Isopropyltoluene	47	46	0.003 mg/l	2.4 mg/l	1

NOTES:

3. The interpretation of the listed sample result, as being below the PCL, is not impacted by the LCS/LCSD recoveries because the sample results would still be below the PCL when the low recoveries are taken into account.

APPENDIX A

Table A-1

Data Qualifier Definitions

Qualifier	Definitions
U	The analyte was analyzed for but was not detected above the level of the associated value. The associate value is the Sample Detection Limit.
J	The associated value is an estimated quantity.
UJ	The material was analyzed for but was not detected above the reported Sample Detection Limit. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. (Note: Analyte may or may not be present.)

Table A-2

Data Bias Codes

Qualifier Code	Data Quality Condition Resulting In Assigned Qualification
Bias Codes	
H	Bias in sample result likely to be high
L	Bias in sample result likely to be low

Laboratory Analysis Report

Total Number of Pages: 82

Job ID : 17101348

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
DRA Phase II - Block 333

Report To :

Client Name: Weston Solutions
Attn: Dawn Denham
Client Address: 5599 San Felipe Suite 700
City, State, Zip: Houston, Texas, 77056

P.O.#.:
Sample Collected By: Rachel Omerza
Date Collected: 10/23/17

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
Trip Blank - 1	Water	17101348.01
SB-3-6-8	Soil	17101348.02
SB-3-8-10	Soil	17101348.03
SB-1-3-5	Soil	17101348.04
SB-1-8-10	Soil	17101348.05
SB-2-3-5	Soil	17101348.06
SB-2-8-10	Soil	17101348.07
SB-4-4-5	Soil	17101348.08
SB-4-9-10	Soil	17101348.09
SB-6-3-5	Soil	17101348.11
SB-6-8-10	Soil	17101348.12
SB-7-3-5	Soil	17101348.13
SB-7-8-10	Soil	17101348.14
Dup-1	Soil	17101348.15
MW-1-3-5	Soil	17101348.16
MW-1-34-36	Soil	17101348.17

Alisha Hughes

Released By: Alisha Hughes
Title: Project Manager
Date: 11/20/2017

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

Date Received : 10/23/2017 16:44

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17101348

Date: 11/20/2017

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

J	Estimation. Below calibration range but above MDL.
L1	Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.
L2	Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.
M1	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits due to matrix interference. "The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
M2	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference."The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
M8	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.
R4	LCS/LCSD RPD exceeds control limit. Recovery meets acceptance criteria.
S1	Surrogate recovery is above control limit. Results may be biased high.
U	Undetected at SDL (Sample Detection Limit).
V1	CCV recovery is above acceptance limits. This target analyte was not detected in the sample.
V11	CCV recovery is below acceptance limits.

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank - 1
A&B Job Sample ID: 17101348.01
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/23/2017
QC Batch ID:	Qb17102568	Date Received	10/23/2017 16:44
Prep Method:	SW-846 5030C	Date Prepared	10/24/2017 13:00
Prepared By:	Jdongre		
Prep Batch ID	PB17102549		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/25/17 11:31
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/25/17 11:31
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/25/17 11:31
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31

NKJ 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank - 1
A&B Job Sample ID: 17101348.01
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Volatile Organic Compounds**
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102568
Prep Method: SW-846 5030C
Prepared By: Jdongre
Prep Batch ID PB17102549
Analyst Initial JKD

Sample Matrix Water
Date Collected 10/23/2017
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 13:00
% Moisture

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/25/17 11:31
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/25/17 11:31
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/25/17 11:31
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/25/17 11:31
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/25/17 11:31
17060-07-0	1,2-Dichloroethane-d4	111					70	130	%	1	10/25/17 11:31
1868-53-7	Dibromofluoromethan	92.7					70	130	%	1	10/25/17 11:31
2037-26-5	Toluene-d8(surr)	97.4					70	130	%	1	10/25/17 11:31
460-00-4	p-Bromofluorobenzen	95.2					70	130	%	1	10/25/17 11:31

MK 11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-3-6-8
A&B Job Sample ID: 17101348.02

Date: 11/20/2017

Client Name:	Weston Solutions
Project Name:	DRA Phase II - Block 333

Attn: Dawn Denham

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 09:00
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	23.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	23.4					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-3-6-8
A&B Job Sample ID: 17101348.02
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 09:00
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 23.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.84	10/24/17 17:54
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.84	10/24/17 17:54
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.84	10/24/17 17:54
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.84	10/24/17 17:54
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.84	10/24/17 17:54
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.84	10/24/17 17:54
17060-07-0	1,2-Dichloroethane-d4	104					70	130	%	0.84	10/24/17 17:54
1868-53-7	Dibromofluoromethan	104					70	130	%	0.84	10/24/17 17:54
2037-26-5	Toluene-d8(surr)	97.9					70	130	%	0.84	10/24/17 17:54
460-00-4	p-Bromofluorobenzen	125					70	130	%	0.84	10/24/17 17:54

11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-3-6-8
A&B Job Sample ID: 17101348.02
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 09:00
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 23.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	48		30.9	32.6	23.7	25	1000	mg/Kg	1	10/25/17 12:29
TPH-1005-2	>C12-C28	< 26.5	U	26.5	32.6	20.3	25	1000	mg/Kg	1	10/25/17 12:29
TPH-1005-4	>C28-C35	70.4		23.1	32.6	17.7	25	1000	mg/Kg	1	10/25/17 12:29
	Total C6-C35	118.4					----	----	mg/Kg	1	10/25/17 12:29
111-85-3	1-Chlorooctane(surr)	140					60	143	%	1	10/25/17 12:29
3386-33-2	Chlorooctadecane(sur	125					60	150	%	1	10/25/17 12:29

JKT
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-3-8-10
A&B Job Sample ID: 17101348.03

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 09:20
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	23.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	23.9					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-3-8-10
A&B Job Sample ID: 17101348.03
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 09:20
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 23.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.90	10/24/17 18:28
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.90	10/24/17 18:28
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.012	0.001	0.01	0.1	mg/Kg	0.90	10/24/17 18:28
95-47-6	o-Xylene	0.004	J H	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.90	10/24/17 18:28
108-88-3	Toluene	0.003	J H	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.90	10/24/17 18:28
1330-20-7	Xylenes	0.004	J H	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.90	10/24/17 18:28
17060-07-0	1,2-Dichloroethane-d4	104					70	130	%	0.90	10/24/17 18:28
1868-53-7	Dibromofluoromethan	103					70	130	%	0.90	10/24/17 18:28
2037-26-5	Toluene-d8(surr)	100					70	130	%	0.90	10/24/17 18:28
460-00-4	p-Bromofluorobenzen	314	S1				70	130	%	0.90	10/24/17 18:28

JKD
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-3-8-10
A&B Job Sample ID: 17101348.03
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 09:20
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 23.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 31.1	U	31.1	32.9	23.7	25	1000	mg/Kg	1	10/25/17 12:57
TPH-1005-2	>C12-C28	< 26.7	U	26.7	32.9	20.3	25	1000	mg/Kg	1	10/25/17 12:57
TPH-1005-4	>C28-C35	< 23.3	U	23.3	32.9	17.7	25	1000	mg/Kg	1	10/25/17 12:57
	Total C6-C35	< 31.1					----	----	mg/Kg	1	10/25/17 12:57
111-85-3	1-Chlorooctane(surr)	135					60	143	%	1	10/25/17 12:57
3386-33-2	Chlorooctadecane(sur	130					60	150	%	1	10/25/17 12:57

MKJ 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-1-3-5
A&B Job Sample ID: 17101348.04
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 09:50
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	19.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	19.6					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-1-3-5
A&B Job Sample ID: 17101348.04
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 09:50
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 19.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.88	10/24/17 19:03
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.88	10/24/17 19:03
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.88	10/24/17 19:03
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.88	10/24/17 19:03
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.88	10/24/17 19:03
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.88	10/24/17 19:03
17060-07-0	1,2-Dichloroethane-d4	104					70	130	%	0.88	10/24/17 19:03
1868-53-7	Dibromofluoromethan	102					70	130	%	0.88	10/24/17 19:03
2037-26-5	Toluene-d8(surr)	103					70	130	%	0.88	10/24/17 19:03
460-00-4	p-Bromofluorobenzen	114					70	130	%	0.88	10/24/17 19:03

JKJ 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-1-3-5
A&B Job Sample ID: 17101348.04
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/23/2017 09:50
QC Batch ID:	Qb17102804	Date Received	10/23/2017 16:44
Prep Method:	TX 1005	Date Prepared	10/25/2017 08:50
Prepared By:	LLe		
Prep Batch ID	PB17102802		
Analyst Initial	LL	% Moisture	19.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 29.5	U	29.5	31.1	23.7	25	1000	mg/Kg	1	10/25/17 13:25
TPH-1005-2	>C12-C28	< 25.2	U	25.2	31.1	20.3	25	1000	mg/Kg	1	10/25/17 13:25
TPH-1005-4	>C28-C35	< 22	U	22	31.1	17.7	25	1000	mg/Kg	1	10/25/17 13:25
	Total C6-C35	< 29.5					----	----	mg/Kg	1	10/25/17 13:25
111-85-3	1-Chlorooctane(surr)	125					60	143	%	1	10/25/17 13:25
3386-33-2	Chlorooctadecane(sur	121					60	150	%	1	10/25/17 13:25

MC
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-1-8-10
A&B Job Sample ID: 17101348.05
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 10:05
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	22.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	22.9					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-1-8-10
A&B Job Sample ID: 17101348.05
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 10:05
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 22.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	0.009		0.001	0.006	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 19:38
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 19:38
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.85	10/24/17 19:38
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 19:38
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 19:38
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.85	10/24/17 19:38
17060-07-0	1,2-Dichloroethane-d4	101					70	130	%	0.85	10/24/17 19:38
1868-53-7	Dibromofluoromethan	95.5					70	130	%	0.85	10/24/17 19:38
2037-26-5	Toluene-d8(surr)	104					70	130	%	0.85	10/24/17 19:38
460-00-4	p-Bromofluorobenzen	106					70	130	%	0.85	10/24/17 19:38

JKD
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-1-8-10
A&B Job Sample ID: 17101348.05
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 10:05
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 22.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 30.7	U	30.7	32.4	23.7	25	1000	mg/Kg	1	10/25/17 13:53
TPH-1005-2	>C12-C28	< 26.3	U	26.3	32.4	20.3	25	1000	mg/Kg	1	10/25/17 13:53
TPH-1005-4	>C28-C35	< 23	U	23	32.4	17.7	25	1000	mg/Kg	1	10/25/17 13:53
	Total C6-C35	< 30.7					----	----	mg/Kg	1	10/25/17 13:53
111-85-3	1-Chlorooctane(surr)	132					60	143	%	1	10/25/17 13:53
3386-33-2	Chlorooctadecane(sur	127					60	150	%	1	10/25/17 13:53

MKJ 11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-2-3-5
A&B Job Sample ID: 17101348.06
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 10:30
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	20.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	20.1					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-2-3-5
A&B Job Sample ID: 17101348.06

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 10:30
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 20.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.89	10/24/17 20:13
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.89	10/24/17 20:13
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.89	10/24/17 20:13
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.89	10/24/17 20:13
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.89	10/24/17 20:13
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.89	10/24/17 20:13
17060-07-0	1,2-Dichloroethane-d4	100					70	130	%	0.89	10/24/17 20:13
1868-53-7	Dibromofluoromethan	101					70	130	%	0.89	10/24/17 20:13
2037-26-5	Toluene-d8(surr)	100					70	130	%	0.89	10/24/17 20:13
460-00-4	p-Bromofluorobenzen	108					70	130	%	0.89	10/24/17 20:13

MKJ 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-2-3-5
A&B Job Sample ID: 17101348.06
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 10:30
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 20.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 29.7	U	29.7	31.3	23.7	25	1000	mg/Kg	1	10/25/17 14:21
TPH-1005-2	>C12-C28	< 25.4	U	25.4	31.3	20.3	25	1000	mg/Kg	1	10/25/17 14:21
TPH-1005-4	>C28-C35	< 22.2	U	22.2	31.3	17.7	25	1000	mg/Kg	1	10/25/17 14:21
	Total C6-C35	< 29.7					----	----	mg/Kg	1	10/25/17 14:21
111-85-3	1-Chlorooctane(surr)	115					60	143	%	1	10/25/17 14:21
3386-33-2	Chlorooctadecane(sur	111					60	150	%	1	10/25/17 14:21

WKT
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-2-8-10
A&B Job Sample ID: 17101348.07
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **% Moisture**
Analytical Method: SM 2540G
QC Batch ID: Qb17102579
Prep Method: SM 2540G
Prepared By: Alomeda
Prep Batch ID PB17102551
Analyst Initial AL

Sample Matrix Soil
Date Collected 10/23/2017 10:45
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 15:30
% Moisture 21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	21.3					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-2-8-10
A&B Job Sample ID: 17101348.07
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:		Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	10/23/2017 10:45
QC Batch ID:	Qb17102454	Date Received	10/23/2017 16:44
Prep Method:	SW-846 5035A	Date Prepared	10/24/2017 11:15
Prepared By:	Jdongre		
Prep Batch ID	PB17102420		
Analyst Initial	JKD	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/24/17 20:47
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/24/17 20:47
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.86	10/24/17 20:47
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/24/17 20:47
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/24/17 20:47
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.86	10/24/17 20:47
17060-07-0	1,2-Dichloroethane-d4	98.1					70	130	%	0.86	10/24/17 20:47
1868-53-7	Dibromofluoromethan	97.1					70	130	%	0.86	10/24/17 20:47
2037-26-5	Toluene-d8(surr)	97.7					70	130	%	0.86	10/24/17 20:47
460-00-4	p-Bromofluorobenzen	109					70	130	%	0.86	10/24/17 20:47

JKD
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-2-8-10
A&B Job Sample ID: 17101348.07
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 10:45
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 30.1	U	30.1	31.8	23.7	25	1000	mg/Kg	1	10/25/17 16:13
TPH-1005-2	>C12-C28	< 25.8	U	25.8	31.8	20.3	25	1000	mg/Kg	1	10/25/17 16:13
TPH-1005-4	>C28-C35	< 22.5	U	22.5	31.8	17.7	25	1000	mg/Kg	1	10/25/17 16:13
	Total C6-C35	< 30.1					----	----	mg/Kg	1	10/25/17 16:13
111-85-3	1-Chlorooctane(surr)	126					60	143	%	1	10/25/17 16:13
3386-33-2	Chlorooctadecane(sur	122					60	150	%	1	10/25/17 16:13

11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-4-4-5
A&B Job Sample ID: 17101348.08
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **% Moisture**
Analytical Method: SM 2540G
QC Batch ID: Qb17102579
Prep Method: SM 2540G
Prepared By: Alomeda
Prep Batch ID PB17102551
Analyst Initial AL

Sample Matrix Soil
Date Collected 10/23/2017 11:45
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 15:30
% Moisture 22.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	22.5					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-4-4-5
A&B Job Sample ID: 17101348.08
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 11:45
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15

% Moisture 22.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U,V11	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
123-91-1	1,4-Dioxane	< 0.082	U,V11	0.082	0.351	0.075	0.32	1.6	mg/Kg	0.85	10/24/17 22:31
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
99-87-6	4-Isopropyltoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-25-2	Bromoform	< 0.00055	U	0.00055	0.005	0.0005	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
74-83-9	Bromomethane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-15-0	Carbon disulfide	< 0.002	U,V11	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-00-3	Chloroethane	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31

Soil results reported on dry weight basis

MKJ 11/28/17

LABORATORY TEST RESULTS

Client Sample ID: SB-4-4-5
A&B Job Sample ID: 17101348.08
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 11:45
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15

% Moisture 22.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
10061-01-5	cis-1,3-Dichloroprope	< 0.00044	U	0.00044	0.005	0.0004	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.85	10/24/17 22:31
78-93-3	MEK	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
91-20-3	Naphthalene	< 0.00044	U,V11	0.00044	0.005	0.0004	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
10061-02-6	trans-1,3-Dichloropro	< 0.00044	U	0.00044	0.005	0.0004	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-69-4	Trichlorofluoromethan	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.85	10/24/17 22:31
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.85	10/24/17 22:31
17060-07-0	1,2-Dichloroethane-d4	112					70	130	%	0.85	10/24/17 22:31
1868-53-7	Dibromofluoromethan	107					70	130	%	0.85	10/24/17 22:31
2037-26-5	Toluene-d8(surr)	101					70	130	%	0.85	10/24/17 22:31
460-00-4	p-Bromofluorobenzen	104					70	130	%	0.85	10/24/17 22:31

JKD
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-4-4-5
A&B Job Sample ID: 17101348.08
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/23/2017 11:45
QC Batch ID:	Qb17102804	Date Received	10/23/2017 16:44
Prep Method:	TX 1005	Date Prepared	10/25/2017 08:50
Prepared By:	LLe		
Prep Batch ID	PB17102802		
Analyst Initial	LL	% Moisture	22.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 30.6	U	30.6	32.3	23.7	25	1000	mg/Kg	1	10/25/17 16:41
TPH-1005-2	>C12-C28	< 26.2	U	26.2	32.3	20.3	25	1000	mg/Kg	1	10/25/17 16:41
TPH-1005-4	>C28-C35	< 22.8	U	22.8	32.3	17.7	25	1000	mg/Kg	1	10/25/17 16:41
	Total C6-C35	< 30.6					----	-----	mg/Kg	1	10/25/17 16:41
111-85-3	1-Chlorooctane(surr)	135					60	143	%	1	10/25/17 16:41
3386-33-2	Chlorooctadecane(sur	132					60	150	%	1	10/25/17 16:41

MK 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-4-9-10
A&B Job Sample ID: 17101348.09
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 12:00
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	22.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	22.1					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-4-9-10
A&B Job Sample ID: 17101348.09
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 12:00
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 22.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U,V11	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
123-91-1	1,4-Dioxane	< 0.085	U,V11	0.085	0.361	0.075	0.32	1.6	mg/Kg	0.88	10/25/17 08:59
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
99-87-6	4-Isopropyltoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
108-86-1	Bromobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-25-2	Bromoform	< 0.00056	U	0.00056	0.006	0.0005	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
74-83-9	Bromomethane	< 0.001	U,V1	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-15-0	Carbon disulfide	< 0.002	U,V11	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-00-3	Chloroethane	< 0.003	U	0.003	0.006	0.003	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
67-66-3	Chloroform	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59

Soil results reported on dry weight basis

11-28-17

LABORATORY TEST RESULTS

Client Sample ID: SB-4-9-10
A&B Job Sample ID: 17101348.09
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 12:00
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 22.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U,V1	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
10061-01-5	cis-1,3-Dichloroprope	< 0.00045	U	0.00045	0.006	0.0004	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
74-95-3	Dibromomethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.88	10/25/17 08:59
78-93-3	MEK	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-09-2	Methylene chloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
91-20-3	Naphthalene	< 0.00045	U,V11	0.00045	0.006	0.0004	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
100-42-5	Styrene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
10061-02-6	trans-1,3-Dichloropro	< 0.00045	U	0.00045	0.006	0.0004	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-69-4	Trichlorofluoromethan	< 0.001	U,V1	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.88	10/25/17 08:59
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.88	10/25/17 08:59
17060-07-0	1,2-Dichloroethane-d4	109					70	130	%	0.88	10/25/17 08:59
1868-53-7	Dibromofluoromethan	108					70	130	%	0.88	10/25/17 08:59
2037-26-5	Toluene-d8(surr)	104					70	130	%	0.88	10/25/17 08:59
460-00-4	p-Bromofluorobenzen	106					70	130	%	0.88	10/25/17 08:59

JKD
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-4-9-10
A&B Job Sample ID: 17101348.09

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 12:00
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 22.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 30.4	U	30.4	32.1	23.7	25	1000	mg/Kg	1	10/25/17 17:09
TPH-1005-2	>C12-C28	< 26.1	U	26.1	32.1	20.3	25	1000	mg/Kg	1	10/25/17 17:09
TPH-1005-4	>C28-C35	< 22.7	U	22.7	32.1	17.7	25	1000	mg/Kg	1	10/25/17 17:09
	Total C6-C35	< 30.4					----	----	mg/Kg	1	10/25/17 17:09
111-85-3	1-Chlorooctane(surr)	118					60	143	%	1	10/25/17 17:09
3386-33-2	Chlorooctadecane(sur	115					60	150	%	1	10/25/17 17:09

MKT 11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-6-3-5
A&B Job Sample ID: 17101348.11
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 12:40
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	19.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	19.4					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-6-3-5
A&B Job Sample ID: 17101348.11
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 12:40
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 19.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.93	10/25/17 09:32
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.93	10/25/17 09:32
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.012	0.001	0.01	0.1	mg/Kg	0.93	10/25/17 09:32
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.93	10/25/17 09:32
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.93	10/25/17 09:32
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.93	10/25/17 09:32
17060-07-0	1,2-Dichloroethane-d4	110					70	130	%	0.93	10/25/17 09:32
1868-53-7	Dibromofluoromethan	106					70	130	%	0.93	10/25/17 09:32
2037-26-5	Toluene-d8(surr)	102					70	130	%	0.93	10/25/17 09:32
460-00-4	p-Bromofluorobenzen	108					70	130	%	0.93	10/25/17 09:32

JKD 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-6-3-5
A&B Job Sample ID: 17101348.11
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802

Sample Matrix Soil
Date Collected 10/23/2017 12:40
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50

Analyst Initial LL

% Moisture 19.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 29.4	U	29.4	31	23.7	25	1000	mg/Kg	1	10/25/17 17:37
TPH-1005-2	>C12-C28	< 25.2	U	25.2	31	20.3	25	1000	mg/Kg	1	10/25/17 17:37
TPH-1005-4	>C28-C35	< 22	U	22	31	17.7	25	1000	mg/Kg	1	10/25/17 17:37
	Total C6-C35	< 29.4					----	----	mg/Kg	1	10/25/17 17:37
111-85-3	1-Chlorooctane(surr)	128					60	143	%	1	10/25/17 17:37
3386-33-2	Chlorooctadecane(sur	123					60	150	%	1	10/25/17 17:37

MKT
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-6-8-10
A&B Job Sample ID: 17101348.12

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 13:00
QC Batch ID:	Qb17102579	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	19.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	19.4					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-6-8-10
A&B Job Sample ID: 17101348.12
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 13:00
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 19.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 10:06
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 10:06
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.86	10/25/17 10:06
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 10:06
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 10:06
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.86	10/25/17 10:06
17060-07-0	1,2-Dichloroethane-d4	113					70	130	%	0.86	10/25/17 10:06
1868-53-7	Dibromofluoromethan	111					70	130	%	0.86	10/25/17 10:06
2037-26-5	Toluene-d8(surr)	100					70	130	%	0.86	10/25/17 10:06
460-00-4	p-Bromofluorobenzen	110					70	130	%	0.86	10/25/17 10:06

JKD
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-6-8-10
A&B Job Sample ID: 17101348.12
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/23/2017 13:00
QC Batch ID:	Qb17102804	Date Received	10/23/2017 16:44
Prep Method:	TX 1005	Date Prepared	10/25/2017 08:50
Prepared By:	LLe		
Prep Batch ID	PB17102802		
Analyst Initial	LL	% Moisture	19.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 29.4	U	29.4	31	23.7	25	1000	mg/Kg	1	10/25/17 18:06
TPH-1005-2	>C12-C28	< 25.2	U	25.2	31	20.3	25	1000	mg/Kg	1	10/25/17 18:06
TPH-1005-4	>C28-C35	< 22	U	22	31	17.7	25	1000	mg/Kg	1	10/25/17 18:06
	Total C6-C35	< 29.4					----	----	mg/Kg	1	10/25/17 18:06
111-85-3	1-Chlorooctane(surr)	120					60	143	%	1	10/25/17 18:06
3386-33-2	Chlorooctadecane(sur	116					60	150	%	1	10/25/17 18:06

JKJ 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-7-3-5
A&B Job Sample ID: 17101348.13

Date: 11/20/2017

Client Name:	Weston Solutions		Attn: Dawn Denham
Project Name:	DRA Phase II - Block 333		

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 13:50
QC Batch ID:	Qb17102580	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	17.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	17.6					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-7-3-5
A&B Job Sample ID: 17101348.13

Date: 11/20/2017

Client Name: Weston Solutions
Project Name: DRA Phase II - Block 333

Attn: Dawn Denham

Test Description:		Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	10/23/2017 13:50
QC Batch ID:	Qb17102454	Date Received	10/23/2017 16:44
Prep Method:	SW-846 5035A	Date Prepared	10/24/2017 11:15
Prepared By:	Jdongre		
Prep Batch ID	PB17102420		
Analyst Initial	JKD	% Moisture	17.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/25/17 10:40
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/25/17 10:40
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.91	10/25/17 10:40
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/25/17 10:40
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/25/17 10:40
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.91	10/25/17 10:40
17060-07-0	1,2-Dichloroethane-d4	115					70	130	%	0.91	10/25/17 10:40
1868-53-7	Dibromofluoromethan	106					70	130	%	0.91	10/25/17 10:40
2037-26-5	Toluene-d8(surr)	103					70	130	%	0.91	10/25/17 10:40
460-00-4	p-Bromofluorobenzen	111					70	130	%	0.91	10/25/17 10:40

JKD 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-7-3-5
A&B Job Sample ID: 17101348.13
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 13:50
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 17.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 28.8	U	28.8	30.3	23.7	25	1000	mg/Kg	1	10/25/17 18:34
TPH-1005-2	>C12-C28	112		24.6	30.3	20.3	25	1000	mg/Kg	1	10/25/17 18:34
TPH-1005-4	>C28-C35	188		21.5	30.3	17.7	25	1000	mg/Kg	1	10/25/17 18:34
	Total C6-C35	300					----	----	mg/Kg	1	10/25/17 18:34
111-85-3	1-Chlorooctane(surr)	103					60	143	%	1	10/25/17 18:34
3386-33-2	Chlorooctadecane(sur	99.5					60	150	%	1	10/25/17 18:34

MKJ
11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-7-8-10
A&B Job Sample ID: 17101348.14

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 14:00
QC Batch ID:	Qb17102580	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	21.3					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-7-8-10
A&B Job Sample ID: 17101348.14

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 14:00
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15

% Moisture 21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 11:14
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 11:14
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.86	10/25/17 11:14
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 11:14
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.86	10/25/17 11:14
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.86	10/25/17 11:14
17060-07-0	1,2-Dichloroethane-d4	116					70	130	%	0.86	10/25/17 11:14
1868-53-7	Dibromofluoromethan	105					70	130	%	0.86	10/25/17 11:14
2037-26-5	Toluene-d8(surr)	97.3					70	130	%	0.86	10/25/17 11:14
460-00-4	p-Bromofluorobenzen	99.1					70	130	%	0.86	10/25/17 11:14

JKD
11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: SB-7-8-10
A&B Job Sample ID: 17101348.14
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 14:00
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 21.3

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 30.1	U	30.1	31.8	23.7	25	1000	mg/Kg	1	10/25/17 19:02
TPH-1005-2	>C12-C28	< 25.8	U	25.8	31.8	20.3	25	1000	mg/Kg	1	10/25/17 19:02
TPH-1005-4	>C28-C35	< 22.5	U	22.5	31.8	17.7	25	1000	mg/Kg	1	10/25/17 19:02
	Total C6-C35	< 30.1					----	----	mg/Kg	1	10/25/17 19:02
111-85-3	1-Chlorooctane(surr)	135					60	143	%	1	10/25/17 19:02
3386-33-2	Chlorooctadecane(sur	131					60	150	%	1	10/25/17 19:02

nkl 11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Dup-1
A&B Job Sample ID: 17101348.15

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham

Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 00:00
QC Batch ID:	Qb17102580	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	22.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	22.4					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Dup-1
A&B Job Sample ID: 17101348.15

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 00:00
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15

% Moisture 22.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.99	10/25/17 11:48
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.99	10/25/17 11:48
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.013	0.001	0.01	0.1	mg/Kg	0.99	10/25/17 11:48
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.99	10/25/17 11:48
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.99	10/25/17 11:48
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.99	10/25/17 11:48
17060-07-0	1,2-Dichloroethane-d4	119					70	130	%	0.99	10/25/17 11:48
1868-53-7	Dibromofluoromethan	111					70	130	%	0.99	10/25/17 11:48
2037-26-5	Toluene-d8(surr)	99.6					70	130	%	0.99	10/25/17 11:48
460-00-4	p-Bromofluorobenzen	104					70	130	%	0.99	10/25/17 11:48

JKD 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Dup-1
A&B Job Sample ID: 17101348.15
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 00:00
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 22.4

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 30.5	U	30.5	32.2	23.7	25	1000	mg/Kg	1	10/25/17 19:30
TPH-1005-2	>C12-C28	< 26.2	U	26.2	32.2	20.3	25	1000	mg/Kg	1	10/25/17 19:30
TPH-1005-4	>C28-C35	< 22.8	U	22.8	32.2	17.7	25	1000	mg/Kg	1	10/25/17 19:30
	Total C6-C35	< 30.5					----	----	mg/Kg	1	10/25/17 19:30
111-85-3	1-Chlorooctane(surr)	132					60	143	%	1	10/25/17 19:30
3386-33-2	Chlorooctadecane(sur	129					60	150	%	1	10/25/17 19:30

MKJ
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-3-5
A&B Job Sample ID: 17101348.16

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 15:35
QC Batch ID:	Qb17102580	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	18.0

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	18					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-3-5
A&B Job Sample ID: 17101348.16
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 15:35
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 18.0

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
71-55-6	1,1,1-Trichloroethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
79-34-5	1,1,2,2-Tetrachloroet	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
79-00-5	1,1,2-Trichloroethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-34-3	1,1-Dichloroethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
563-58-6	1,1-Dichloropropene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
96-18-4	1,2,3-Trichloropropan	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
120-82-1	1,2,4-Trichlorobenzen	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
95-63-6	1,2,4-Trimethylbenze	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
96-12-8	1,2-Dibromo-3-chloro	< 0.00099	U,V11	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
106-93-4	1,2-Dibromoethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
95-50-1	1,2-Dichlorobenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
107-06-2	1,2-Dichloroethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
78-87-5	1,2-Dichloropropane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
108-67-8	1,3,5-Trimethylbenze	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
541-73-1	1,3-Dichlorobenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
142-28-9	1,3-Dichloropropane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
106-46-7	1,4-Dichlorobenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
123-91-1	1,4-Dioxane	< 0.074	U,V11	0.074	0.316	0.075	0.32	1.6	mg/Kg	0.81	10/25/17 12:23
594-20-7	2,2-Dichloropropane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
95-49-8	2-Chlorotoluene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
106-43-4	4-Chlorotoluene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
99-87-6	4-Isopropyltoluene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
71-43-2	Benzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
108-86-1	Bromobenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
74-97-5	Bromochloromethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-27-4	Bromodichloromethan	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-25-2	Bromoform	< 0.00049	U	0.00049	0.005	0.0005	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
74-83-9	Bromomethane	< 0.00099	U,V1	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-15-0	Carbon disulfide	< 0.002	U,V11	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
56-23-5	Carbon tetrachloride	< 0.00099	U,V1	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
108-90-7	Chlorobenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-00-3	Chloroethane	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
67-66-3	Chloroform	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23

MKT 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-3-5
A&B Job Sample ID: 17101348.16
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 15:35
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 18.0

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.00099	U,V1	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
156-59-2	cis-1,2-Dichloroethyle	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
10061-01-5	cis-1,3-Dichloroprope	< 0.0004	U	0.0004	0.005	0.0004	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
124-48-1	Dibromochloromethan	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
74-95-3	Dibromomethane	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
100-41-4	Ethylbenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
98-82-8	Isopropylbenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
108-38-3&106-4	m- & p-Xylenes	< 0.00099	U	0.00099	0.01	0.001	0.01	0.1	mg/Kg	0.81	10/25/17 12:23
78-93-3	MEK	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-09-2	Methylene chloride	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
91-20-3	Naphthalene	< 0.0004	U,V11	0.0004	0.005	0.0004	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
104-51-8	n-Butylbenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
103-65-1	n-Propylbenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
95-47-6	o-Xylene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
135-98-8	sec-Butylbenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
100-42-5	Styrene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
98-06-6	t-butylbenzene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
127-18-4	Tetrachloroethylene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
108-88-3	Toluene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
156-60-5	trans-1,2-Dichloroethy	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
10061-02-6	trans-1,3-Dichloropro	< 0.0004	U	0.0004	0.005	0.0004	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
79-01-6	Trichloroethylene	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-69-4	Trichlorofluoromethan	< 0.00099	U,V1	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
75-01-4	Vinyl Chloride	< 0.00099	U	0.00099	0.005	0.001	0.005	0.05	mg/Kg	0.81	10/25/17 12:23
1330-20-7	Xylenes	< 0.00099	U	0.00099	0.005	0.001	0.005	0.15	mg/Kg	0.81	10/25/17 12:23
17060-07-0	1,2-Dichloroethane-d4	103					70	130	%	0.81	10/25/17 12:23
1868-53-7	Dibromofluoromethan	99					70	130	%	0.81	10/25/17 12:23
2037-26-5	Toluene-d8(surr)	95.5					70	130	%	0.81	10/25/17 12:23
460-00-4	p-Bromofluorobenzen	104					70	130	%	0.81	10/25/17 12:23

JKD 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-3-5
A&B Job Sample ID: 17101348.16
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 15:35
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 18.0

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 28.9	U	28.9	30.5	23.7	25	1000	mg/Kg	1	10/25/17 19:58
TPH-1005-2	>C12-C28	< 24.8	U	24.8	30.5	20.3	25	1000	mg/Kg	1	10/25/17 19:58
TPH-1005-4	>C28-C35	< 21.6	U	21.6	30.5	17.7	25	1000	mg/Kg	1	10/25/17 19:58
	Total C6-C35	< 28.9					----	----	mg/Kg	1	10/25/17 19:58
111-85-3	1-Chlorooctane(surr)	113					60	143	%	1	10/25/17 19:58
3386-33-2	Chlorooctadecane(sur	109					60	150	%	1	10/25/17 19:58

MKT
11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-34-36
A&B Job Sample ID: 17101348.17

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/23/2017 16:15
QC Batch ID:	Qb17102580	Date Received	10/23/2017 16:44
Prep Method:	SM 2540G	Date Prepared	10/25/2017 15:30
Prepared By:	Alomeda		
Prep Batch ID	PB17102551		
Analyst Initial	AL	% Moisture	15.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	15.9					----	----	%	1	10/25/17 16:00

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-34-36
A&B Job Sample ID: 17101348.17
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 16:15
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 15.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
71-55-6	1,1,1-Trichloroethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
79-34-5	1,1,2,2-Tetrachloroet	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
79-00-5	1,1,2-Trichloroethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-34-3	1,1-Dichloroethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
563-58-6	1,1-Dichloropropene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
96-18-4	1,2,3-Trichloropropan	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
120-82-1	1,2,4-Trichlorobenzen	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
95-63-6	1,2,4-Trimethylbenze	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
96-12-8	1,2-Dibromo-3-chloro	< 0.00092	U,V11	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
106-93-4	1,2-Dibromoethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
95-50-1	1,2-Dichlorobenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
107-06-2	1,2-Dichloroethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
78-87-5	1,2-Dichloropropane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
108-67-8	1,3,5-Trimethylbenze	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
541-73-1	1,3-Dichlorobenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
142-28-9	1,3-Dichloropropane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
106-46-7	1,4-Dichlorobenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
123-91-1	1,4-Dioxane	< 0.069	U,V11	0.069	0.293	0.075	0.32	1.6	mg/Kg	0.77	10/25/17 12:57
594-20-7	2,2-Dichloropropane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
95-49-8	2-Chlorotoluene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
106-43-4	4-Chlorotoluene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
99-87-6	4-Isopropyltoluene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
71-43-2	Benzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
108-86-1	Bromobenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
74-97-5	Bromochloromethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-27-4	Bromodichloromethan	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-25-2	Bromoform	< 0.00046	U	0.00046	0.005	0.0005	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
74-83-9	Bromomethane	< 0.00092	U,V1	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-15-0	Carbon disulfide	< 0.002	U,V11	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
56-23-5	Carbon tetrachloride	< 0.00092	U,V1	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
108-90-7	Chlorobenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-00-3	Chloroethane	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
67-66-3	Chloroform	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57

JKD 11-28-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-34-36
A&B Job Sample ID: 17101348.17
Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17102454
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17102420
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/23/2017 16:15
Date Received 10/23/2017 16:44
Date Prepared 10/24/2017 11:15
% Moisture 15.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.00092	U,V1	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
156-59-2	cis-1,2-Dichloroethyle	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
10061-01-5	cis-1,3-Dichloroprope	< 0.00037	U	0.00037	0.005	0.0004	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
124-48-1	Dibromochloromethan	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
74-95-3	Dibromomethane	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
100-41-4	Ethylbenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
98-82-8	Isopropylbenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
108-38-3&106-4	m- & p-Xylenes	< 0.00092	U	0.00092	0.009	0.001	0.01	0.1	mg/Kg	0.77	10/25/17 12:57
78-93-3	MEK	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-09-2	Methylene chloride	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
91-20-3	Naphthalene	< 0.00037	U,V11	0.00037	0.005	0.0004	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
104-51-8	n-Butylbenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
103-65-1	n-Propylbenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
95-47-6	o-Xylene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
135-98-8	sec-Butylbenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
100-42-5	Styrene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
98-06-6	t-butylbenzene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
127-18-4	Tetrachloroethylene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
108-88-3	Toluene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
156-60-5	trans-1,2-Dichloroethy	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
10061-02-6	trans-1,3-Dichloropro	< 0.00037	U	0.00037	0.005	0.0004	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
79-01-6	Trichloroethylene	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-69-4	Trichlorofluoromethan	< 0.00092	U,V1	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
75-01-4	Vinyl Chloride	< 0.00092	U	0.00092	0.005	0.001	0.005	0.05	mg/Kg	0.77	10/25/17 12:57
1330-20-7	Xylenes	< 0.00092	U	0.00092	0.005	0.001	0.005	0.15	mg/Kg	0.77	10/25/17 12:57
17060-07-0	1,2-Dichloroethane-d4	112					70	130	%	0.77	10/25/17 12:57
1868-53-7	Dibromofluoromethan	105					70	130	%	0.77	10/25/17 12:57
2037-26-5	Toluene-d8(surr)	99.4					70	130	%	0.77	10/25/17 12:57
460-00-4	p-Bromofluorobenzen	100					70	130	%	0.77	10/25/17 12:57

11.28.17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1-34-36
A&B Job Sample ID: 17101348.17

Date: 11/20/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Phase II - Block 333

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102804
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102802
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/23/2017 16:15
Date Received 10/23/2017 16:44
Date Prepared 10/25/2017 08:50
% Moisture 15.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 28.2	U	28.2	29.7	23.7	25	1000	mg/Kg	1	10/25/17 21:49
TPH-1005-2	>C12-C28	< 24.1	U	24.1	29.7	20.3	25	1000	mg/Kg	1	10/25/17 21:49
TPH-1005-4	>C28-C35	< 21	U	21	29.7	17.7	25	1000	mg/Kg	1	10/25/17 21:49
	Total C6-C35	< 28.2					----	----	mg/Kg	1	10/25/17 21:49
111-85-3	1-Chlorooctane(surr)	123					60	143	%	1	10/25/17 21:49
3386-33-2	Chlorooctadecane(sur	119					60	150	%	1	10/25/17 21:49

11.28.17

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17102454 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

Sample Preparation : PB17102420 **Prep Method :** SW-846 5035A **Prep Date :** 10/24/17 11:15 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/Kg	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/Kg	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/Kg	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/Kg	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/Kg	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/Kg	1	0.005	0.002	
1,1-Dichloropropene	563-58-6	< MDL	mg/Kg	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/Kg	1	0.005	0.002	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/Kg	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/Kg	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/Kg	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/Kg	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/Kg	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/Kg	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/Kg	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/Kg	1	0.32	0.075	
2,2-Dichloropropane	594-20-7	< MDL	mg/Kg	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/Kg	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/Kg	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/Kg	1	0.005	0.001	
Benzene	71-43-2	< MDL	mg/Kg	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/Kg	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/Kg	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/Kg	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/Kg	1	0.005	0.0005	
Bromomethane	74-83-9	< MDL	mg/Kg	1	0.005	0.001	
Carbon disulfide	75-15-0	< MDL	mg/Kg	1	0.005	0.002	
Carbon tetrachloride	56-23-5	< MDL	mg/Kg	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/Kg	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/Kg	1	0.005	0.003	
Chloroform	67-66-3	< MDL	mg/Kg	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/Kg	1	0.005	0.001	
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/Kg	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17102454 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/Kg	1	0.005	0.0004	
Dibromochloromethane	124-48-1	< MDL	mg/Kg	1	0.005	0.001	
Dibromomethane	74-95-3	< MDL	mg/Kg	1	0.005	0.001	
Dichlorodifluoromethane	75-71-8	< MDL	mg/Kg	1	0.005	0.002	
Ethylbenzene	100-41-4	< MDL	mg/Kg	1	0.005	0.001	
Isopropylbenzene	98-82-8	< MDL	mg/Kg	1	0.005	0.001	
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/Kg	1	0.01	0.001	
MEK	78-93-3	< MDL	mg/Kg	1	0.005	0.002	
Methylene chloride	75-09-2	< MDL	mg/Kg	1	0.005	0.001	
Naphthalene	91-20-3	< MDL	mg/Kg	1	0.005	0.0004	
n-Butylbenzene	104-51-8	< MDL	mg/Kg	1	0.005	0.001	
n-Propylbenzene	103-65-1	< MDL	mg/Kg	1	0.005	0.001	
o-Xylene	95-47-6	< MDL	mg/Kg	1	0.005	0.001	
sec-Butylbenzene	135-98-8	< MDL	mg/Kg	1	0.005	0.001	
Styrene	100-42-5	< MDL	mg/Kg	1	0.005	0.001	
t-butylbenzene	98-06-6	< MDL	mg/Kg	1	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/Kg	1	0.005	0.001	
Toluene	108-88-3	< MDL	mg/Kg	1	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/Kg	1	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/Kg	1	0.005	0.0004	
Trichloroethylene	79-01-6	< MDL	mg/Kg	1	0.005	0.001	
Trichlorofluoromethane	75-69-4	< MDL	mg/Kg	1	0.005	0.001	
Vinyl Chloride	75-01-4	< MDL	mg/Kg	1	0.005	0.001	
Xylenes	1330-20-7	< MDL	mg/Kg	1	0.005	0.001	
Dibromofluoromethane(surr	1868-53-7	115	%	1			
1,2-Dichloroethane-d4(surr	17060-07-0	119	%	1			
Toluene-d8(surr)	2037-26-5	105	%	1			
p-Bromofluorobenzene(surr	460-00-4	96	%	1			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.022	110	0.02	0.018	90	20	30	71.4-131	
1,1,1-Trichloroethane	0.02	0.024	120	0.02	0.019	95	23.3	30	69.6-140	
1,1,2,2-Tetrachloroethane	0.02	0.019	95	0.02	0.017	85	11.1	30	66.6-128	
1,1,2-Trichloroethane	0.02	0.019	95	0.02	0.017	85	11.1	30	72.8-125	
1,1-Dichloroethane	0.02	0.023	115	0.02	0.019	95	19	30	72.7-129	
1,1-Dichloroethylene	0.02	0.024	120	0.02	0.019	95	23.3	30	71.4-131	
1,1-Dichloropropene	0.02	0.022	110	0.02	0.018	90	20	30	75.9-132	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17102454 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,3-trichlorobenzene	0.02	0.019	95	0.02	0.017	85	11.1	30	56.7-153	
1,2,3-Trichloropropane	0.02	0.018	90	0.02	0.017	85	5.7	30	61.6-138	
1,2,4-Trichlorobenzene	0.02	0.018	90	0.02	0.015	75	18.2	30	55.9-150	
1,2,4-Trimethylbenzene	0.02	0.021	105	0.02	0.017	85	21.1	30	71.1-131	
1,2-Dibromo-3-chloropropa	0.02	0.014	70	0.02	0.014	70	0.0	30	52.4-150	
1,2-Dibromoethane	0.02	0.019	95	0.02	0.017	85	11.1	30	72.9-125	
1,2-Dichlorobenzene	0.02	0.02	100	0.02	0.018	90	10.5	30	76.1-126	
1,2-Dichloroethane	0.02	0.021	105	0.02	0.019	95	10	30	66.4-134	
1,2-Dichloropropane	0.02	0.021	105	0.02	0.017	85	21.1	30	70.2-128	
1,3,5-Trimethylbenzene	0.02	0.021	105	0.02	0.017	85	21.1	30	75.1-127	
1,3-Dichlorobenzene	0.02	0.021	105	0.02	0.018	90	15.4	30	73.9-126	
1,3-Dichloropropane	0.02	0.019	95	0.02	0.017	85	11.1	30	68.3-124	
1,4-Dichlorobenzene	0.02	0.021	105	0.02	0.018	90	15.4	30	72.3-127	
1,4-Dioxane	0.64	0.504	78.8	0.64	0.491	76.7	2.6	30	80-120	L2
2,2-Dichloropropane	0.02	0.023	115	0.02	0.018	90	24.4	30	68.5-138	
2-Chlorotoluene	0.02	0.022	110	0.02	0.018	90	20	30	71.7-128	
4-Chlorotoluene	0.02	0.02	100	0.02	0.017	85	16.2	30	72.2-126	
4-Isopropyltoluene	0.02	0.021	105	0.02	0.016	80	27	30	77.5-125	
Benzene	0.02	0.023	115	0.02	0.019	95	19	30	74-126	
Bromobenzene	0.02	0.021	105	0.02	0.018	90	15.4	30	73.3-129	
Bromochloromethane	0.02	0.023	115	0.02	0.021	105	9.1	30	68.8-131	
Bromodichloromethane	0.02	0.022	110	0.02	0.02	100	9.5	30	69-135	
Bromoform	0.02	0.018	90	0.02	0.017	85	5.7	30	62-146	
Bromomethane	0.02	0.028	140	0.02	0.022	110	24	30	58.7-139	L1
Carbon disulfide	0.02	0.016	80	0.02	0.012	60	28.6	30	80-120	L2
Carbon tetrachloride	0.02	0.025	125	0.02	0.02	100	22.2	30	68.7-135	
Chlorobenzene	0.02	0.022	110	0.02	0.018	90	20	30	73.3-129	
Chloroethane	0.02	0.024	120	0.02	0.02	100	18.2	30	66.2-129	
Chloroform	0.02	0.024	120	0.02	0.02	100	18.2	30	73.7-134	
Chloromethane	0.02	0.031	155	0.02	0.026	130	17.5	30	51.4-135	L1
cis-1,2-Dichloroethylene	0.02	0.022	110	0.02	0.019	95	14.6	30	72.4-132	
cis-1,3-Dichloropropene	0.02	0.019	95	0.02	0.017	85	11.1	30	67.7-134	
Dibromochloromethane	0.02	0.019	95	0.02	0.017	85	11.1	30	73.2-126	
Dibromomethane	0.02	0.02	100	0.02	0.018	90	10.5	30	69.9-134	
Dichlorodifluoromethane	0.02	0.037	185	0.02	0.03	150	20.9	30	36.8-144	L1
Ethylbenzene	0.02	0.021	105	0.02	0.017	85	21.1	30	72.2-128	
Isopropylbenzene	0.02	0.022	110	0.02	0.017	85	25.6	30	71.2-131	
m- & p-Xylenes	0.04	0.044	110	0.04	0.035	87.5	22.8	30	70.7-131	
MEK	0.02	0.018	90	0.02	0.017	85	5.7	30	52.5-152	
Methylene chloride	0.02	0.021	105	0.02	0.017	85	21.1	30	70.6-129	
Naphthalene	0.02	0.014	70	0.02	0.013	65	7.4	30	60.7-145	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17102454 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
n-Butylbenzene	0.02	0.021	105	0.02	0.016	80	27	30	66.5-136	
n-Propylbenzene	0.02	0.021	105	0.02	0.017	85	21.1	30	73.3-126	
o-Xylene	0.02	0.02	100	0.02	0.016	80	22.2	30	71.6-130	
sec-Butylbenzene	0.02	0.021	105	0.02	0.017	85	21.1	30	77.9-124	
Styrene	0.02	0.021	105	0.02	0.017	85	21.1	30	71.1-131	
t-butylbenzene	0.02	0.021	105	0.02	0.016	80	27	30	74.4-130	
Tetrachloroethylene	0.02	0.022	110	0.02	0.018	90	20	30	62.6-157	
Toluene	0.02	0.021	105	0.02	0.017	85	21.1	30	73.3-127	
trans-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.019	95	19	30	80-120	
trans-1,3-Dichloropropene	0.02	0.019	95	0.02	0.016	80	17.1	30	71.5-124	
Trichloroethylene	0.02	0.023	115	0.02	0.019	95	19	30	69.2-133	
Trichlorofluoromethane	0.02	0.03	150	0.02	0.023	115	26.4	30	63.9-140	L1
Vinyl Chloride	0.02	0.025	125	0.02	0.02	100	22.2	30	40.9-159	
Xylenes	0.06	0.064	107	0.06	0.051	85	22.6	30	69.2-133	

QC Type: MS and MSD
QC Sample ID: 17101359.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.02	0.02	100						71.4-131	
1,1,1-Trichloroethane	BRL	0.02	0.022	110						69.6-140	
1,1,2,2-Tetrachloroethane	BRL	0.02	0.02	100						66.6-128	
1,1,2-Trichloroethane	BRL	0.02	0.02	100						72.8-125	
1,1-Dichloroethane	BRL	0.02	0.022	110						72.7-129	
1,1-Dichloroethylene	BRL	0.02	0.023	115						71.4-131	
1,1-Dichloropropene	BRL	0.02	0.022	110						75.9-132	
1,2,3-trichlorobenzene	BRL	0.02	0.022	110						56.7-153	
1,2,3-Trichloropropane	BRL	0.02	0.019	95						61.6-138	
1,2,4-Trichlorobenzene	BRL	0.02	0.022	110						55.9-150	
1,2,4-Trimethylbenzene	BRL	0.02	0.022	110						71.1-131	
1,2-Dibromo-3-chloropropa	BRL	0.02	0.019	95						52.4-150	
1,2-Dibromoethane	BRL	0.02	0.021	105						72.9-125	
1,2-Dichlorobenzene	BRL	0.02	0.021	105						76.1-126	
1,2-Dichloroethane	BRL	0.02	0.021	105						66.4-134	
1,2-Dichloropropane	BRL	0.02	0.021	105						70.2-128	
1,3,5-Trimethylbenzene	BRL	0.02	0.021	105						75.1-127	
1,3-Dichlorobenzene	BRL	0.02	0.021	105						73.9-126	
1,3-Dichloropropane	BRL	0.02	0.02	100						68.3-124	
1,4-Dichlorobenzene	BRL	0.02	0.021	105						72.3-127	
1,4-Dioxane	BRL	0.64	0.597	93.3						70-130	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17102454 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

QC Type: MS and MSD
QC Sample ID: 17101359.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,2-Dichloropropane	BRL	0.02	0.024	120						68.5-138	
2-Chlorotoluene	BRL	0.02	0.022	110						71.7-128	
4-Chlorotoluene	BRL	0.02	0.021	105						72.2-126	
4-Isopropyltoluene	BRL	0.02	0.021	105						77.5-125	
Benzene	BRL	0.02	0.023	115						74-126	
Bromobenzene	BRL	0.02	0.021	105						73.3-129	
Bromochloromethane	BRL	0.02	0.022	110						68.8-131	
Bromodichloromethane	BRL	0.02	0.022	110						69-135	
Bromoform	BRL	0.02	0.019	95						62-146	
Bromomethane	BRL	0.02	0.021	105						58.7-139	
Carbon disulfide	BRL	0.02	0.015	75						70-130	
Carbon tetrachloride	BRL	0.02	0.024	120						68.7-135	
Chlorobenzene	BRL	0.02	0.021	105						73.3-129	
Chloroethane	BRL	0.02	0.023	115						66.2-129	
Chloroform	BRL	0.02	0.022	110						73.7-134	
Chloromethane	BRL	0.02	0.029	145						51.4-135	M8
cis-1,2-Dichloroethylene	BRL	0.02	0.022	110						72.4-132	
cis-1,3-Dichloropropene	BRL	0.02	0.021	105						67.7-134	
Dibromochloromethane	BRL	0.02	0.02	100						73.2-126	
Dibromomethane	BRL	0.02	0.021	105						69.9-134	
Dichlorodifluoromethane	BRL	0.02	0.022	110						36.8-144	
Ethylbenzene	BRL	0.02	0.021	105						72.2-128	
Isopropylbenzene	BRL	0.02	0.022	110						71.2-131	
m- & p-Xylenes	BRL	0.039	0.043	110						70.7-131	
MEK	BRL	0.02	0.018	90						52.5-152	
Methylene chloride	BRL	0.02	0.02	100						70.6-129	
Naphthalene	BRL	0.02	0.02	100						60.7-145	
n-Butylbenzene	BRL	0.02	0.021	105						66.5-136	
n-Propylbenzene	BRL	0.02	0.021	105						73.3-126	
o-Xylene	BRL	0.02	0.021	105						71.6-130	
sec-Butylbenzene	BRL	0.02	0.022	110						77.9-124	
Styrene	BRL	0.02	0.021	105						71.1-131	
t-butylbenzene	BRL	0.02	0.022	110						74.4-130	
Tetrachloroethylene	BRL	0.02	0.022	110						62.6-157	
Toluene	BRL	0.02	0.022	110						73.3-127	
trans-1,2-Dichloroethylene	BRL	0.02	0.022	110						70-130	
trans-1,3-Dichloropropene	BRL	0.02	0.02	100						71.5-124	
Trichloroethylene	BRL	0.02	0.023	115						69.2-133	
Trichlorofluoromethane	BRL	0.02	0.025	125						63.9-140	
Vinyl Chloride	BRL	0.02	0.024	120						40.9-159	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/Kg**

QC Batch ID : Qb17102454 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

QC Type: MS and MSD
QC Sample ID: 17101359.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Xylenes	BRL	0.059	0.064	108						69.2-133	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102568 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.01

Sample Preparation : PB17102549 **Prep Method :** SW-846 5030C **Prep Date :** 10/24/17 13:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/L	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/L	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/L	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloropropene	563-58-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/L	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/L	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/L	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/L	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/L	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/L	1	0.32	0.084	
2,2-Dichloropropane	594-20-7	< MDL	mg/L	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/L	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/L	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/L	1	0.005	0.003	
Benzene	71-43-2	< MDL	mg/L	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/L	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/L	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/L	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/L	1	0.005	0.001	
Bromomethane	74-83-9	< MDL	mg/L	1	0.005	0.002	
Carbon disulfide	75-15-0	< MDL	mg/L	1	0.005	0.001	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/L	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/L	1	0.005	0.001	
Chloroform	67-66-3	< MDL	mg/L	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/L	1	0.005	0.001	
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/L	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102568 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.01

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/L	1	0.005	0.001	
Dibromochloromethane	124-48-1	< MDL	mg/L	1	0.005	0.001	
Dibromomethane	74-95-3	< MDL	mg/L	1	0.005	0.001	
Dichlorodifluoromethane	75-71-8	< MDL	mg/L	1	0.005	0.003	
Ethylbenzene	100-41-4	< MDL	mg/L	1	0.005	0.001	
Isopropylbenzene	98-82-8	< MDL	mg/L	1	0.005	0.001	
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/L	1	0.01	0.002	
MEK	78-93-3	< MDL	mg/L	1	0.005	0.001	
Methylene chloride	75-09-2	< MDL	mg/L	1	0.005	0.001	
Naphthalene	91-20-3	< MDL	mg/L	1	0.005	0.002	
n-Butylbenzene	104-51-8	< MDL	mg/L	1	0.005	0.001	
n-Propylbenzene	103-65-1	< MDL	mg/L	1	0.005	0.001	
o-Xylene	95-47-6	< MDL	mg/L	1	0.005	0.001	
sec-Butylbenzene	135-98-8	< MDL	mg/L	1	0.005	0.001	
Styrene	100-42-5	< MDL	mg/L	1	0.005	0.001	
t-butylbenzene	98-06-6	< MDL	mg/L	1	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1	0.005	0.001	
Toluene	108-88-3	< MDL	mg/L	1	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/L	1	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/L	1	0.005	0.001	
Trichloroethylene	79-01-6	< MDL	mg/L	1	0.005	0.001	
Trichlorofluoromethane	75-69-4	< MDL	mg/L	1	0.005	0.001	
Vinyl Chloride	75-01-4	< MDL	mg/L	1	0.005	0.001	
Xylenes	1330-20-7	< MDL	mg/L	1	0.015	0.002	
Dibromofluoromethane(surr	1868-53-7	93.5	%	1			
1,2-Dichloroethane-d4(surr	17060-07-0	99	%	1			
Toluene-d8(surr)	2037-26-5	98.7	%	1			
p-Bromofluorobenzene(surr	460-00-4	95.4	%	1			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.021	105	0.02	0.021	105	0.0	12	82.6-121	
1,1,1-Trichloroethane	0.02	0.02	100	0.02	0.02	100	0.0	13	82.8-123	
1,1,2,2-Tetrachloroethane	0.02	0.02	100	0.02	0.021	105	4.9	20	77.5-122	
1,1,2-Trichloroethane	0.02	0.02	100	0.02	0.021	105	4.9	14	81.1-119	
1,1-Dichloroethane	0.02	0.019	95	0.02	0.019	95	0.0	12	74.5-125	
1,1-Dichloroethylene	0.02	0.02	100	0.02	0.02	100	0.0	12	75.4-124	
1,1-Dichloropropene	0.02	0.019	95	0.02	0.02	100	5.1	12	76.9-125	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102568 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,3-trichlorobenzene	0.02	0.019	95	0.02	0.02	100	5.1	20	70.8-125	
1,2,3-Trichloropropane	0.02	0.019	95	0.02	0.022	110	14.6	22	69.6-126	
1,2,4-Trichlorobenzene	0.02	0.02	100	0.02	0.019	95	5.1	16	74.8-121	
1,2,4-Trimethylbenzene	0.02	0.021	105	0.02	0.02	100	4.9	12	80.4-114	
1,2-Dibromo-3-chloropropa	0.02	0.018	90	0.02	0.021	105	15.4	27	61.7-140	
1,2-Dibromoethane	0.02	0.02	100	0.02	0.021	105	4.9	15	80.6-118	
1,2-Dichlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	82.6-113	
1,2-Dichloroethane	0.02	0.021	105	0.02	0.022	110	4.7	14	72.8-126	
1,2-Dichloropropane	0.02	0.019	95	0.02	0.019	95	0.0	13	82.4-120	
1,3,5-Trimethylbenzene	0.02	0.021	105	0.02	0.019	95	10	10	81.3-114	R4
1,3-Dichlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	83.4-113	
1,3-Dichloropropane	0.02	0.019	95	0.02	0.02	100	5.1	16	79.8-115	
1,4-Dichlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	82.6-113	
1,4-Dioxane	0.64	0.593	92.7	0.64	0.749	117	23.2	30	70-130	
2,2-Dichloropropane	0.02	0.02	100	0.02	0.019	95	5.1	15	69.4-131	
2-Chlorotoluene	0.02	0.02	100	0.02	0.019	95	5.1	17	77.8-118	
4-Chlorotoluene	0.02	0.02	100	0.02	0.02	100	0.0	15	78.8-117	
4-Isopropyltoluene	0.02	0.021	105	0.02	0.02	100	4.9	11	80.9-114	
Benzene	0.02	0.02	100	0.02	0.02	100	0.0	11	84.1-118	
Bromobenzene	0.02	0.021	105	0.02	0.02	100	4.9	12	82.8-116	
Bromochloromethane	0.02	0.019	95	0.02	0.019	95	0.0	15	70.7-131	
Bromodichloromethane	0.02	0.021	105	0.02	0.021	105	0.0	12	83.1-119	
Bromoform	0.02	0.021	105	0.02	0.022	110	4.7	20	70.3-136	
Bromomethane	0.02	0.021	105	0.02	0.022	110	4.7	23	59-134	
Carbon disulfide	0.02	0.019	95	0.02	0.019	95	0.0	30	70-130	
Carbon tetrachloride	0.02	0.022	110	0.02	0.021	105	4.7	13	74.6-129	
Chlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	87.8-110	
Chloroethane	0.02	0.021	105	0.02	0.023	115	9.1	13	73.7-124	
Chloroform	0.02	0.021	105	0.02	0.02	100	4.9	10	76.4-124	
Chloromethane	0.02	0.018	90	0.02	0.018	90	0.0	15	59.4-138	
cis-1,2-Dichloroethylene	0.02	0.019	95	0.02	0.019	95	0.0	15	74.3-124	
cis-1,3-Dichloropropene	0.02	0.02	100	0.02	0.02	100	0.0	11	84.6-117	
Dibromochloromethane	0.02	0.021	105	0.02	0.021	105	0.0	13	80.3-122	
Dibromomethane	0.02	0.02	100	0.02	0.021	105	4.9	16	75.8-126	
Dichlorodifluoromethane	0.02	0.017	85	0.02	0.016	80	6.1	15	44.4-149	
Ethylbenzene	0.02	0.021	105	0.02	0.023	115	9.1	12	82.8-114	L1
Isopropylbenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	86.8-113	
m- & p-Xylenes	0.04	0.042	105	0.04	0.041	103	2.4	10	76.9-122	
MEK	0.02	0.019	95	0.02	0.027	135	34.8	42	44.9-154	
Methylene chloride	0.02	0.016	80	0.02	0.017	85	6.1	13	67.3-130	
Naphthalene	0.02	0.017	85	0.02	0.022	110	25.6	27	55.8-136	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102568 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
n-Butylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	20	74.1-120	
n-Propylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	12	78.9-115	
o-Xylene	0.02	0.021	105	0.02	0.02	100	4.9	11	86-111	
sec-Butylbenzene	0.02	0.02	100	0.02	0.02	100	0.0	12	80.2-115	
Styrene	0.02	0.021	105	0.02	0.02	100	4.9	12	86.7-111	
t-butylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	14	80.7-116	
Tetrachloroethylene	0.02	0.022	110	0.02	0.021	105	4.7	27	64.2-140	
Toluene	0.02	0.02	100	0.02	0.019	95	5.1	12	85.9-110	
trans-1,2-Dichloroethylene	0.02	0.02	100	0.02	0.019	95	5.1	12	73.7-124	
trans-1,3-Dichloropropene	0.02	0.019	95	0.02	0.02	100	5.1	14	83-114	
Trichloroethylene	0.02	0.022	110	0.02	0.021	105	4.7	12	85.4-114	
Trichlorofluoromethane	0.02	0.022	110	0.02	0.022	110	0.0	12	74.3-126	
Vinyl Chloride	0.02	0.019	95	0.02	0.018	90	5.4	17	61.8-142	
Xylenes	0.06	0.063	105	0.06	0.061	102	3.2	9	81.2-117	

QC Type: MS and MSD
QC Sample ID: 17101366.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.02	0.021	105						72-139	
1,1,1-Trichloroethane	BRL	0.02	0.018	90						70.6-135	
1,1,2,2-Tetrachloroethane	BRL	0.02	0.024	120						55-149	
1,1,2-Trichloroethane	BRL	0.02	0.022	110						68-139	
1,1-Dichloroethane	BRL	0.02	0.018	90						78-134	
1,1-Dichloroethylene	BRL	0.02	0.02	100						65-141	
1,1-Dichloropropene	BRL	0.02	0.017	85						79-136	
1,2,3-trichlorobenzene	BRL	0.02	0.021	105						54-144	
1,2,3-Trichloropropane	BRL	0.02	0.022	110						58-156	
1,2,4-Trichlorobenzene	BRL	0.02	0.019	95						69-127	
1,2,4-Trimethylbenzene	BRL	0.02	0.022	110						80-131	
1,2-Dibromo-3-chloropropa	BRL	0.02	0.024	120						61-145	
1,2-Dibromoethane	BRL	0.02	0.022	110						68-140	
1,2-Dichlorobenzene	BRL	0.02	0.02	100						70-138	
1,2-Dichloroethane	BRL	0.02	0.023	115						67-152	
1,2-Dichloropropane	BRL	0.02	0.019	95						79-135	
1,3,5-Trimethylbenzene	BRL	0.02	0.019	95						79-133	
1,3-Dichlorobenzene	BRL	0.02	0.019	95						79-128	
1,3-Dichloropropane	BRL	0.02	0.02	100						70-147	
1,4-Dichlorobenzene	BRL	0.02	0.019	95						76-127	
1,4-Dioxane	BRL	0.64	0.829	130						70-125	M1

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102568 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.01

QC Type: MS and MSD
QC Sample ID: 17101366.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,2-Dichloropropane	BRL	0.02	0.015	75						60-129	
2-Chlorotoluene	BRL	0.02	0.018	90						83-130	
4-Chlorotoluene	BRL	0.02	0.017	85						82-129	
4-Isopropyltoluene	BRL	0.02	0.0087	43.5						78-129	M2
Benzene	BRL	0.02	0.02	100						73-129	
Bromobenzene	BRL	0.02	0.02	100						76-132	
Bromochloromethane	BRL	0.02	0.019	95						76-135	
Bromodichloromethane	BRL	0.02	0.021	105						80-136	
Bromoform	BRL	0.02	0.024	120						65-139	
Bromomethane	BRL	0.02	0.016	80						65-150	
Carbon disulfide	BRL	0.02	0.012	60						70-125	M2
Carbon tetrachloride	BRL	0.02	0.021	105						70-136	
Chlorobenzene	BRL	0.02	0.019	95						69-123	
Chloroethane	BRL	0.02	0.021	105						74-145	
Chloroform	BRL	0.02	0.019	95						41.8-164	
Chloromethane	BRL	0.02	0.015	75						42.2-160	
cis-1,2-Dichloroethylene	BRL	0.02	0.018	90						71-134	
cis-1,3-Dichloropropene	BRL	0.02	0.018	90						74-128	
Dibromochloromethane	BRL	0.02	0.023	115						67-141	
Dibromomethane	BRL	0.02	0.022	110						63.1-135	
Dichlorodifluoromethane	BRL	0.02	0.023	115						62-146	
Ethylbenzene	BRL	0.02	0.02	100						80-132	
Isopropylbenzene	BRL	0.02	0.019	95						78-137	
m- & p-Xylenes	BRL	0.04	0.042	105						74-127	
MEK	BRL	0.02	0.022	110						52-148	
Methylene chloride	BRL	0.02	0.016	80						68-131	
Naphthalene	0.0058	0.02	0.026	101						61-116	
n-Butylbenzene	BRL	0.02	0.017	85						73-140	
n-Propylbenzene	BRL	0.02	0.017	85						75-127	
o-Xylene	BRL	0.02	0.021	105						74-126	
sec-Butylbenzene	BRL	0.02	0.018	90						75-129	
Styrene	BRL	0.02	0.019	95						77-123	
t-butylbenzene	BRL	0.02	0.019	95						75-126	
Tetrachloroethylene	BRL	0.02	0.02	100						27.6-194	
Toluene	BRL	0.02	0.022	110						72-121	
trans-1,2-Dichloroethylene	BRL	0.02	0.018	90						73-138	
trans-1,3-Dichloropropene	BRL	0.02	0.019	95						66-131	
Trichloroethylene	BRL	0.02	0.021	105						6-138	
Trichlorofluoromethane	BRL	0.02	0.02	100						67-148	
Vinyl Chloride	BRL	0.02	0.019	95						59.4-140	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102568 **Created Date :** 10/24/17 **Created By :** Jdongre

Samples in This QC Batch : 17101348.01

QC Type: MS and MSD
QC Sample ID: 17101366.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Xylenes	BRL	0.06	0.063	105						73-127	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : % Moisture **Method :** SM 2540G **Reporting Units :** %

QC Batch ID : Qb17102579 **Created Date :** 10/25/17 **Created By :** Alomeda

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12

Sample Preparation : PB17102551 **Prep Method :** SM 2540G **Prep Date :** 10/25/17 15:30 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
% Moisture		< MDL	%	1	----			

QC Type: Duplicate

QC Sample ID: 17101348.12

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	18.7	19.4	%	3.7	20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : % Moisture **Method : SM 2540G** **Reporting Units : %**

QC Batch ID : Qb17102580 **Created Date :** 10/25/17 **Created By :** Alomeda

Samples in This QC Batch : 17101348.13,14,15,16,17

Sample Preparation : PB17102551 **Prep Method :** SM 2540G **Prep Date :** 10/25/17 15:30 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
% Moisture		< MDL	%	1	----			

QC Type: Duplicate

QC Sample ID: 17101348.17

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	16	15.9	%	0.6	20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101348 **Date :** 11/20/2017

Analysis : Total Petroleum Hydrocarbons **Method :** TX 1005 **Reporting Units :** mg/Kg

QC Batch ID : Qb17102804 **Created Date :** 10/25/17 **Created By :** LLe

Samples in This QC Batch : 17101348.02,03,04,05,06,07,08,09,11,12,13,14,15,16,17

Sample Preparation : PB17102802 **Prep Method :** TX 1005 **Prep Date :** 10/25/17 08:50 **Prep By :** LLe

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
C6-C12	TPH-1005-1	< MDL	mg/Kg	1	25	23.7		
>C12-C28	TPH-1005-2	< MDL	mg/Kg	1	25	20.3		
>C28-C35	TPH-1005-4	< MDL	mg/Kg	1	25	17.7		
Total C6-C35		< MDL	mg/Kg	1	----			
Chlorooctadecane(surr)	3386-33-2	83.1	%	1				
1-Chlorooctane(surr)	111-85-3	87.3	%	1				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	421	84.2	500	447	89.4	6	20	75-125	
>C12-C28	500	475	95	500	488	97.6	2.7	20	75-125	
>C28-C35	500	494	98.8	500	511	102	3.4	20	75-125	

QC Type: MS and MSD
QC Sample ID: 17101348.03

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
C6-C12	BRL	500	462	92.4	500	563	113	19.7	20	75-125	
>C12-C28	BRL	500	557	111	500	617	123	10.2	20	75-125	
>C28-C35	BRL	500	595	119	500	607	121	2	20	75-125	

Refer to the Definition page for terms.

A & B Labs — Chain of Custody

The Chain of Custody is a Legal Document

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID #: 17101348

Project #:

1. REPORT TO:		2. INVOICE TO:	
Company:	Weston Solutions	Company:	Same as "report to"
Address:	5599 San Felipe Suite 700 Houston, TX	Address:	
Contact:	Dawn Denham	Contact:	
Phone:	713-985-6600	Phone:	
Fax: ☐		Fax: ☐	
E-mail: ☒	dawn.denham@westonsolutions.com	E-mail: ☐	

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☒ Other: 5 day
☐ 2 Days*
☐ 3 Days* *Surcharge applies
☐ 7 Days - Standard

Project Name/Location: DRA Phase II - Block 333

Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☒ EDD

Sampler's Name & Company (PLEASE PRINT): Rachel Omerza + Mike Kunarek - Weston
Sampler's Signature & Date: 10/23/17

A&B USE ONLY	9. Sample ID and Description	10. Sampling Date	10. Sampling Time 24hr	11. Comp.	11. Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	No. of Containers	Analyses/Methods: VOCs 8260B (BTEX only)	TPH 1005	TPH 1006 (on hold)	VOCs 8260B (full suite)	% moisture	18. REMARKS
10A	Trip Blank-2	10/23/17	—			X										X			
11A	SB-6-3-5		1240		X		X							X	X	X		X	
2A	SB-6-8-10		1300		X		X							X	X	X		X	
3A	SB-7-3-5		1350		X		X							X	X	X		X	
4A	SB-7-8-10		1400		X		X							X	X	X		X	
5A	SB DUP-1		0000		X		X							X	X	X		X	
6A	MW-1-3-5		1535		X		X								X	X	X	X	
7A	MW-1-34-36		1615		X		X								X		X	X	

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1	10.23.17	1644		10.23.17	1644
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 2.8 0.5-2.3 °C
Thermometer ID: 140539181
Intact: Y or N Initials: AH

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other

**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

A & B Labs — Chain of Custody

The Chain of Custody is a Legal Document

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 17101348

Project #

1. REPORT TO:		2. INVOICE TO:	
Company:	Weston Solutions	Company:	same as "report to"
Address:	5599 San Felipe Suite 700 Houston, TX	Address:	
Contact:	Dawn Denham	Contact:	
Phone:	713-985-6000	Phone:	
Fax: ☐		Fax: ☐	
E-mail: ☒	dawn.denham@westonsolutions.com	E-mail: ☐	

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☒ Other: 5 day
☐ 2 Days*
☐ 3 Days* *Surcharge applies
☐ 7 Days - Standard

5. Project Name/Location: DRA Phase II - Block 333

7. Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☒ EDD

8. Sampler's Name & Company (PLEASE PRINT): Rachel Ornette + Mike Kanarek - Weston
Sampler's Signature & Date: Hooked On 10/23/17

13. No. of Containers
14. Containers*
15. Preservatives**
16. PH-Lab Only
17. Analyses/Methods: 8260B (BTEX only) | TPH 1005 | TPH 1005 (on hold) | 8260B (full suite) | % moisture

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	10. Sampling Time 24hr	11. Comp.	11. Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	18. REMARKS
01A	Trip Blank-1	10/23/17	—			X							
02A	SB-3-6-8		0900		X		X						
03A	SB-3-8-10		0920		X		X						
04A	SB-1-3-5		0950		X		X						
05A	SB-1-8-10		1005		X		X						
06A	SB-2-3-5		1030		X		X						
07A	SB-2-8-10		1045		X		X						
08A	SB-4-4-5		1145		X		X						
09A	SB-4-9-10	10/23/17	1200		X		X						

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1	10.23.17	1644		10.23.17	1644
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 2.8-0.5-2.3 °C
Thermometer ID 140539031
Intact: Y or N Initials MH

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other

**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

Sample Condition Checklist

A&B JobID : **17101348**	Date Received : **10/23/2017**	Time Received : **4:44PM**
Client Name : **Weston Solutions**		
Temperature : **2.8-0.5cf=2.3°C**	Sample pH : **n/a**	
Thermometer ID : **140539631**	pH Paper ID : **n/a**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** **Water** ☑ **Soil** ☑ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☐ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**	X		
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**		X	
14.	**Sample volume is sufficient for analyses requested.**		X	
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**	X		
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Water: 01 & 10. Received 9 pre-weighed vials and 1 bulk jar for each soil sample. Did not receive 10A. -ANH 10-23-17.

Received by : AHall

Check in by/date : AHall / 10/23/2017

DCS Summary

A&B JobID 17101348
Weston Solutions
DRA Phase II - Block 333
Sample Collected 10/23/2017

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec
DCS	TX 1005	>C12-C28	26.5	mg/Kg	1	25	mg/Kg	106
DCS	TX 1005	>C28-C35	27.3	mg/Kg	1	25	mg/Kg	109
DCS	TX 1005	C6-C12	29.4	mg/Kg	1	25	mg/Kg	118
DCS	TX 1005	Total C6-C35	83.2	mg/Kg	1	75	mg/Kg	111

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec
DCS	SW-846 8260C	1,1,1,2-Tetrachloroethane	0.0053	mg/Kg	1	0.005	mg/Kg	106
DCS	SW-846 8260C	1,1,1-Trichloroethane	0.0051	mg/Kg	1	0.005	mg/Kg	102
DCS	SW-846 8260C	1,1,2,2-Tetrachloroethane	0.006	mg/Kg	1	0.005	mg/Kg	120
DCS	SW-846 8260C	1,1,2-Trichloroethane	0.0055	mg/Kg	1	0.005	mg/Kg	110
DCS	SW-846 8260C	1,1-Dichloroethane	0.005	mg/Kg	1	0.005	mg/Kg	100
DCS	SW-846 8260C	1,1-Dichloroethylene	0.0049	mg/Kg	1	0.005	mg/Kg	98
DCS	SW-846 8260C	1,1-Dichloropropene	0.0044	mg/Kg	1	0.005	mg/Kg	88
DCS	SW-846 8260C	1,2,3-trichlorobenzene	0.0037	mg/Kg	1	0.005	mg/Kg	74
DCS	SW-846 8260C	1,2,3-Trichloropropane	0.0058	mg/Kg	1	0.005	mg/Kg	116
DCS	SW-846 8260C	1,2,4-Trichlorobenzene	0.0021	mg/Kg	1	0.005	mg/Kg	42
DCS	SW-846 8260C	1,2,4-Trimethylbenzene	0.0027	mg/Kg	1	0.005	mg/Kg	54
DCS	SW-846 8260C	1,2-Dibromo-3-chloropropane	0.0041	mg/Kg	1	0.005	mg/Kg	82
DCS	SW-846 8260C	1,2-Dibromoethane	0.0054	mg/Kg	1	0.005	mg/Kg	108
DCS	SW-846 8260C	1,2-Dichlorobenzene	0.0045	mg/Kg	1	0.005	mg/Kg	90
DCS	SW-846 8260C	1,2-Dichloroethane	0.0058	mg/Kg	1	0.005	mg/Kg	116
DCS	SW-846 8260C	1,2-Dichloropropane	0.0045	mg/Kg	1	0.005	mg/Kg	90
DCS	SW-846 8260C	1,3,5-Trimethylbenzene	0.0028	mg/Kg	1	0.005	mg/Kg	56
DCS	SW-846 8260C	1,3-Dichlorobenzene	0.0044	mg/Kg	1	0.005	mg/Kg	88
DCS	SW-846 8260C	1,3-Dichloropropane	0.0049	mg/Kg	1	0.005	mg/Kg	98
DCS	SW-846 8260C	1,4-Dichlorobenzene	0.0047	mg/Kg	1	0.005	mg/Kg	94
DCS	SW-846 8260C	2,2-Dichloropropane	0.0047	mg/Kg	1	0.005	mg/Kg	94
DCS	SW-846 8260C	2-Chlorotoluene	0.0045	mg/Kg	1	0.005	mg/Kg	90
DCS	SW-846 8260C	4-Chlorotoluene	0.003	mg/Kg	1	0.005	mg/Kg	60
DCS	SW-846 8260C	4-Isopropyltoluene	0.0023	mg/Kg	1	0.005	mg/Kg	46
DCS	SW-846 8260C	Benzene	0.0048	mg/Kg	1	0.005	mg/Kg	96

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec
DCS	SW-846 8260C	Bromobenzene	0.005	mg/Kg	1	0.005	mg/Kg	100
DCS	SW-846 8260C	Bromochloromethane	0.0056	mg/Kg	1	0.005	mg/Kg	112
DCS	SW-846 8260C	Bromodichloromethane	0.0055	mg/Kg	1	0.005	mg/Kg	110
DCS	SW-846 8260C	Bromoform	0.0059	mg/Kg	1	0.005	mg/Kg	118
DCS	SW-846 8260C	Bromomethane	0.0068	mg/Kg	1	0.005	mg/Kg	136
DCS	SW-846 8260C	Carbon tetrachloride	0.0051	mg/Kg	1	0.005	mg/Kg	102
DCS	SW-846 8260C	Chlorobenzene	0.0051	mg/Kg	1	0.005	mg/Kg	102
DCS	SW-846 8260C	Chloroethane	0.0052	mg/Kg	1	0.005	mg/Kg	104
DCS	SW-846 8260C	Chloroform	0.0052	mg/Kg	1	0.005	mg/Kg	104
DCS	SW-846 8260C	Chloromethane	0.0063	mg/Kg	1	0.005	mg/Kg	126
DCS	SW-846 8260C	cis-1,2-Dichloroethylene	0.0044	mg/Kg	1	0.005	mg/Kg	88
DCS	SW-846 8260C	cis-1,3-Dichloropropene	0.0042	mg/Kg	1	0.005	mg/Kg	84
DCS	SW-846 8260C	Dibromochloromethane	0.0053	mg/Kg	1	0.005	mg/Kg	106
DCS	SW-846 8260C	Dibromomethane	0.0058	mg/Kg	1	0.005	mg/Kg	116
DCS	SW-846 8260C	Dichlorodifluoromethane	0.0075	mg/Kg	1	0.005	mg/Kg	150
DCS	SW-846 8260C	Ethylbenzene	0.004	mg/Kg	1	0.005	mg/Kg	80
DCS	SW-846 8260C	Isopropylbenzene	0.0024	mg/Kg	1	0.005	mg/Kg	48
DCS	SW-846 8260C	m- & p-Xylenes	0.0085	mg/Kg	1	0.005	mg/Kg	170
DCS	SW-846 8260C	MEK	0.0045	mg/Kg	1	0.005	mg/Kg	90
DCS	SW-846 8260C	Methylene chloride	0.0032	mg/Kg	1	0.005	mg/Kg	64
DCS	SW-846 8260C	Naphthalene	0.0024	mg/Kg	1	0.005	mg/Kg	48
DCS	SW-846 8260C	n-Butylbenzene	0.0019	mg/Kg	1	0.005	mg/Kg	38
DCS	SW-846 8260C	n-Propylbenzene	0.0039	mg/Kg	1	0.005	mg/Kg	78
DCS	SW-846 8260C	o-Xylene	0.0026	mg/Kg	1	0.005	mg/Kg	52
DCS	SW-846 8260C	sec-Butylbenzene	0.0038	mg/Kg	1	0.005	mg/Kg	76

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec
DCS	SW-846 8260C	Styrene	0.0033	mg/Kg	1	0.005	mg/Kg	66
DCS	SW-846 8260C	t-butylbenzene	0.0023	mg/Kg	1	0.005	mg/Kg	46
DCS	SW-846 8260C	Tetrachloroethylene	0.0058	mg/Kg	1	0.005	mg/Kg	116
DCS	SW-846 8260C	Toluene	0.0049	mg/Kg	1	0.005	mg/Kg	98
DCS	SW-846 8260C	trans-1,2-Dichloroethylene	0.0047	mg/Kg	1	0.005	mg/Kg	94
DCS	SW-846 8260C	trans-1,3-Dichloropropene	0.004	mg/Kg	1	0.005	mg/Kg	80
DCS	SW-846 8260C	Trichloroethylene	0.0039	mg/Kg	1	0.005	mg/Kg	78
DCS	SW-846 8260C	Trichlorofluoromethane	0.0051	mg/Kg	1	0.005	mg/Kg	102
DCS	SW-846 8260C	Vinyl Chloride	0.004	mg/Kg	1	0.005	mg/Kg	80
DCS	SW-846 8260C	Xylenes	0.0111	mg/Kg	1	0.005	mg/Kg	222

Laboratory Data Package Cover Page

This data package is for Job No. 17101348 and laboratory batch no(s). Qb17102454,Qb17102568,Qb17102579,Qb17102580,Qb17102804 and consists of:

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:
  - c. LCS spiking amounts,
  - d. Calculated %R for each analyte, and
  - e. The laboratory's LCS QC limits.
- ☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - f. Samples associated with the MS/MSD clearly identified,
  - g. MS/MSD spiking amounts,
  - h. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - i. Calculated %Rs and relative percent differences (RPDs), and
  - j. The laboratory's MS/MSD QC limits
- ☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
  - k. The amount of analyte measured in the duplicate,
  - l. The calculated RPD, and
  - m. 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.

10100 East Freeway, Suite 100
Houston, TX 77029

Phone:713-453-6060
Fax: 713-453-6091

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 Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/ anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspection by [ ] TCEQ or [ ] _____ on _____. 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 forreleasing this data package and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Alisha Hughes	Alisha Hughes	Project Manager	11/20/2017

Laboratory Review Checklist: Reportable Data

Project Name: DRA Phase II - Block 333
A&B Job ID: 17101348
Prep Batch Number(s): Qb17102454,Qb17102568,Qb17102579,Qb17102580,Qb17102804

Reviewed By: AHughes
Date Reviewed: 11/20/2017

#	A	Description	Yes	No	NA	NR	ER#
R1	**OI**	**Chain-of Custody**					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		2) Were all departures from standard conditions described in an exception report?	X				
R2	**OI**	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross referenced to corresponding QC data?	X				
R3	**OI**	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results <MQL, were all other reported results within calibration range?		X			R3/2
		3) Were calculations subject to appropriate checks?	X				
		4) Were all analyte identifications subject to appropriate checks?	X				
		5) Were all sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Was % moisture (or solids) reported for all samples?	X				
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035	X				
		9) If required for the project, were tentatively dentified compounds (TICs) reported?			X		
R4	**OI**	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries (%R) within the laboratory QC limits?		X			R4/2
R5	**OI**	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blanks free of detected target compounds and, if applicable, reported TICs?	X				
R6	**OI**	**Laboratory Control Samples (LCS)**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps ?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6/4
		5) Were LCSs spiked at or below the LORP or do the detectability data document the laboratory's capability of detecting the COCs in samples spiked at the MDL?	X				
		6) Was the LCSD RPD within QC limits?		X			R6/6
R7	**OI**	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %R within the laboratory QC limits?		X			R7/3
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	**OI**	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	**OI**	**Method Quatitation Limits MQLs)**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero standard?	X				

Laboratory Review Checklist: Reportable Data

Project Name: DRA Phase II - Block 333
A&B Job ID: 17101348
Prep Batch Number(s): Qb17102454,Qb17102568,Qb17102579,Qb17102580,Qb17102804

Reviewed By: AHughes
Date Reviewed: 11/20/2017

#	A	Description	Yes	No	NA	NR	ER#
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				
S1	OI	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for instruments used?	X				
		6) 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):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) 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 5.5.10)**					
		1) Were the raw data (e.g., chromatograms, and spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	OI	**DUAL COLUMN CONFIRMATION**					
		Did dual column confirmation results meet the method-required QC?	X				
S7	OI	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	OI	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?			X		
S9	OI	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS**					
		Were percent differences, recoveries, and the linearity within the QC limits			X		
S10	OI	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all methods documented and verified and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S11	OI	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	OI	**STANDARDS DOCUMENTATION**					
		Are the standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				

Laboratory Review Checklist: Reportable Data

Project Name: DRA Phase II - Block 333
A&B Job ID: 17101348
Prep Batch Number(s): Qb17102454,Qb17102568,Qb17102579,Qb17102580,Qb17102804

Reviewed By: AHughes
Date Reviewed: 11/20/2017

#	A	Description	Yes	No	NA	NR	ER#
S13	OI	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**DEMONSTRATION OF CAPABILITY (DOC)**					
		1) Was DOC conducted generally consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S16	OI	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

ER#	EXCEPTION			
R3/2	J - Estimation. Below calibration range but above MDL.			
	(J)SB-3-8-10	17101348.03	Qb17102454	VOC
R4/2	S1 - Surrogate recovery is above control limit. Results may be biased high.			
	(S1)SB-3-6-8	17101348.02	Qb17102804	TPH_1005
	(S1)SB-3-8-10	17101348.03	Qb17102804	TPH_1005
	(S1)SB-3-8-10	17101348.03	Qb17102454	VOC
	(S1)SB-1-3-5	17101348.04	Qb17102804	TPH_1005
	(S1)SB-1-8-10	17101348.05	Qb17102804	TPH_1005
	(S1)SB-2-3-5	17101348.06	Qb17102804	TPH_1005
	(S1)SB-2-8-10	17101348.07	Qb17102804	TPH_1005
	(S1)SB-4-4-5	17101348.08	Qb17102804	TPH_1005
	(S1)SB-4-9-10	17101348.09	Qb17102804	TPH_1005
	(S1)SB-6-3-5	17101348.11	Qb17102804	TPH_1005
	(S1)SB-6-8-10	17101348.12	Qb17102804	TPH_1005
	(S1)SB-7-3-5	17101348.13	Qb17102804	TPH_1005
	(S1)SB-7-8-10	17101348.14	Qb17102804	TPH_1005
	(S1)Dup-1	17101348.15	Qb17102804	TPH_1005
	(S1)MW-1-3-5	17101348.16	Qb17102804	TPH_1005
	(S1)MW-1-34-36	17101348.17	Qb17102804	TPH_1005
R6/4	L1 - Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.			
	---	---	Qb17102454	VOC
	---	---	Qb17102568	VOC
	---	---	Qb17102454	VOC
R6/6	R4 - LCS/LCSD RPD exceeds control limit. Recovery meets acceptance criteria.			
	---	---	Qb17102568	VOC

Laboratory Review Checklist: Reportable Data

Project Name: DRA Phase II - Block 333
A&B Job ID: 17101348
Prep Batch Number(s): Qb17102454,Qb17102568,Qb17102579,Qb17102580,Qb17102804

Reviewed By: AHughes
Date Reviewed: 11/20/2017

ER#	EXCEPTION			
R7/3	M1 - Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits due to matrix interference. , M2 - Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference., M8 - Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.			
	(M1)MW-4	17101366.01	Qb17102568	VOC
	(M2)MW-4	17101366.01	Qb17102568	VOC
	(M8)Sump Soil	17101359.01	Qb17102454	VOC

O = organic analyses;

I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

NR = Not Reviewed;

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

Laboratory Analysis Report

Total Number of Pages: 39

Job ID : 17101520

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
DRA Block 333 Phase II

Report To :	Client Name:	Weston Solutions	P.O.#.:
	Attn:	Dawn Denham	Sample Collected By: Rachel Omerza & Mike Kara
	Client Address:	5599 San Felipe Suite 700	Date Collected: 10/25/17
	City, State, Zip:	Houston, Texas, 77056	

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
MW-3-2-4	Soil	17101520.01
MW-3-22.5-25	Soil	17101520.02
Trip Blank-4	Water	17101520.03

Alisha Hughes

Released By: Alisha Hughes
Title: Project Manager
Date: 11/1/2017

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

Date Received : 10/25/2017 13:12

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17101520 Date: 11/1/2017

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

L1	Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.
L2	Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.
M2	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference."The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
M8	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.
M9	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits.
R1	RPD exceeds control limits."The sample randomly selcted as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
S1	Surrogate recovery is above control limit. Results may be biased high.
U	Undetected at SDL (Sample Detection Limit).
V1	CCV recovery is above acceptance limits. This target analyte was not detected in the sample.
V11	CCV recovery is below acceptance limits.

LABORATORY TEST RESULTS

Client Sample ID: MW-3-2-4
A&B Job Sample ID: 17101520.01
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/25/2017 10:30
QC Batch ID:	Qb17102777	Date Received	10/25/2017 13:12
Prep Method:	SM 2540G	Date Prepared	10/27/2017 15:26
Prepared By:	Alomeda		
Prep Batch ID	PB17102760		
Analyst Initial	AL	% Moisture	16.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	16.9					----	----	%	1	10/27/17 15:50

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3-2-4
A&B Job Sample ID: 17101520.01
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/25/2017 10:30
Date Received 10/25/2017 13:12
Date Prepared 10/27/2017 10:00

% Moisture 16.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
71-55-6	1,1,1-Trichloroethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
79-34-5	1,1,2,2-Tetrachloroet	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
79-00-5	1,1,2-Trichloroethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-34-3	1,1-Dichloroethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
563-58-6	1,1-Dichloropropene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
96-18-4	1,2,3-Trichloropropan	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
120-82-1	1,2,4-Trichlorobenzen	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
95-63-6	1,2,4-Trimethylbenze	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
96-12-8	1,2-Dibromo-3-chloro	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
106-93-4	1,2-Dibromoethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
95-50-1	1,2-Dichlorobenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
107-06-2	1,2-Dichloroethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
78-87-5	1,2-Dichloropropane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
108-67-8	1,3,5-Trimethylbenze	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
541-73-1	1,3-Dichlorobenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
142-28-9	1,3-Dichloropropane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
106-46-7	1,4-Dichlorobenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
123-91-1	1,4-Dioxane	< 0.071	U	0.071	0.304	0.075	0.32	1.6	mg/Kg	0.79	10/27/17 12:52
594-20-7	2,2-Dichloropropane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
95-49-8	2-Chlorotoluene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
106-43-4	4-Chlorotoluene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
99-87-6	4-Isopropyltoluene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
71-43-2	Benzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
108-86-1	Bromobenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
74-97-5	Bromochloromethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-27-4	Bromodichloromethan	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-25-2	Bromoform	< 0.00048	U	0.00048	0.005	0.0005	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
74-83-9	Bromomethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-15-0	Carbon disulfide	< 0.002	U,V11	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
56-23-5	Carbon tetrachloride	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
108-90-7	Chlorobenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-00-3	Chloroethane	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
67-66-3	Chloroform	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52

Soil results reported on dry weight basis

JKD 11-3-17

LABORATORY TEST RESULTS

Client Sample ID: MW-3-2-4
A&B Job Sample ID: 17101520.01
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/25/2017 10:30
Date Received 10/25/2017 13:12
Date Prepared 10/27/2017 10:00
% Moisture 16.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
156-59-2	cis-1,2-Dichloroethyle	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
10061-01-5	cis-1,3-Dichloroprope	< 0.00038	U	0.00038	0.005	0.0004	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
124-48-1	Dibromochloromethan	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
74-95-3	Dibromomethane	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
100-41-4	Ethylbenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
98-82-8	Isopropylbenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
108-38-3&106-4	m- & p-Xylenes	< 0.00095	U	0.00095	0.01	0.001	0.01	0.1	mg/Kg	0.79	10/27/17 12:52
78-93-3	MEK	0.006		0.002	0.005	0.002	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-09-2	Methylene chloride	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
1634-04-4	MTBE	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
91-20-3	Naphthalene	< 0.00038	U	0.00038	0.005	0.0004	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
104-51-8	n-Butylbenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
103-65-1	n-Propylbenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
95-47-6	o-Xylene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
135-98-8	sec-Butylbenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
100-42-5	Styrene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
98-06-6	t-butylbenzene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
127-18-4	Tetrachloroethylene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
108-88-3	Toluene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
156-60-5	trans-1,2-Dichloroethy	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
10061-02-6	trans-1,3-Dichloropro	< 0.00038	U	0.00038	0.005	0.0004	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
79-01-6	Trichloroethylene	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-69-4	Trichlorofluoromethan	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
75-01-4	Vinyl Chloride	< 0.00095	U	0.00095	0.005	0.001	0.005	0.05	mg/Kg	0.79	10/27/17 12:52
1330-20-7	Xylenes	< 0.00095	U	0.00095	0.005	0.001	0.005	0.15	mg/Kg	0.79	10/27/17 12:52
17060-07-0	1,2-Dichloroethane-d4	122					70	130	%	0.79	10/27/17 12:52
1868-53-7	Dibromofluoromethan	110					70	130	%	0.79	10/27/17 12:52
2037-26-5	Toluene-d8(surr)	87.1					70	130	%	0.79	10/27/17 12:52
460-00-4	p-Bromofluorobenzen	121					70	130	%	0.79	10/27/17 12:52

MT
11-3-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3-2-4
A&B Job Sample ID: 17101520.01
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/25/2017 10:30
QC Batch ID:	Qb17102795	Date Received	10/25/2017 13:12
Prep Method:	TX 1005	Date Prepared	10/26/2017 13:00
Prepared By:	LLe		
Prep Batch ID	PB17102772		
Analyst Initial	LL	% Moisture	16.9

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 28.5	U	28.5	30.1	23.7	25	1000	mg/Kg	1	10/27/17 23:51
TPH-1005-2	>C12-C28	< 24.4	U	24.4	30.1	20.3	25	1000	mg/Kg	1	10/27/17 23:51
TPH-1005-4	>C28-C35	< 21.3	U	21.3	30.1	17.7	25	1000	mg/Kg	1	10/27/17 23:51
	Total C6-C35	< 28.5					----	----	mg/Kg	1	10/27/17 23:51
111-85-3	1-Chlorooctane(surr)	97.3					60	143	%	1	10/27/17 23:51
3386-33-2	Chlorooctadecane(sur	93.4					60	150	%	1	10/27/17 23:51

NKT
11-3-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3-22.5-25
A&B Job Sample ID: 17101520.02

Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/25/2017 11:00
QC Batch ID:	Qb17102777	Date Received	10/25/2017 13:12
Prep Method:	SM 2540G	Date Prepared	10/27/2017 15:26
Prepared By:	Alomeda		
Prep Batch ID	PB17102760		
Analyst Initial	AL	% Moisture	14.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	14.1					----	----	%	1	10/27/17 15:50

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3-22.5-25
A&B Job Sample ID: 17101520.02
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/25/2017 11:00
Date Received 10/25/2017 13:12
Date Prepared 10/27/2017 10:00

% Moisture 14.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
123-91-1	1,4-Dioxane	< 0.079	U	0.079	0.335	0.075	0.32	1.6	mg/Kg	0.90	10/27/17 13:26
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
99-87-6	4-Isopropyltoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-25-2	Bromoform	< 0.00052	U	0.00052	0.005	0.0005	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
74-83-9	Bromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-15-0	Carbon disulfide	< 0.002	U,V11	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-00-3	Chloroethane	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26

JKD 11-3-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3-22.5-25
A&B Job Sample ID: 17101520.02

Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:		Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	10/25/2017 11:00
QC Batch ID:	Qb17103038	Date Received	10/25/2017 13:12
Prep Method:	SW-846 5035A	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103020		
Analyst Initial	JKD	% Moisture	14.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
10061-01-5	cis-1,3-Dichloroprope	< 0.00042	U	0.00042	0.005	0.0004	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.01	0.001	0.01	0.1	mg/Kg	0.90	10/27/17 13:26
78-93-3	MEK	0.037		0.002	0.005	0.002	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
1634-04-4	MTBE	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
91-20-3	Naphthalene	< 0.00042	U	0.00042	0.005	0.0004	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
10061-02-6	trans-1,3-Dichloropro	< 0.00042	U	0.00042	0.005	0.0004	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/Kg	0.90	10/27/17 13:26
1330-20-7	Xylenes	< 0.001	U	0.001	0.005	0.001	0.005	0.15	mg/Kg	0.90	10/27/17 13:26
17060-07-0	1,2-Dichloroethane-d4	98.5					70	130	%	0.90	10/27/17 13:26
1868-53-7	Dibromofluoromethan	107					70	130	%	0.90	10/27/17 13:26
2037-26-5	Toluene-d8(surr)	97.6					70	130	%	0.90	10/27/17 13:26
460-00-4	p-Bromofluorobenzen	129					70	130	%	0.90	10/27/17 13:26

JKJ
11-3-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3-22.5-25
A&B Job Sample ID: 17101520.02

Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham

Project Name: DRA Block 333 Phase II

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/25/2017 11:00
QC Batch ID:	Qb17102795	Date Received	10/25/2017 13:12
Prep Method:	TX 1005	Date Prepared	10/26/2017 13:00
Prepared By:	LLe		
Prep Batch ID	PB17102772		
Analyst Initial	LL	% Moisture	14.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 27.6	U	27.6	29.1	23.7	25	1000	mg/Kg	1	10/28/17 00:18
TPH-1005-2	>C12-C28	< 23.6	U	23.6	29.1	20.3	25	1000	mg/Kg	1	10/28/17 00:18
TPH-1005-4	>C28-C35	< 20.6	U	20.6	29.1	17.7	25	1000	mg/Kg	1	10/28/17 00:18
	Total C6-C35	< 27.6					----	----	mg/Kg	1	10/28/17 00:18
111-85-3	1-Chlorooctane(surr)	106					60	143	%	1	10/28/17 00:18
3386-33-2	Chlorooctadecane(sur	103					60	150	%	1	10/28/17 00:18

NKJ
11-3-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank-4
A&B Job Sample ID: 17101520.03
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/25/2017
QC Batch ID:	Qb17102622	Date Received	10/25/2017 13:12
Prep Method:	SW-846 5030C	Date Prepared	10/25/2017 17:00
Prepared By:	Jdongre		
Prep Batch ID	PB17102623		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/27/17 12:10
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
99-87-6	4-Isopropyltoluene	< 0.003	U,V11	0.003	0.005	0.003	0.005	0.05	mg/L UJL	1	10/27/17 12:10
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-25-2	Bromoform	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/27/17 12:10
75-15-0	Carbon disulfide	< 0.001	U,V11	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-00-3	Chloroethane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10

Soil results reported on dry weight basis

NKJ 11-3-17

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank-4
A&B Job Sample ID: 17101520.03
Date: 11/1/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/25/2017
QC Batch ID:	Qb17102622	Date Received	10/25/2017 13:12
Prep Method:	SW-846 5030C	Date Prepared	10/25/2017 17:00
Prepared By:	Jdongre		
Prep Batch ID	PB17102623		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-71-8	Dichlorodifluorometha	< 0.003	U,V1	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/27/17 12:10
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/27/17 12:10
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/27/17 12:10
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 12:10
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/27/17 12:10
17060-07-0	1,2-Dichloroethane-d4	110					70	130	%	1	10/27/17 12:10
1868-53-7	Dibromofluoromethan	92.7					70	130	%	1	10/27/17 12:10
2037-26-5	Toluene-d8(surr)	98.2					70	130	%	1	10/27/17 12:10
460-00-4	p-Bromofluorobenzen	94.4					70	130	%	1	10/27/17 12:10

JKD
11-3-17

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102622 **Created Date :** 10/25/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.03

Sample Preparation : PB17102623 **Prep Method :** SW-846 5030C **Prep Date :** 10/25/17 17:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/L	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/L	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/L	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloropropene	563-58-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/L	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/L	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/L	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/L	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/L	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/L	1	0.32	0.084	
2,2-Dichloropropane	594-20-7	< MDL	mg/L	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/L	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/L	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/L	1	0.005	0.003	
Benzene	71-43-2	< MDL	mg/L	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/L	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/L	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/L	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/L	1	0.005	0.001	
Bromomethane	74-83-9	< MDL	mg/L	1	0.005	0.002	
Carbon disulfide	75-15-0	< MDL	mg/L	1	0.005	0.001	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/L	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/L	1	0.005	0.001	
Chloroform	67-66-3	< MDL	mg/L	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/L	1	0.005	0.001	
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/L	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102622 **Created Date :** 10/25/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.03

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/L	1	0.005	0.001	
Dibromochloromethane	124-48-1	< MDL	mg/L	1	0.005	0.001	
Dibromomethane	74-95-3	< MDL	mg/L	1	0.005	0.001	
Dichlorodifluoromethane	75-71-8	< MDL	mg/L	1	0.005	0.003	
Ethylbenzene	100-41-4	< MDL	mg/L	1	0.005	0.001	
Isopropylbenzene	98-82-8	< MDL	mg/L	1	0.005	0.001	
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/L	1	0.01	0.002	
MEK	78-93-3	< MDL	mg/L	1	0.005	0.001	
Methylene chloride	75-09-2	< MDL	mg/L	1	0.005	0.001	
MTBE	1634-04-4	< MDL	mg/L	1	0.005	0.001	
Naphthalene	91-20-3	< MDL	mg/L	1	0.005	0.002	
n-Butylbenzene	104-51-8	< MDL	mg/L	1	0.005	0.001	
n-Propylbenzene	103-65-1	< MDL	mg/L	1	0.005	0.001	
o-Xylene	95-47-6	< MDL	mg/L	1	0.005	0.001	
sec-Butylbenzene	135-98-8	< MDL	mg/L	1	0.005	0.001	
Styrene	100-42-5	< MDL	mg/L	1	0.005	0.001	
t-butylbenzene	98-06-6	< MDL	mg/L	1	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1	0.005	0.001	
Toluene	108-88-3	< MDL	mg/L	1	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/L	1	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/L	1	0.005	0.001	
Trichloroethylene	79-01-6	< MDL	mg/L	1	0.005	0.001	
Trichlorofluoromethane	75-69-4	< MDL	mg/L	1	0.005	0.001	
Vinyl Chloride	75-01-4	< MDL	mg/L	1	0.005	0.001	
Xylenes	1330-20-7	< MDL	mg/L	1	0.015	0.002	
Dibromofluoromethane(surr	1868-53-7	97.6	%	1			
1,2-Dichloroethane-d4(surr	17060-07-0	112	%	1			
Toluene-d8(surr)	2037-26-5	98.6	%	1			
p-Bromofluorobenzene(surr	460-00-4	97.4	%	1			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.023	115	0.02	0.022	110	4.4	12	82.6-121	
1,1,1-Trichloroethane	0.02	0.019	95	0.02	0.019	95	0.0	13	82.8-123	
1,1,2,2-Tetrachloroethane	0.02	0.021	105	0.02	0.022	110	4.7	20	77.5-122	
1,1,2-Trichloroethane	0.02	0.021	105	0.02	0.021	105	0.0	14	81.1-119	
1,1-Dichloroethane	0.02	0.019	95	0.02	0.019	95	0.0	12	74.5-125	
1,1-Dichloroethylene	0.02	0.021	105	0.02	0.021	105	0.0	12	75.4-124	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102622 **Created Date :** 10/25/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.03

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloropropene	0.02	0.018	90	0.02	0.017	85	5.7	12	76.9-125	
1,2,3-trichlorobenzene	0.02	0.019	95	0.02	0.02	100	5.1	20	70.8-125	
1,2,3-Trichloropropane	0.02	0.02	100	0.02	0.021	105	4.9	22	69.6-126	
1,2,4-Trichlorobenzene	0.02	0.017	85	0.02	0.018	90	5.7	16	74.8-121	
1,2,4-Trimethylbenzene	0.02	0.019	95	0.02	0.019	95	0.0	12	80.4-114	
1,2-Dibromo-3-chloropropa	0.02	0.021	105	0.02	0.02	100	4.9	27	61.7-140	
1,2-Dibromoethane	0.02	0.021	105	0.02	0.021	105	0.0	15	80.6-118	
1,2-Dichlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	82.6-113	
1,2-Dichloroethane	0.02	0.023	115	0.02	0.023	115	0.0	14	72.8-126	
1,2-Dichloropropane	0.02	0.019	95	0.02	0.019	95	0.0	13	82.4-120	
1,3,5-Trimethylbenzene	0.02	0.019	95	0.02	0.019	95	0.0	10	81.3-114	
1,3-Dichlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	83.4-113	
1,3-Dichloropropane	0.02	0.021	105	0.02	0.02	100	4.9	16	79.8-115	
1,4-Dichlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	82.6-113	
1,4-Dioxane	0.64	0.631	98.6	0.64	0.658	103	4.2	30	70-130	
2,2-Dichloropropane	0.02	0.016	80	0.02	0.016	80	0.0	15	69.4-131	
2-Chlorotoluene	0.02	0.02	100	0.02	0.019	95	5.1	17	77.8-118	
4-Chlorotoluene	0.02	0.019	95	0.02	0.019	95	0.0	15	78.8-117	
4-Isopropyltoluene	0.02	0.0093	46.5	0.02	0.0092	46	1.1	11	80.9-114	L2
Benzene	0.02	0.02	100	0.02	0.02	100	0.0	11	84.1-118	
Bromobenzene	0.02	0.02	100	0.02	0.02	100	0.0	12	82.8-116	
Bromochloromethane	0.02	0.019	95	0.02	0.019	95	0.0	15	70.7-131	
Bromodichloromethane	0.02	0.023	115	0.02	0.022	110	4.4	12	83.1-119	
Bromoform	0.02	0.024	120	0.02	0.024	120	0.0	20	70.3-136	
Bromomethane	0.02	0.02	100	0.02	0.017	85	16.2	23	59-134	
Carbon disulfide	0.02	0.014	70	0.02	0.014	70	0.0	30	70-130	
Carbon tetrachloride	0.02	0.023	115	0.02	0.022	110	4.4	13	74.6-129	
Chlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	87.8-110	
Chloroethane	0.02	0.025	125	0.02	0.025	125	0.0	13	73.7-124	L1
Chloroform	0.02	0.02	100	0.02	0.02	100	0.0	10	76.4-124	
Chloromethane	0.02	0.017	85	0.02	0.014	70	19.4	15	59.4-138	R1
cis-1,2-Dichloroethylene	0.02	0.019	95	0.02	0.019	95	0.0	15	74.3-124	
cis-1,3-Dichloropropene	0.02	0.019	95	0.02	0.018	90	5.4	11	84.6-117	
Dibromochloromethane	0.02	0.023	115	0.02	0.023	115	0.0	13	80.3-122	
Dibromomethane	0.02	0.021	105	0.02	0.021	105	0.0	16	75.8-126	
Dichlorodifluoromethane	0.02	0.026	130	0.02	0.026	130	0.0	15	44.4-149	
Ethylbenzene	0.02	0.02	100	0.02	0.02	100	0.0	12	82.8-114	
Isopropylbenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	86.8-113	
m- & p-Xylenes	0.04	0.041	103	0.04	0.041	103	0.0	10	76.9-122	
MEK	0.02	0.019	95	0.02	0.019	95	0.0	42	44.9-154	
Methylene chloride	0.02	0.016	80	0.02	0.015	75	6.5	13	67.3-130	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102622 **Created Date :** 10/25/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.03

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
MTBE	0.02	0.02	100	0.02	0.02	100	0.0	30	70-130	
Naphthalene	0.02	0.018	90	0.02	0.019	95	5.4	27	55.8-136	
n-Butylbenzene	0.02	0.018	90	0.02	0.017	85	5.7	20	74.1-120	
n-Propylbenzene	0.02	0.018	90	0.02	0.018	90	0.0	12	78.9-115	
o-Xylene	0.02	0.021	105	0.02	0.02	100	4.9	11	86-111	
sec-Butylbenzene	0.02	0.019	95	0.02	0.019	95	0.0	12	80.2-115	
Styrene	0.02	0.02	100	0.02	0.02	100	0.0	12	86.7-111	
t-butylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	14	80.7-116	
Tetrachloroethylene	0.02	0.024	120	0.02	0.024	120	0.0	27	64.2-140	
Toluene	0.02	0.02	100	0.02	0.02	100	0.0	12	85.9-110	
trans-1,2-Dichloroethylene	0.02	0.02	100	0.02	0.019	95	5.1	12	73.7-124	
trans-1,3-Dichloropropene	0.02	0.02	100	0.02	0.02	100	0.0	14	83-114	
Trichloroethylene	0.02	0.022	110	0.02	0.021	105	4.7	12	85.4-114	
Trichlorofluoromethane	0.02	0.023	115	0.02	0.022	110	4.4	12	74.3-126	
Vinyl Chloride	0.02	0.021	105	0.02	0.021	105	0.0	17	61.8-142	
Xylenes	0.06	0.062	103	0.06	0.061	102	1.6	9	81.2-117	

QC Type: MS and MSD
QC Sample ID: 17101449.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.02	0.022	110						72-139	
1,1,1-Trichloroethane	BRL	0.02	0.019	95						70.6-135	
1,1,2,2-Tetrachloroethane	BRL	0.02	0.024	120						55-149	
1,1,2-Trichloroethane	BRL	0.02	0.023	115						68-139	
1,1-Dichloroethane	BRL	0.02	0.018	90						78-134	
1,1-Dichloroethylene	BRL	0.02	0.021	105						65-141	
1,1-Dichloropropene	BRL	0.02	0.017	85						79-136	
1,2,3-trichlorobenzene	BRL	0.02	0.021	105						54-144	
1,2,3-Trichloropropane	BRL	0.02	0.023	115						58-156	
1,2,4-Trichlorobenzene	BRL	0.02	0.018	90						69-127	
1,2,4-Trimethylbenzene	BRL	0.02	0.018	90						80-131	
1,2-Dibromo-3-chloropropa	BRL	0.02	0.025	125						61-145	
1,2-Dibromoethane	BRL	0.02	0.023	115						68-140	
1,2-Dichlorobenzene	BRL	0.02	0.02	100						70-138	
1,2-Dichloroethane	BRL	0.02	0.025	125						67-152	
1,2-Dichloropropane	BRL	0.02	0.019	95						79-135	
1,3,5-Trimethylbenzene	BRL	0.02	0.018	90						79-133	
1,3-Dichlorobenzene	BRL	0.02	0.019	95						79-128	
1,3-Dichloropropane	BRL	0.02	0.022	110						70-147	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17102622 **Created Date :** 10/25/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.03

QC Type: MS and MSD
QC Sample ID: 17101449.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,4-Dichlorobenzene	BRL	0.02	0.019	95						76-127	
1,4-Dioxane	BRL	0.64	0.897	140						70-125	M8
2,2-Dichloropropane	BRL	0.02	0.016	80						60-129	
2-Chlorotoluene	BRL	0.02	0.018	90						83-130	
4-Chlorotoluene	BRL	0.02	0.018	90						82-129	
4-Isopropyltoluene	BRL	0.02	0.0088	44						78-129	M9
Benzene	BRL	0.02	0.02	100						73-129	
Bromobenzene	BRL	0.02	0.019	95						76-132	
Bromochloromethane	BRL	0.02	0.02	100						76-135	
Bromodichloromethane	BRL	0.02	0.022	110						80-136	
Bromoform	BRL	0.02	0.027	135						65-139	
Bromomethane	BRL	0.02	0.017	85						65-150	
Carbon disulfide	BRL	0.02	0.013	65						70-125	M9
Carbon tetrachloride	BRL	0.02	0.023	115						70-136	
Chlorobenzene	BRL	0.02	0.02	100						69-123	
Chloroethane	BRL	0.02	0.025	125						74-145	
Chloroform	BRL	0.02	0.02	100						41.8-164	
Chloromethane	BRL	0.02	0.016	80						42.2-160	
cis-1,2-Dichloroethylene	BRL	0.02	0.018	90						71-134	
cis-1,3-Dichloropropene	BRL	0.02	0.018	90						74-128	
Dibromochloromethane	BRL	0.02	0.025	125						67-141	
Dibromomethane	BRL	0.02	0.023	115						63.1-135	
Dichlorodifluoromethane	BRL	0.02	0.024	120						62-146	
Ethylbenzene	BRL	0.02	0.019	95						80-132	
Isopropylbenzene	BRL	0.02	0.019	95						78-137	
m- & p-Xylenes	BRL	0.04	0.039	97.5						74-127	
MEK	BRL	0.02	0.022	110						52-148	
Methylene chloride	BRL	0.02	0.015	75						68-131	
MTBE	BRL	0.02	0.021	105						70-130	
Naphthalene	BRL	0.02	0.021	105						61-116	
n-Butylbenzene	BRL	0.02	0.017	85						73-140	
n-Propylbenzene	BRL	0.02	0.017	85						75-127	
o-Xylene	BRL	0.02	0.02	100						74-126	
sec-Butylbenzene	BRL	0.02	0.018	90						75-129	
Styrene	BRL	0.02	0.015	75						77-123	M2
t-butylbenzene	BRL	0.02	0.019	95						75-126	
Tetrachloroethylene	BRL	0.02	0.02	100						27.6-194	
Toluene	BRL	0.02	0.019	95						72-121	
trans-1,2-Dichloroethylene	BRL	0.02	0.019	95						73-138	
trans-1,3-Dichloropropene	BRL	0.02	0.02	100						66-131	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : **Volatile Organic Compounds** **Method :** **SW-846 8260C** **Reporting Units :** **mg/L**

QC Batch ID : Qb17102622 **Created Date :** 10/25/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.03

QC Type: MS and MSD
QC Sample ID: 17101449.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Trichloroethylene	BRL	0.02	0.021	105						6-138	
Trichlorofluoromethane	BRL	0.02	0.022	110						67-148	
Vinyl Chloride	BRL	0.02	0.02	100						59.4-140	
Xylenes	BRL	0.06	0.059	98.3						73-127	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : % Moisture **Method :** SM 2540G **Reporting Units :** %

QC Batch ID : Qb17102777 **Created Date :** 10/27/17 **Created By :** Alomeda

Samples in This QC Batch : 17101520.01,02

Sample Preparation : PB17102760 **Prep Method :** SM 2540G **Prep Date :** 10/27/17 15:26 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
% Moisture		< MDL	%	1	----			

QC Type: Duplicate

QC Sample ID: 17101472.01

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	BRL	BRL	%		20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Total Petroleum Hydrocarbons **Method :** TX 1005 **Reporting Units :** mg/Kg

QC Batch ID : Qb17102795 **Created Date :** 10/26/17 **Created By :** LLe

Samples in This QC Batch : 17101520.01,02

Sample Preparation : PB17102772 **Prep Method :** TX 1005 **Prep Date :** 10/26/17 13:00 **Prep By :** LLe

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
C6-C12	TPH-1005-1	< MDL	mg/Kg	1	25	23.7		
>C12-C28	TPH-1005-2	< MDL	mg/Kg	1	25	20.3		
>C28-C35	TPH-1005-4	< MDL	mg/Kg	1	25	17.7		
Total C6-C35		< MDL	mg/Kg	1	----			
Chlorooctadecane(surr)	3386-33-2	101	%	1				
1-Chlorooctane(surr)	111-85-3	106	%	1				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	452	90.4	500	485	97	7	20	75-125	
>C12-C28	500	518	104	500	561	112	8	20	75-125	
>C28-C35	500	464	92.8	500	512	102	9.8	20	75-125	

QC Type: MS and MSD
QC Sample ID: 17101459.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
C6-C12	BRL	500	558	112	500	437	87.4	24.3	20	75-125	R1
>C12-C28	BRL	500	502	100	500	455	91	9.8	20	75-125	
>C28-C35	BRL	500	475	95	500	486	97.2	2.3	20	75-125	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.01,02

Sample Preparation : PB17103020 **Prep Method :** SW-846 5035A **Prep Date :** 10/27/17 10:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/Kg	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/Kg	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/Kg	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/Kg	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/Kg	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/Kg	1	0.005	0.002	
1,1-Dichloropropene	563-58-6	< MDL	mg/Kg	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/Kg	1	0.005	0.002	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/Kg	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/Kg	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/Kg	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/Kg	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/Kg	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/Kg	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/Kg	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/Kg	1	0.32	0.075	
2,2-Dichloropropane	594-20-7	< MDL	mg/Kg	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/Kg	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/Kg	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/Kg	1	0.005	0.001	
Benzene	71-43-2	< MDL	mg/Kg	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/Kg	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/Kg	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/Kg	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/Kg	1	0.005	0.0005	
Bromomethane	74-83-9	< MDL	mg/Kg	1	0.005	0.001	
Carbon disulfide	75-15-0	< MDL	mg/Kg	1	0.005	0.002	
Carbon tetrachloride	56-23-5	< MDL	mg/Kg	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/Kg	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/Kg	1	0.005	0.003	
Chloroform	67-66-3	< MDL	mg/Kg	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/Kg	1	0.005	0.001	
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/Kg	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.01,02

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/Kg	1	0.005	0.0004	
Dibromochloromethane	124-48-1	< MDL	mg/Kg	1	0.005	0.001	
Dibromomethane	74-95-3	< MDL	mg/Kg	1	0.005	0.001	
Dichlorodifluoromethane	75-71-8	< MDL	mg/Kg	1	0.005	0.002	
Ethylbenzene	100-41-4	< MDL	mg/Kg	1	0.005	0.001	
Isopropylbenzene	98-82-8	< MDL	mg/Kg	1	0.005	0.001	
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/Kg	1	0.01	0.001	
MEK	78-93-3	< MDL	mg/Kg	1	0.005	0.002	
Methylene chloride	75-09-2	< MDL	mg/Kg	1	0.005	0.001	
MTBE	1634-04-4	< MDL	mg/Kg	1	0.005	0.003	
Naphthalene	91-20-3	< MDL	mg/Kg	1	0.005	0.0004	
n-Butylbenzene	104-51-8	< MDL	mg/Kg	1	0.005	0.001	
n-Propylbenzene	103-65-1	< MDL	mg/Kg	1	0.005	0.001	
o-Xylene	95-47-6	< MDL	mg/Kg	1	0.005	0.001	
sec-Butylbenzene	135-98-8	< MDL	mg/Kg	1	0.005	0.001	
Styrene	100-42-5	< MDL	mg/Kg	1	0.005	0.001	
t-butylbenzene	98-06-6	< MDL	mg/Kg	1	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/Kg	1	0.005	0.001	
Toluene	108-88-3	< MDL	mg/Kg	1	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/Kg	1	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/Kg	1	0.005	0.0004	
Trichloroethylene	79-01-6	< MDL	mg/Kg	1	0.005	0.001	
Trichlorofluoromethane	75-69-4	< MDL	mg/Kg	1	0.005	0.001	
Vinyl Chloride	75-01-4	< MDL	mg/Kg	1	0.005	0.001	
Xylenes	1330-20-7	< MDL	mg/Kg	1	0.005	0.001	
Dibromofluoromethane(surr	1868-53-7	111	%	1			
1,2-Dichloroethane-d4(surr	17060-07-0	110	%	1			
Toluene-d8(surr)	2037-26-5	103	%	1			
p-Bromofluorobenzene(surr	460-00-4	97.9	%	1			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.022	110	0.02	0.021	105	4.7	30	71.4-131	
1,1,1-Trichloroethane	0.02	0.023	115	0.02	0.021	105	9.1	30	69.6-140	
1,1,2,2-Tetrachloroethane	0.02	0.021	105	0.02	0.019	95	10	30	66.6-128	
1,1,2-Trichloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	72.8-125	
1,1-Dichloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	72.7-129	
1,1-Dichloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.4-131	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.01,02

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloropropene	0.02	0.022	110	0.02	0.02	100	9.5	30	75.9-132	
1,2,3-trichlorobenzene	0.02	0.021	105	0.02	0.019	95	10	30	56.7-153	
1,2,3-Trichloropropane	0.02	0.02	100	0.02	0.018	90	10.5	30	61.6-138	
1,2,4-Trichlorobenzene	0.02	0.02	100	0.02	0.018	90	10.5	30	55.9-150	
1,2,4-Trimethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.1-131	
1,2-Dibromo-3-chloropropa	0.02	0.018	90	0.02	0.015	75	18.2	30	52.4-150	
1,2-Dibromoethane	0.02	0.021	105	0.02	0.02	100	4.9	30	72.9-125	
1,2-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	76.1-126	
1,2-Dichloroethane	0.02	0.023	115	0.02	0.021	105	9.1	30	66.4-134	
1,2-Dichloropropane	0.02	0.022	110	0.02	0.02	100	9.5	30	70.2-128	
1,3,5-Trimethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	75.1-127	
1,3-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	73.9-126	
1,3-Dichloropropane	0.02	0.02	100	0.02	0.019	95	5.1	30	68.3-124	
1,4-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.3-127	
1,4-Dioxane	0.64	0.59	92.2	0.64	0.526	82.2	11.5	30	80-120	
2,2-Dichloropropane	0.02	0.024	120	0.02	0.021	105	13.3	30	68.5-138	
2-Chlorotoluene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.7-128	
4-Chlorotoluene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.2-126	
4-Isopropyltoluene	0.02	0.022	110	0.02	0.02	100	9.5	30	77.5-125	
Benzene	0.02	0.024	120	0.02	0.022	110	8.7	30	74-126	
Bromobenzene	0.02	0.021	105	0.02	0.02	100	4.9	30	73.3-129	
Bromochloromethane	0.02	0.023	115	0.02	0.021	105	9.1	30	68.8-131	
Bromodichloromethane	0.02	0.024	120	0.02	0.022	110	8.7	30	69-135	
Bromoform	0.02	0.021	105	0.02	0.019	95	10	30	62-146	
Bromomethane	0.02	0.021	105	0.02	0.02	100	4.9	30	58.7-139	
Carbon disulfide	0.02	0.015	75	0.02	0.014	70	6.9	30	80-120	L2
Carbon tetrachloride	0.02	0.026	130	0.02	0.024	120	8	30	68.7-135	
Chlorobenzene	0.02	0.022	110	0.02	0.021	105	4.7	30	73.3-129	
Chloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	66.2-129	
Chloroform	0.02	0.023	115	0.02	0.021	105	9.1	30	73.7-134	
Chloromethane	0.02	0.026	130	0.02	0.024	120	8	30	51.4-135	
cis-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.02	100	14	30	72.4-132	
cis-1,3-Dichloropropene	0.02	0.022	110	0.02	0.019	95	14.6	30	67.7-134	
Dibromochloromethane	0.02	0.022	110	0.02	0.02	100	9.5	30	73.2-126	
Dibromomethane	0.02	0.022	110	0.02	0.02	100	9.5	30	69.9-134	
Dichlorodifluoromethane	0.02	0.026	130	0.02	0.024	120	8	30	36.8-144	
Ethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.2-128	
Isopropylbenzene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.2-131	
m- & p-Xylenes	0.04	0.045	113	0.04	0.042	105	6.9	30	70.7-131	
MEK	0.02	0.018	90	0.02	0.017	85	5.7	30	52.5-152	
Methylene chloride	0.02	0.023	115	0.02	0.02	100	14	30	70.6-129	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.01,02

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
MTBE	0.02	0.019	95	0.02	0.017	85	11.1	30	80-120	
Naphthalene	0.02	0.018	90	0.02	0.016	80	11.8	30	60.7-145	
n-Butylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	66.5-136	
n-Propylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	73.3-126	
o-Xylene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.6-130	
sec-Butylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	30	77.9-124	
Styrene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.1-131	
t-butylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	74.4-130	
Tetrachloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	62.6-157	
Toluene	0.02	0.022	110	0.02	0.021	105	4.7	30	73.3-127	
trans-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	80-120	
trans-1,3-Dichloropropene	0.02	0.021	105	0.02	0.019	95	10	30	71.5-124	
Trichloroethylene	0.02	0.024	120	0.02	0.021	105	13.3	30	69.2-133	
Trichlorofluoromethane	0.02	0.025	125	0.02	0.022	110	12.8	30	63.9-140	
Vinyl Chloride	0.02	0.021	105	0.02	0.019	95	10	30	40.9-159	
Xylenes	0.06	0.067	112	0.06	0.062	103	7.8	30	69.2-133	

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.017	0.019	112						71.4-131	
1,1,1-Trichloroethane	BRL	0.017	0.019	112						69.6-140	
1,1,2,2-Tetrachloroethane	BRL	0.017	0.019	112						66.6-128	
1,1,2-Trichloroethane	BRL	0.017	0.019	112						72.8-125	
1,1-Dichloroethane	BRL	0.017	0.018	106						72.7-129	
1,1-Dichloroethylene	BRL	0.017	0.019	112						71.4-131	
1,1-Dichloropropene	BRL	0.017	0.018	106						75.9-132	
1,2,3-trichlorobenzene	BRL	0.017	0.017	100						56.7-153	
1,2,3-Trichloropropane	BRL	0.017	0.02	118						61.6-138	
1,2,4-Trichlorobenzene	BRL	0.017	0.015	88.2						55.9-150	
1,2,4-Trimethylbenzene	BRL	0.017	0.018	106						71.1-131	
1,2-Dibromo-3-chloropropa	BRL	0.017	0.017	100						52.4-150	
1,2-Dibromoethane	BRL	0.017	0.019	112						72.9-125	
1,2-Dichlorobenzene	BRL	0.017	0.018	106						76.1-126	
1,2-Dichloroethane	BRL	0.017	0.02	118						66.4-134	
1,2-Dichloropropane	BRL	0.017	0.019	112						70.2-128	
1,3,5-Trimethylbenzene	BRL	0.017	0.017	100						75.1-127	
1,3-Dichlorobenzene	BRL	0.017	0.017	100						73.9-126	
1,3-Dichloropropane	BRL	0.017	0.018	106						68.3-124	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.01,02

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,4-Dichlorobenzene	BRL	0.017	0.017	100						72.3-127	
1,4-Dioxane	BRL	0.64	0.721	113						70-130	
2,2-Dichloropropane	BRL	0.017	0.017	100						68.5-138	
2-Chlorotoluene	BRL	0.017	0.018	106						71.7-128	
4-Chlorotoluene	BRL	0.017	0.017	100						72.2-126	
4-Isopropyltoluene	BRL	0.017	0.017	100						77.5-125	
Benzene	BRL	0.017	0.02	118						74-126	
Bromobenzene	BRL	0.017	0.018	106						73.3-129	
Bromochloromethane	BRL	0.017	0.019	112						68.8-131	
Bromodichloromethane	BRL	0.017	0.02	118						69-135	
Bromoform	BRL	0.017	0.019	112						62-146	
Bromomethane	BRL	0.017	0.015	88.2						58.7-139	
Carbon disulfide	BRL	0.017	0.012	70.6						70-130	
Carbon tetrachloride	BRL	0.017	0.02	118						68.7-135	
Chlorobenzene	BRL	0.017	0.018	106						73.3-129	
Chloroethane	BRL	0.017	0.016	94.1						66.2-129	
Chloroform	BRL	0.017	0.019	112						73.7-134	
Chloromethane	BRL	0.017	0.021	124						51.4-135	
cis-1,2-Dichloroethylene	BRL	0.017	0.018	106						72.4-132	
cis-1,3-Dichloropropene	BRL	0.017	0.018	106						67.7-134	
Dibromochloromethane	BRL	0.017	0.019	112						73.2-126	
Dibromomethane	BRL	0.017	0.02	118						69.9-134	
Dichlorodifluoromethane	BRL	0.017	0.027	159						36.8-144	M8
Ethylbenzene	BRL	0.017	0.018	106						72.2-128	
Isopropylbenzene	BRL	0.017	0.018	106						71.2-131	
m- & p-Xylenes	BRL	0.034	0.035	103						70.7-131	
MEK	BRL	0.017	0.019	112						52.5-152	
Methylene chloride	BRL	0.017	0.016	94.1						70.6-129	
MTBE	BRL	0.017	0.017	100						70-130	
Naphthalene	BRL	0.017	0.018	106						60.7-145	
n-Butylbenzene	BRL	0.017	0.016	94.1						66.5-136	
n-Propylbenzene	BRL	0.017	0.017	100						73.3-126	
o-Xylene	BRL	0.017	0.018	106						71.6-130	
sec-Butylbenzene	BRL	0.017	0.018	106						77.9-124	
Styrene	BRL	0.017	0.018	106						71.1-131	
t-butylbenzene	BRL	0.017	0.018	106						74.4-130	
Tetrachloroethylene	BRL	0.017	0.02	118						62.6-157	
Toluene	BRL	0.017	0.018	106						73.3-127	
trans-1,2-Dichloroethylene	BRL	0.017	0.018	106						70-130	
trans-1,3-Dichloropropene	BRL	0.017	0.017	100						71.5-124	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101520 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/Kg**

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101520.01,02

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Trichloroethylene	BRL	0.017	0.02	118						69.2-133	
Trichlorofluoromethane	BRL	0.017	0.016	94.1						63.9-140	
Vinyl Chloride	BRL	0.017	0.016	94.1						40.9-159	
Xylenes	BRL	0.051	0.053	104						69.2-133	

Refer to the Definition page for terms.

A & B Labs — *Chain of Custody*

The Chain of Custody is a Legal Document — Page 1 of 1

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 17101520

5. Project #

1. REPORT TO:		2. INVOICE TO:	
Company:	Weston Solutions	Company:	Same as "report to"
Address:	5599 San Felipe, Ste 700 Houston, TX 77056	Address:	
Contact:	Dawn Denham	Contact:	
Phone:	713-985-6000	Phone:	
Fax: ☐		Fax: ☐	
E-mail: ☒	dawn.denham@westonsolutions.com	E-mail: ☐	

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☒ Other: 5 days
☐ 2 Days*
☐ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location: DRA Block 333 Phase II

7. Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☒ EDD

8. Sampler's Name & Company (PLEASE PRINT): Rachel Omeiza + Mike Carper, Weston Solutions
Sampler's Signature & Date: 10/25/17 10/25/17

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	Time 24hr	11. Comp.	11. Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	No. of Containers	Analyses/Methods: VOCs (SW846) - full suite	TPH 1005	% moisture	18. REMARKS
01AB	MW-3-2-4	10/25/17	1030		X		X						7	X	X	X	
27 of 30	~~MW-3-8-9~~	~~10/25/17~~	~~1045~~		~~X~~		~~X~~							~~X~~	~~X~~	~~X~~	
02AB	MW-3-22.5-25	10/25/17	1100		X		X						7	X	X	X	
03A	Trip Blank-4	10/25/17	—		X	X							1	X			

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1	10/25/17	13:12		10.25.17	1312
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 3.4-0.5=2.9 °C
Thermometer ID 140539031
Intact: Y or N Initials TH

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other

**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

Sample Condition Checklist

A&B JobID :	**17101520**	Date Received :	**10/25/2017**	Time Received :	**1:12PM**
Client Name :	**Weston Solutions**				
Temperature :	**3.4-0.5cf=2.9°C**	Sample pH :	**n/a**		
Thermometer ID :	**140539631**	pH Paper ID :	**n/a**		

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** **Water** ☑ **Soil** ☑ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☐ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**	X		
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**	X		
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

03: Water. Received 6 pre-weighed vials and 1 bulk jar for each soil sample. -ANH 10-25-17.

Received by : AHall

Check in by/date : AHall / 10/25/2017

DCS Summary

A&B JobID 17101520
Weston Solutions
DRA Block 333 Phase II
Sample Collected 10/25/2017

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	TX 1005	>C12-C28	26.5	mg/Kg	1	25	mg/Kg	106	10/25/2017	LLe
DCS	TX 1005	>C28-C35	27.3	mg/Kg	1	25	mg/Kg	109	10/25/2017	LLe
DCS	TX 1005	C6-C12	29.4	mg/Kg	1	25	mg/Kg	118	10/25/2017	LLe
DCS	TX 1005	Total C6-C35	83.2	mg/Kg	1	75	mg/Kg	111	10/26/2017	LLe

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	1,1,1,2-Tetrachloroethane	0.0057	mg/L	1	0.004	mg/L	143	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,1-Trichloroethane	0.0054	mg/L	1	0.004	mg/L	135	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,2,2-Tetrachloroethane	0.006	mg/L	1	0.004	mg/L	150	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,2-Trichloroethane	0.0054	mg/L	1	0.004	mg/L	135	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloroethane	0.0056	mg/L	1	0.004	mg/L	140	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloroethylene	0.0053	mg/L	1	0.004	mg/L	133	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloropropene	0.0045	mg/L	1	0.004	mg/L	113	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,3-trichlorobenzene	0.0038	mg/L	1	0.004	mg/L	95	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,3-Trichloropropane	0.0063	mg/L	1	0.004	mg/L	158	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,4-Trichlorobenzene	0.0022	mg/L	1	0.004	mg/L	55	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,4-Trimethylbenzene	0.003	mg/L	1	0.004	mg/L	75	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dibromo-3-chloropropane	0.005	mg/L	1	0.004	mg/L	125	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dibromoethane	0.0049	mg/L	1	0.004	mg/L	123	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichlorobenzene	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichloroethane	0.0059	mg/L	1	0.004	mg/L	148	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichloropropane	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3,5-Trimethylbenzene	0.003	mg/L	1	0.004	mg/L	75	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3-Dichlorobenzene	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3-Dichloropropane	0.0052	mg/L	1	0.004	mg/L	130	10/24/2017	Jdongre
DCS	SW-846 8260C	1,4-Dichlorobenzene	0.005	mg/L	1	0.004	mg/L	125	10/24/2017	Jdongre
DCS	SW-846 8260C	1,4-Dioxane	0.158	mg/L	1	0.128	mg/L	123	10/24/2017	Jdongre
DCS	SW-846 8260C	2,2-Dichloropropane	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	2-Chlorotoluene	0.0047	mg/L	1	0.004	mg/L	118	10/24/2017	Jdongre
DCS	SW-846 8260C	4-Chlorotoluene	0.003	mg/L	1	0.004	mg/L	75	10/24/2017	Jdongre
DCS	SW-846 8260C	4-Isopropyltoluene	0.0027	mg/L	1	0.004	mg/L	67.5	10/24/2017	Jdongre

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	Benzene	0.0048	mg/L	1	0.004	mg/L	120	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromobenzene	0.0049	mg/L	1	0.004	mg/L	123	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromochloromethane	0.0057	mg/L	1	0.004	mg/L	143	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromodichloromethane	0.0058	mg/L	1	0.004	mg/L	145	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromoform	0.0061	mg/L	1	0.004	mg/L	153	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromomethane	0.0064	mg/L	1	0.004	mg/L	160	10/24/2017	Jdongre
DCS	SW-846 8260C	Carbon disulfide	0.0034	mg/L	1	0.004	mg/L	85	10/24/2017	Jdongre
DCS	SW-846 8260C	Carbon tetrachloride	0.0052	mg/L	1	0.004	mg/L	130	10/24/2017	Jdongre
DCS	SW-846 8260C	Chlorobenzene	0.0053	mg/L	1	0.004	mg/L	133	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloroethane	0.0053	mg/L	1	0.004	mg/L	133	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloroform	0.0056	mg/L	1	0.004	mg/L	140	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloromethane	0.0067	mg/L	1	0.004	mg/L	168	10/24/2017	Jdongre
DCS	SW-846 8260C	cis-1,2-Dichloroethylene	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	cis-1,3-Dichloropropene	0.0042	mg/L	1	0.004	mg/L	105	10/24/2017	Jdongre
DCS	SW-846 8260C	Dibromochloromethane	0.0051	mg/L	1	0.004	mg/L	128	10/24/2017	Jdongre
DCS	SW-846 8260C	Dibromomethane	0.0058	mg/L	1	0.004	mg/L	145	10/24/2017	Jdongre
DCS	SW-846 8260C	Dichlorodifluoromethane	0.0045	mg/L	1	0.004	mg/L	113	10/24/2017	Jdongre
DCS	SW-846 8260C	Ethylbenzene	0.0042	mg/L	1	0.004	mg/L	105	10/24/2017	Jdongre
DCS	SW-846 8260C	Isopropylbenzene	0.0028	mg/L	1	0.004	mg/L	70	10/24/2017	Jdongre
DCS	SW-846 8260C	m- & p-Xylenes	0.0092	mg/L	1	0.008	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	MEK	0.0056	mg/L	1	0.004	mg/L	140	10/24/2017	Jdongre
DCS	SW-846 8260C	Methylene chloride	0.0036	mg/L	1	0.004	mg/L	90	10/24/2017	Jdongre
DCS	SW-846 8260C	MTBE	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	Naphthalene	0.0024	mg/L	1	0.004	mg/L	60	10/24/2017	Jdongre
DCS	SW-846 8260C	n-Butylbenzene	0.0022	mg/L	1	0.004	mg/L	55	10/24/2017	Jdongre

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	n-Propylbenzene	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	o-Xylene	0.0028	mg/L	1	0.004	mg/L	70	10/24/2017	Jdongre
DCS	SW-846 8260C	sec-Butylbenzene	0.004	mg/L	1	0.004	mg/L	100	10/24/2017	Jdongre
DCS	SW-846 8260C	Styrene	0.0036	mg/L	1	0.004	mg/L	90	10/24/2017	Jdongre
DCS	SW-846 8260C	t-butylbenzene	0.0025	mg/L	1	0.004	mg/L	62.5	10/24/2017	Jdongre
DCS	SW-846 8260C	Tetrachloroethylene	0.0061	mg/L	1	0.004	mg/L	153	10/24/2017	Jdongre
DCS	SW-846 8260C	Toluene	0.0052	mg/L	1	0.004	mg/L	130	10/24/2017	Jdongre
DCS	SW-846 8260C	trans-1,2-Dichloroethylene	0.0051	mg/L	1	0.004	mg/L	128	10/24/2017	Jdongre
DCS	SW-846 8260C	trans-1,3-Dichloropropene	0.0043	mg/L	1	0.004	mg/L	108	10/24/2017	Jdongre
DCS	SW-846 8260C	Trichloroethylene	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	Trichlorofluoromethane	0.0054	mg/L	1	0.004	mg/L	135	10/24/2017	Jdongre
DCS	SW-846 8260C	Vinyl Chloride	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	Xylenes	0.012	mg/L	1	0.012	mg/L	100	10/26/2017	Jdongre

Laboratory Data Package Cover Page

This data package is for Job No. 17101520 and laboratory batch no(s). Qb17102622,Qb17102777,Qb17102795,Qb17103038 and consists of:

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:
  - c. LCS spiking amounts,
  - d. Calculated %R for each analyte, and
  - e. The laboratory's LCS QC limits.
- ☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - f. Samples associated with the MS/MSD clearly identified,
  - g. MS/MSD spiking amounts,
  - h. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - i. Calculated %Rs and relative percent differences (RPDs), and
  - j. The laboratory's MS/MSD QC limits
- ☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
  - k. The amount of analyte measured in the duplicate,
  - l. The calculated RPD, and
  - m. 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.

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 Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/ anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspection by [ ] TCEQ or [ ] _____ on _____. 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 forreleasing this data package and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Alisha Hughes	Alisha Hughes	Project Manager	11/01/2017

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101520
Prep Batch Number(s): Qb17102622,Qb17102777,Qb17102795,Qb17103038

Reviewed By: AHughes
Date Reviewed: 11/01/2017

#	A	Description	Yes	No	NA	NR	ER#
R1	**OI**	**Chain-of Custody**					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		2) Were all departures from standard conditions described in an exception report?	X				
R2	**OI**	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross referenced to corresponding QC data?	X				
R3	**OI**	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results <MQL, were all other reported results within calibration range?	X				
		3) Were calculations subject to appropriate checks?	X				
		4) Were all analyte identifications subject to appropriate checks?	X				
		5) Were all sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Was % moisture (or solids) reported for all samples?	X				
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035	X				
		9) If required for the project, were tentatively dentified compounds (TICs) reported?			X		
R4	**OI**	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries (%R) within the laboratory QC limits?		X			R4/2
R5	**OI**	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blanks free of detected target compounds and, if applicable, reported TICs?	X				
R6	**OI**	**Laboratory Control Samples (LCS)**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps ?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6/4
		5) Were LCSs spiked at or below the LORP or do the detectability data document the laboratory's capability of detecting the COCs in samples spiked at the MDL?	X				
		6) Was the LCSD RPD within QC limits?		X			R6/6
R7	**OI**	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %R within the laboratory QC limits?		X			R7/3
		4) Were MS/MSD RPDs within laboratory QC limits?		X			R7/4
R8	**OI**	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?		X			R8/3
R9	**OI**	**Method Quatitation Limits MQLs)**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero standard?	X				

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101520
Prep Batch Number(s): Qb17102622,Qb17102777,Qb17102795,Qb17103038

Reviewed By: AHughes
Date Reviewed: 11/01/2017

#	A	Description	Yes	No	NA	NR	ER#
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				
S1	OI	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for instruments used?	X				
		6) 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):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) 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 5.5.10)**					
		1) Were the raw data (e.g., chromatograms, and spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	OI	**DUAL COLUMN CONFIRMATION**					
		Did dual column confirmation results meet the method-required QC?	X				
S7	OI	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	OI	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?			X		
S9	OI	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS**					
		Were percent differences, recoveries, and the linearity within the QC limits			X		
S10	OI	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all methods documented and verified and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S11	OI	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	OI	**STANDARDS DOCUMENTATION**					
		Are the standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101520
Prep Batch Number(s): Qb17102622,Qb17102777,Qb17102795,Qb17103038

Reviewed By: AHughes
Date Reviewed: 11/01/2017

#	A	Description	Yes	No	NA	NR	ER#
S13	OI	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**DEMONSTRATION OF CAPABILITY (DOC)**					
		1) Was DOC conducted generally consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S16	OI	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

ER#	EXCEPTION			
R4/2	S1 - Surrogate recovery is above control limit. Results may be biased high.			
	(S1)MW-3-2-4	17101520.01	Qb17102795	TPH_1005
	(S1)MW-3-22.5-25	17101520.02	Qb17102795	TPH_1005
R6/4	L1 - Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high., L2 - Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.			
	---	---	Qb17102622	VOC
	---	---	Qb17102622	VOC
	---	---	Qb17103038	VOC
R6/6	R1 - RPD exceeds control limits.			
	---	---	Qb17102622	VOC
	(R1)B1-15'	17101459.01	Qb17102795	TPH_1005
R7/3	M2 - Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference., M8 - Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits., M9 - Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits.			
	(M2)Quarterly Waste Water	17101449.01	Qb17102622	VOC
	(M8)Quarterly Waste Water	17101449.01	Qb17102622	VOC
	(M8)MW-2-33-35	17101525.02	Qb17103038	VOC
	(M9)Quarterly Waste Water	17101449.01	Qb17102622	VOC
R7/4	R1 - RPD exceeds control limits.			
	---	---	Qb17102622	VOC
	(R1)B1-15'	17101459.01	Qb17102795	TPH_1005
R8/3	R1 - RPD exceeds control limits.			
	---	---	Qb17102622	VOC
	(R1)B1-15'	17101459.01	Qb17102795	TPH_1005

O = organic analyses;

I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

NR = Not Reviewed;

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101520
Prep Batch Number(s): Qb17102622,Qb17102777,Qb17102795,Qb17103038

Reviewed By: AHughes
Date Reviewed: 11/01/2017

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

Laboratory Analysis Report

Total Number of Pages: 62

Job ID : 17101525

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
DRA Block 333 Phase II

Report To :	Client Name:	Weston Solutions	P.O.#.:
	Attn:	Dawn Denham	Sample Collected By: Rachel Omerza
	Client Address:	5599 San Felipe Suite 700	Date Collected: 10/24/17
	City, State, Zip:	Houston, Texas, 77056	

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
MW-2-10-12.5	Soil	17101525.01
MW-2-33-35	Soil	17101525.02
Trip Blank-3	Water	17101525.03
FB-1	Water	17101525.04
MW-4-21-25	Soil	17101525.05
MW-4-25-27	Soil	17101525.06
DUP 2	Soil	17101525.07

Alisha Hughes

Released By: Alisha Hughes
Title: Project Manager
Date: 11/17/2017

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

Date Received : 10/24/2017 16:54

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17101525

Date: 11/17/2017

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

J	Estimation. Below calibration range but above MDL.
L2	Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.
M8	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.
M9	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits.
R1	RPD exceeds control limits."The sample randomly selcted as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
R4	LCS/LCSD RPD exceeds control limit. Recovery meets acceptance criteria.
S1	Surrogate recovery is above control limit. Results may be biased high.
U	Undetected at SDL (Sample Detection Limit).

LABORATORY TEST RESULTS

Client Sample ID: MW-2-10-12.5
A&B Job Sample ID: 17101525.01

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/24/2017 12:00
QC Batch ID:	Qb17102777	Date Received	10/24/2017 16:54
Prep Method:	SM 2540G	Date Prepared	10/27/2017 15:26
Prepared By:	Alomeda		
Prep Batch ID	PB17102760		
Analyst Initial	AL	% Moisture	18.2

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	18.2					----	----	%	1	10/27/17 15:50

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-10-12.5
A&B Job Sample ID: 17101525.01
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Metals by ICP/MS**	Sample Matrix	Soil
Analytical Method:	SW-846 6020B	Date Collected	10/24/2017 12:00
QC Batch ID:	Qb17110224	Date Received	10/24/2017 16:54
Prep Method:	SW-846 3050B	Date Prepared	11/01/2017 10:50
Prepared By:	JYou		
Prep Batch ID	PB17110207		
Analyst Initial	GG	% Moisture	18.2

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	6.13		0.012	0.153	0.01	0.125	50	mg/Kg	1	11/01/17 16:19

MK7
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-10-12.5
A&B Job Sample ID: 17101525.01
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 12:00
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00

% Moisture 18.2

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
123-91-1	1,4-Dioxane	< 0.083	U	0.083	0.356	0.075	0.32	1.6	mg/Kg	0.91	10/27/17 14:01
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
99-87-6	4-Isopropyltoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
71-43-2	Benzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
108-86-1	Bromobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-25-2	Bromoform	< 0.00056	U	0.00056	0.006	0.0005	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
74-83-9	Bromomethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-15-0	Carbon disulfide	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-00-3	Chloroethane	< 0.003	U	0.003	0.006	0.003	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
67-66-3	Chloroform	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01

NKT 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-10-12.5
A&B Job Sample ID: 17101525.01
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 12:00
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00

% Moisture 18.2

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
10061-01-5	cis-1,3-Dichloroprope	< 0.00044	U	0.00044	0.006	0.0004	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
74-95-3	Dibromomethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
108-38-3&106-4	m- & p-Xylenes	< 0.001	U	0.001	0.011	0.001	0.01	0.1	mg/Kg	0.91	10/27/17 14:01
78-93-3	MEK	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-09-2	Methylene chloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
91-20-3	Naphthalene	< 0.00044	U	0.00044	0.006	0.0004	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
95-47-6	o-Xylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
100-42-5	Styrene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
108-88-3	Toluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
10061-02-6	trans-1,3-Dichloropro	< 0.00044	U	0.00044	0.006	0.0004	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.91	10/27/17 14:01
1330-20-7	Xylenes	< 0.001	U	0.001	0.006	0.001	0.005	0.15	mg/Kg	0.91	10/27/17 14:01
17060-07-0	1,2-Dichloroethane-d4	116					70	130	%	0.91	10/27/17 14:01
1868-53-7	Dibromofluoromethan	111					70	130	%	0.91	10/27/17 14:01
2037-26-5	Toluene-d8(surr)	98.5					70	130	%	0.91	10/27/17 14:01
460-00-4	p-Bromofluorobenzen	98.2					70	130	%	0.91	10/27/17 14:01

MKJ
12/5/17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-10-12.5
A&B Job Sample ID: 17101525.01

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/24/2017 12:00
QC Batch ID:	Qb17102795	Date Received	10/24/2017 16:54
Prep Method:	TX 1005	Date Prepared	10/26/2017 13:00
Prepared By:	LLe		
Prep Batch ID	PB17102772		
Analyst Initial	LL	% Moisture	18.2

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 29	U	29	30.6	23.7	25	1000	mg/Kg	1	10/27/17 12:22
TPH-1005-2	>C12-C28	< 24.8	U	24.8	30.6	20.3	25	1000	mg/Kg	1	10/27/17 12:22
TPH-1005-4	>C28-C35	< 21.6	U	21.6	30.6	17.7	25	1000	mg/Kg	1	10/27/17 12:22
	Total C6-C35	< 29					----	----	mg/Kg	1	10/27/17 12:22
111-85-3	1-Chlorooctane(surr)	111					60	143	%	1	10/27/17 12:22
3386-33-2	Chlorooctadecane(sur	107					60	150	%	1	10/27/17 12:22

NKT
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-33-35
A&B Job Sample ID: 17101525.02

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/24/2017 12:15
QC Batch ID:	Qb17102777	Date Received	10/24/2017 16:54
Prep Method:	SM 2540G	Date Prepared	10/27/2017 15:26
Prepared By:	Alomeda		
Prep Batch ID	PB17102760		
Analyst Initial	AL	% Moisture	11.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	11.5					----	----	%	1	10/27/17 15:50

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-33-35
A&B Job Sample ID: 17101525.02

Date: 11/17/2017

Client Name:	Weston Solutions
Project Name:	DRA Block 333 Phase II

Attn: Dawn Denham

Test Description:	**Metals by ICP/MS**	Sample Matrix	Soil
Analytical Method:	SW-846 6020B	Date Collected	10/24/2017 12:15
QC Batch ID:	Qb17110224	Date Received	10/24/2017 16:54
Prep Method:	SW-846 3050B	Date Prepared	11/01/2017 10:50
Prepared By:	JYou		
Prep Batch ID	PB17110207		
Analyst Initial	GG	% Moisture	11.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	7.81		0.011	0.141	0.01	0.125	50	mg/Kg	1	11/01/17 15:42

MKT
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-33-35
A&B Job Sample ID: 17101525.02
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:		Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	10/24/2017 12:15
QC Batch ID:	Qb17103038	Date Received	10/24/2017 16:54
Prep Method:	SW-846 5035A	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103020		
Analyst Initial	JKD	% Moisture	11.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
71-55-6	1,1,1-Trichloroethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
79-34-5	1,1,2,2-Tetrachloroet	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
79-00-5	1,1,2-Trichloroethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-34-3	1,1-Dichloroethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
563-58-6	1,1-Dichloropropene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
96-18-4	1,2,3-Trichloropropan	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
120-82-1	1,2,4-Trichlorobenzen	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
95-63-6	1,2,4-Trimethylbenze	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
96-12-8	1,2-Dibromo-3-chloro	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
106-93-4	1,2-Dibromoethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
95-50-1	1,2-Dichlorobenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
107-06-2	1,2-Dichloroethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
78-87-5	1,2-Dichloropropane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
108-67-8	1,3,5-Trimethylbenze	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
541-73-1	1,3-Dichlorobenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
142-28-9	1,3-Dichloropropane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
106-46-7	1,4-Dichlorobenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
123-91-1	1,4-Dioxane	< 0.07	U	0.07	0.300	0.075	0.32	1.6	mg/Kg	0.83	10/27/17 14:36
594-20-7	2,2-Dichloropropane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
95-49-8	2-Chlorotoluene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
106-43-4	4-Chlorotoluene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
99-87-6	4-Isopropyltoluene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
71-43-2	Benzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
108-86-1	Bromobenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
74-97-5	Bromochloromethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-27-4	Bromodichloromethan	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-25-2	Bromoform	< 0.00047	U	0.00047	0.005	0.0005	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
74-83-9	Bromomethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-15-0	Carbon disulfide	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
56-23-5	Carbon tetrachloride	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
108-90-7	Chlorobenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-00-3	Chloroethane	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
67-66-3	Chloroform	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36

MK 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-33-35
A&B Job Sample ID: 17101525.02
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 12:15
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00

% Moisture 11.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
156-59-2	cis-1,2-Dichloroethyle	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
10061-01-5	cis-1,3-Dichloroprope	< 0.00038	U	0.00038	0.005	0.0004	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
124-48-1	Dibromochloromethan	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
74-95-3	Dibromomethane	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
100-41-4	Ethylbenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
98-82-8	Isopropylbenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
108-38-3&106-4	m- & p-Xylenes	< 0.00094	U	0.00094	0.009	0.001	0.01	0.1	mg/Kg	0.83	10/27/17 14:36
78-93-3	MEK	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-09-2	Methylene chloride	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
91-20-3	Naphthalene	< 0.00038	U	0.00038	0.005	0.0004	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
104-51-8	n-Butylbenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
103-65-1	n-Propylbenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
95-47-6	o-Xylene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
135-98-8	sec-Butylbenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
100-42-5	Styrene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
98-06-6	t-butylbenzene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
127-18-4	Tetrachloroethylene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
108-88-3	Toluene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
156-60-5	trans-1,2-Dichloroethy	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
10061-02-6	trans-1,3-Dichloropro	< 0.00038	U	0.00038	0.005	0.0004	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
79-01-6	Trichloroethylene	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-69-4	Trichlorofluoromethan	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
75-01-4	Vinyl Chloride	< 0.00094	U	0.00094	0.005	0.001	0.005	0.05	mg/Kg	0.83	10/27/17 14:36
1330-20-7	Xylenes	< 0.00094	U	0.00094	0.005	0.001	0.005	0.15	mg/Kg	0.83	10/27/17 14:36
17060-07-0	1,2-Dichloroethane-d4	118					70	130	%	0.83	10/27/17 14:36
1868-53-7	Dibromofluoromethan	111					70	130	%	0.83	10/27/17 14:36
2037-26-5	Toluene-d8(surr)	101					70	130	%	0.83	10/27/17 14:36
460-00-4	p-Bromofluorobenzen	101					70	130	%	0.83	10/27/17 14:36

JKD
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2-33-35
A&B Job Sample ID: 17101525.02
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102795
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102772
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/24/2017 12:15
Date Received 10/24/2017 16:54
Date Prepared 10/26/2017 13:00
% Moisture 11.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	< 26.8	U	26.8	28.2	23.7	25	1000	mg/Kg	1	10/27/17 12:50
TPH-1005-2	>C12-C28	< 22.9	U	22.9	28.2	20.3	25	1000	mg/Kg	1	10/27/17 12:50
TPH-1005-4	>C28-C35	< 20	U	20	28.2	17.7	25	1000	mg/Kg	1	10/27/17 12:50
	Total C6-C35	< 26.8					----	-----	mg/Kg	1	10/27/17 12:50
111-85-3	1-Chlorooctane(surr)	128					60	143	%	1	10/27/17 12:50
3386-33-2	Chlorooctadecane(sur	123					60	150	%	1	10/27/17 12:50

MK 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank-3
A&B Job Sample ID: 17101525.03
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/24/2017
QC Batch ID:	Qb17103065	Date Received	10/24/2017 16:54
Prep Method:	SW-846 5030C	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103036		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/27/17 14:18
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/27/17 14:18
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/27/17 14:18
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18

Soil results reported on dry weight basis

NCF 12.5.17

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank-3
A&B Job Sample ID: 17101525.03
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/24/2017
QC Batch ID:	Qb17103065	Date Received	10/24/2017 16:54
Prep Method:	SW-846 5030C	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103036		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/27/17 14:18
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/27/17 14:18
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/27/17 14:18
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:18
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/27/17 14:18
17060-07-0	1,2-Dichloroethane-d4	108					70	130	%	1	10/27/17 14:18
1868-53-7	Dibromofluoromethan	90.8					70	130	%	1	10/27/17 14:18
2037-26-5	Toluene-d8(surr)	97.6					70	130	%	1	10/27/17 14:18
460-00-4	p-Bromofluorobenzen	92.9					70	130	%	1	10/27/17 14:18

JKD
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: FB-1
A&B Job Sample ID: 17101525.04
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/24/2017 15:05
QC Batch ID:	Qb17103065	Date Received	10/24/2017 16:54
Prep Method:	SW-846 5030C	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103036		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/27/17 14:50
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/27/17 14:50
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/27/17 14:50
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50

NKT 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: FB-1
A&B Job Sample ID: 17101525.04
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/24/2017 15:05
QC Batch ID:	Qb17103065	Date Received	10/24/2017 16:54
Prep Method:	SW-846 5030C	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103036		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/27/17 14:50
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/27/17 14:50
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/27/17 14:50
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/27/17 14:50
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/27/17 14:50
17060-07-0	1,2-Dichloroethane-d4	108					70	130	%	1	10/27/17 14:50
1868-53-7	Dibromofluoromethan	92.5					70	130	%	1	10/27/17 14:50
2037-26-5	Toluene-d8(surr)	97.3					70	130	%	1	10/27/17 14:50
460-00-4	p-Bromofluorobenzen	93.7					70	130	%	1	10/27/17 14:50

JKD
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-21-25
A&B Job Sample ID: 17101525.05

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/24/2017 16:00
QC Batch ID:	Qb17102777	Date Received	10/24/2017 16:54
Prep Method:	SM 2540G	Date Prepared	10/27/2017 15:26
Prepared By:	Alomeda		
Prep Batch ID	PB17102760		
Analyst Initial	AL	% Moisture	14.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	14.5					----	----	%	1	10/27/17 15:50

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-21-25
A&B Job Sample ID: 17101525.05
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Metals by ICP/MS**	Sample Matrix	Soil
Analytical Method:	SW-846 6020B	Date Collected	10/24/2017 16:00
QC Batch ID:	Qb17110224	Date Received	10/24/2017 16:54
Prep Method:	SW-846 3050B	Date Prepared	11/01/2017 10:50
Prepared By:	JYou		
Prep Batch ID	PB17110207		
Analyst Initial	GG	% Moisture	14.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	11.5		0.012	0.146	0.01	0.125	50	mg/Kg	1	11/01/17 16:02

MK 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-21-25
A&B Job Sample ID: 17101525.05
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 16:00
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00

% Moisture 14.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
95-63-6	1,2,4-Trimethylbenze	8.04	JH	0.216	1.08	0.001	0.005	0.05	mg/Kg	185	10/31/17 13:26
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
108-67-8	1,3,5-Trimethylbenze	2.05	JH	0.043	0.216	0.001	0.005	0.05	mg/Kg	37	10/30/17 21:20
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.359	0.075	0.32	1.6	mg/Kg	0.96	10/27/17 22:35
594-20-7	2,2-Dichloropropane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
99-87-6	4-Isopropyltoluene	< 0.216	U	0.216	1.08	0.001	0.005	0.05	mg/Kg	185	10/31/17 13:26
71-43-2	Benzene	0.874	JH	0.043	0.216	0.001	0.005	0.05	mg/Kg	37	10/30/17 21:20
108-86-1	Bromobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-25-2	Bromoform	< 0.00056	U	0.00056	0.006	0.0005	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
74-83-9	Bromomethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-15-0	Carbon disulfide	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
56-23-5	Carbon tetrachloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-00-3	Chloroethane	< 0.003	U	0.003	0.006	0.003	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
67-66-3	Chloroform	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35

NKT 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-21-25
A&B Job Sample ID: 17101525.05
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 16:00
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00

% Moisture 14.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
10061-01-5	cis-1,3-Dichloroprope	< 0.00045	U	0.00045	0.006	0.0004	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
74-95-3	Dibromomethane	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
100-41-4	Ethylbenzene	3.78	JH	0.216	1.08	0.001	0.005	0.05	mg/Kg	185	10/31/17 13:26
98-82-8	Isopropylbenzene	0.594	JH	0.043	0.216	0.001	0.005	0.05	mg/Kg	37	10/30/17 21:20
108-38-3&106-4	m- & p-Xylenes	14	JH	0.216	2.16	0.001	0.01	0.1	mg/Kg	185	10/31/17 13:26
78-93-3	MEK	< 0.002	U	0.002	0.006	0.002	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-09-2	Methylene chloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
91-20-3	Naphthalene	0.883	JH	0.017	0.216	0.0004	0.005	0.05	mg/Kg	37	10/30/17 21:20
104-51-8	n-Butylbenzene	0.335	JH	0.043	0.216	0.001	0.005	0.05	mg/Kg	37	10/30/17 21:20
103-65-1	n-Propylbenzene	1.09	JH	0.043	0.216	0.001	0.005	0.05	mg/Kg	37	10/30/17 21:20
95-47-6	o-Xylene	5.38	JH	0.216	1.08	0.001	0.005	0.05	mg/Kg	185	10/31/17 13:26
135-98-8	sec-Butylbenzene	< 0.216	U	0.216	1.08	0.001	0.005	0.05	mg/Kg	185	10/31/17 13:26
100-42-5	Styrene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
98-06-6	t-butylbenzene	0.019	JH	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
108-88-3	Toluene	3.54	JH	0.216	1.08	0.001	0.005	0.05	mg/Kg	185	10/31/17 13:26
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
10061-02-6	trans-1,3-Dichloropro	< 0.00045	U	0.00045	0.006	0.0004	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.006	0.001	0.005	0.05	mg/Kg	0.96	10/27/17 22:35
1330-20-7	Xylenes	19.4	JH	0.216	1.08	0.001	0.005	0.15	mg/Kg	185	10/31/17 13:26
17060-07-0	1,2-Dichloroethane-d4	402	S1				70	130	%	0.96	10/27/17 22:35
1868-53-7	Dibromofluoromethan	76.2					70	130	%	0.96	10/27/17 22:35
2037-26-5	Toluene-d8(surr)	108					70	130	%	0.96	10/27/17 22:35
460-00-4	p-Bromofluorobenzen	298	S1				70	130	%	0.96	10/27/17 22:35

MKJ
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-21-25
A&B Job Sample ID: 17101525.05
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description: **Total Petroleum Hydrocarbons**
Analytical Method: TX 1005
QC Batch ID: Qb17102795
Prep Method: TX 1005
Prepared By: LLe
Prep Batch ID PB17102772
Analyst Initial LL

Sample Matrix Soil
Date Collected 10/24/2017 16:00
Date Received 10/24/2017 16:54
Date Prepared 10/26/2017 13:00
% Moisture 14.5

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	33.2		27.7	29.2	23.7	25	1000	mg/Kg	1	10/27/17 13:17
TPH-1005-2	>C12-C28	< 23.7	U	23.7	29.2	20.3	25	1000	mg/Kg	1	10/27/17 13:17
TPH-1005-4	>C28-C35	< 20.7	U	20.7	29.2	17.7	25	1000	mg/Kg	1	10/27/17 13:17
	Total C6-C35	33.2					----	----	mg/Kg	1	10/27/17 13:17
111-85-3	1-Chlorooctane(surr)	112					60	143	%	1	10/27/17 13:17
3386-33-2	Chlorooctadecane(sur	104					60	150	%	1	10/27/17 13:17

NLT 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-25-27
A&B Job Sample ID: 17101525.06
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/24/2017 16:15
QC Batch ID:	Qb17102777	Date Received	10/24/2017 16:54
Prep Method:	SM 2540G	Date Prepared	10/27/2017 15:26
Prepared By:	Alomeda		
Prep Batch ID	PB17102760		
Analyst Initial	AL	% Moisture	9.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	9.10					----	----	%	1	10/27/17 15:50

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-25-27
A&B Job Sample ID: 17101525.06

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Metals by ICP/MS**	Sample Matrix	Soil
Analytical Method:	SW-846 6020B	Date Collected	10/24/2017 16:15
QC Batch ID:	Qb17110224	Date Received	10/24/2017 16:54
Prep Method:	SW-846 3050B	Date Prepared	11/01/2017 10:50
Prepared By:	JYou		
Prep Batch ID	PB17110207		
Analyst Initial	GG	% Moisture	9.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	10.1		0.011	0.138	0.01	0.125	50	mg/Kg	1	11/01/17 16:06

MKT
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-25-27
A&B Job Sample ID: 17101525.06
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020

Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 16:15
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00

% Moisture 9.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
71-55-6	1,1,1-Trichloroethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
79-34-5	1,1,2,2-Tetrachloroet	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
79-00-5	1,1,2-Trichloroethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-34-3	1,1-Dichloroethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-35-4	1,1-Dichloroethylene	< 0.088	U	0.088	0.220	0.002	0.005	0.05	mg/Kg	40	10/28/17 06:50
563-58-6	1,1-Dichloropropene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
87-61-6	1,2,3-trichlorobenzen	< 0.088	U	0.088	0.220	0.002	0.005	0.05	mg/Kg	40	10/28/17 06:50
96-18-4	1,2,3-Trichloropropan	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
120-82-1	1,2,4-Trichlorobenzen	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
95-63-6	1,2,4-Trimethylbenze	58.1	JH	2.23	11.1	0.001	0.005	0.05	mg/Kg	2025	10/31/17 12:22
96-12-8	1,2-Dibromo-3-chloro	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
106-93-4	1,2-Dibromoethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
95-50-1	1,2-Dichlorobenzene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
107-06-2	1,2-Dichloroethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
78-87-5	1,2-Dichloropropane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
108-67-8	1,3,5-Trimethylbenze	18.9	JH	0.880	4.40	0.001	0.005	0.05	mg/Kg	800	10/30/17 18:27
541-73-1	1,3-Dichlorobenzene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
142-28-9	1,3-Dichloropropane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
106-46-7	1,4-Dichlorobenzene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
123-91-1	1,4-Dioxane	< 3.30	U	3.30	14.1	0.075	0.32	1.6	mg/Kg	40	10/28/17 06:50
594-20-7	2,2-Dichloropropane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
95-49-8	2-Chlorotoluene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
106-43-4	4-Chlorotoluene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
99-87-6	4-Isopropyltoluene	1.49	JH	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
71-43-2	Benzene	7.58	JH	0.880	4.40	0.001	0.005	0.05	mg/Kg	800	10/30/17 18:27
108-86-1	Bromobenzene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
74-97-5	Bromochloromethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-27-4	Bromodichloromethan	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-25-2	Bromoform	< 0.022	U	0.022	0.220	0.0005	0.005	0.05	mg/Kg	40	10/28/17 06:50
74-83-9	Bromomethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-15-0	Carbon disulfide	< 0.088	U	0.088	0.220	0.002	0.005	0.05	mg/Kg	40	10/28/17 06:50
56-23-5	Carbon tetrachloride	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
108-90-7	Chlorobenzene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-00-3	Chloroethane	< 0.132	U	0.132	0.220	0.003	0.005	0.05	mg/Kg	40	10/28/17 06:50
67-66-3	Chloroform	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50

MKT 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-25-27
A&B Job Sample ID: 17101525.06
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103020
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017 16:15
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00
% Moisture 9.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
156-59-2	cis-1,2-Dichloroethyle	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
10061-01-5	cis-1,3-Dichloroprope	< 0.018	U	0.018	0.220	0.0004	0.005	0.05	mg/Kg	40	10/28/17 06:50
124-48-1	Dibromochloromethan	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
74-95-3	Dibromomethane	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-71-8	Dichlorodifluorometha	< 0.088	U	0.088	0.220	0.002	0.005	0.05	mg/Kg	40	10/28/17 06:50
100-41-4	Ethylbenzene	28.6	JH	0.880	4.40	0.001	0.005	0.05	mg/Kg	800	10/30/17 18:27
98-82-8	Isopropylbenzene	< 2.23	U	2.23	11.1	0.001	0.005	0.05	mg/Kg	2025	10/31/17 12:22
108-38-3&106-4	m- & p-Xylenes	99.1	JH	2.23	22.3	0.001	0.01	0.1	mg/Kg	2025	10/31/17 12:22
78-93-3	MEK	< 0.088	U	0.088	0.220	0.002	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-09-2	Methylene chloride	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
91-20-3	Naphthalene	6.80	JH	0.352	4.40	0.0004	0.005	0.05	mg/Kg	800	10/30/17 18:27
104-51-8	n-Butylbenzene	5.32	JH	2.23	11.1	0.001	0.005	0.05	mg/Kg	2025	10/31/17 12:22
103-65-1	n-Propylbenzene	11.1	JH	0.880	4.40	0.001	0.005	0.05	mg/Kg	800	10/30/17 18:27
95-47-6	o-Xylene	43	JH	0.880	4.40	0.001	0.005	0.05	mg/Kg	800	10/30/17 18:27
135-98-8	sec-Butylbenzene	1.44	JH	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
100-42-5	Styrene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
98-06-6	t-butylbenzene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
127-18-4	Tetrachloroethylene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
108-88-3	Toluene	45.9	JH	2.23	11.1	0.001	0.005	0.05	mg/Kg	2025	10/31/17 12:22
156-60-5	trans-1,2-Dichloroethy	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
10061-02-6	trans-1,3-Dichloropro	< 0.018	U	0.018	0.220	0.0004	0.005	0.05	mg/Kg	40	10/28/17 06:50
79-01-6	Trichloroethylene	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-69-4	Trichlorofluoromethan	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
75-01-4	Vinyl Chloride	< 0.044	U	0.044	0.220	0.001	0.005	0.05	mg/Kg	40	10/28/17 06:50
1330-20-7	Xylenes	142.1	JH	2.23	11.1	0.001	0.005	0.15	mg/Kg	2025	10/31/17 12:22
17060-07-0	1,2-Dichloroethane-d4	122					70	130	%	40	10/28/17 06:50
1868-53-7	Dibromofluoromethan	96.9					70	130	%	40	10/28/17 06:50
2037-26-5	Toluene-d8(surr)	96					70	130	%	40	10/28/17 06:50
460-00-4	p-Bromofluorobenzen	189	S1				70	130	%	40	10/28/17 06:50

NKJ
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4-25-27
A&B Job Sample ID: 17101525.06
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/24/2017 16:15
QC Batch ID:	Qb17102795	Date Received	10/24/2017 16:54
Prep Method:	TX 1005	Date Prepared	10/26/2017 13:00
Prepared By:	LLe		
Prep Batch ID	PB17102772		
Analyst Initial	LL	% Moisture	9.1

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	31.4		26.1	27.5	23.7	25	1000	mg/Kg	1	10/27/17 22:30
TPH-1005-2	>C12-C28	< 22.3	U	22.3	27.5	20.3	25	1000	mg/Kg	1	10/27/17 22:30
TPH-1005-4	>C28-C35	< 19.5	U	19.5	27.5	17.7	25	1000	mg/Kg	1	10/27/17 22:30
	Total C6-C35	31.4					----	----	mg/Kg	1	10/27/17 22:30
111-85-3	1-Chlorooctane(surr)	96.1					60	143	%	1	10/27/17 22:30
3386-33-2	Chlorooctadecane(sur	89					60	150	%	1	10/27/17 22:30

NKT
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: DUP 2
A&B Job Sample ID: 17101525.07

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**% Moisture**	Sample Matrix	Soil
Analytical Method:	SM 2540G	Date Collected	10/24/2017
QC Batch ID:	Qb17103190	Date Received	10/24/2017 16:54
Prep Method:	SM 2540G	Date Prepared	10/31/2017 16:30
Prepared By:	Alomeda		
Prep Batch ID	PB17103182		
Analyst Initial	AL	% Moisture	10.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
	% Moisture	10.6					----	----	%	1	10/31/17 16:40

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: DUP 2
A&B Job Sample ID: 17101525.07

Date: 11/17/2017

Client Name:	Weston Solutions
Project Name:	DRA Block 333 Phase II

Attn: Dawn Denham

Test Description:	**Metals by ICP/MS**	Sample Matrix	Soil
Analytical Method:	SW-846 6020B	Date Collected	10/24/2017
QC Batch ID:	Qb17110224	Date Received	10/24/2017 16:54
Prep Method:	SW-846 3050B	Date Prepared	11/01/2017 10:50
Prepared By:	JYou		
Prep Batch ID	PB17110207		
Analyst Initial	GG	% Moisture	10.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	10.2		0.011	0.140	0.01	0.125	50	mg/Kg	1	11/01/17 16:12

NKT
12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: DUP 2
A&B Job Sample ID: 17101525.07
Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103038
Prep Method: SW-846 5035A
Prepared By: Jdongre
Prep Batch ID PB17103173
Analyst Initial JKD

Sample Matrix Soil
Date Collected 10/24/2017
Date Received 10/24/2017 16:54
Date Prepared 10/27/2017 10:00
% Moisture 10.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
71-55-6	1,1,1-Trichloroethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
79-34-5	1,1,2,2-Tetrachloroet	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
79-00-5	1,1,2-Trichloroethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-34-3	1,1-Dichloroethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-35-4	1,1-Dichloroethylene	< 0.002	U	0.002	0.004	0.002	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
563-58-6	1,1-Dichloropropene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
87-61-6	1,2,3-trichlorobenzen	< 0.002	U	0.002	0.004	0.002	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
96-18-4	1,2,3-Trichloropropan	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
120-82-1	1,2,4-Trichlorobenzen	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
95-63-6	1,2,4-Trimethylbenze	52.5		2.52	12.6	0.001	0.005	0.05	mg/Kg	2250	10/31/17 20:24
96-12-8	1,2-Dibromo-3-chloro	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
106-93-4	1,2-Dibromoethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
95-50-1	1,2-Dichlorobenzene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
107-06-2	1,2-Dichloroethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
78-87-5	1,2-Dichloropropane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
108-67-8	1,3,5-Trimethylbenze	14.4		2.52	12.6	0.001	0.005	0.05	mg/Kg	2250	10/31/17 20:24
541-73-1	1,3-Dichlorobenzene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
142-28-9	1,3-Dichloropropane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
106-46-7	1,4-Dichlorobenzene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
123-91-1	1,4-Dioxane	< 0.065	U	0.065	0.279	0.075	0.32	1.6	mg/Kg	0.78	10/27/17 23:08
594-20-7	2,2-Dichloropropane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
95-49-8	2-Chlorotoluene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
106-43-4	4-Chlorotoluene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
99-87-6	4-Isopropyltoluene	1.21		0.05	0.252	0.001	0.005	0.05	mg/Kg	45	10/30/17 20:45
71-43-2	Benzene	4.97		0.252	1.26	0.001	0.005	0.05	mg/Kg	225	10/31/17 19:49
108-86-1	Bromobenzene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
74-97-5	Bromochloromethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-27-4	Bromodichloromethan	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-25-2	Bromoform	< 0.00044	U	0.00044	0.004	0.0005	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
74-83-9	Bromomethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-15-0	Carbon disulfide	< 0.002	U	0.002	0.004	0.002	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
56-23-5	Carbon tetrachloride	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
108-90-7	Chlorobenzene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-00-3	Chloroethane	< 0.003	U	0.003	0.004	0.003	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
67-66-3	Chloroform	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08

JKD 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: DUP 2
A&B Job Sample ID: 17101525.07

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:		Sample Matrix	Soil
Analytical Method:	SW-846 8260C	Date Collected	10/24/2017
QC Batch ID:	Qb17103038	Date Received	10/24/2017 16:54
Prep Method:	SW-846 5035A	Date Prepared	10/27/2017 10:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103173		
Analyst Initial	JKD	% Moisture	10.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
156-59-2	cis-1,2-Dichloroethyle	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
10061-01-5	cis-1,3-Dichloroprope	< 0.00035	U	0.00035	0.004	0.0004	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
124-48-1	Dibromochloromethan	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
74-95-3	Dibromomethane	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-71-8	Dichlorodifluorometha	< 0.002	U	0.002	0.004	0.002	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
100-41-4	Ethylbenzene	23.3		2.52	12.6	0.001	0.005	0.05	mg/Kg	2250	10/31/17 20:24
98-82-8	Isopropylbenzene	4.02		0.252	1.26	0.001	0.005	0.05	mg/Kg	225	10/31/17 19:49
108-38-3&106-4	m- & p-Xylenes	82.3		2.52	25.2	0.001	0.01	0.1	mg/Kg	2250	10/31/17 20:24
78-93-3	MEK	< 0.002	U	0.002	0.004	0.002	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-09-2	Methylene chloride	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
91-20-3	Naphthalene	7.87		0.101	1.26	0.0004	0.005	0.05	mg/Kg	225	10/31/17 19:49
104-51-8	n-Butylbenzene	3.15		0.252	1.26	0.001	0.005	0.05	mg/Kg	225	10/31/17 19:49
103-65-1	n-Propylbenzene	9.30		0.252	1.26	0.001	0.005	0.05	mg/Kg	225	10/31/17 19:49
95-47-6	o-Xylene	33.6		2.52	12.6	0.001	0.005	0.05	mg/Kg	2250	10/31/17 20:24
135-98-8	sec-Butylbenzene	1.14		0.05	0.252	0.001	0.005	0.05	mg/Kg	45	10/30/17 20:45
100-42-5	Styrene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
98-06-6	t-butylbenzene	0.013		0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
127-18-4	Tetrachloroethylene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
108-88-3	Toluene	39.3		2.52	12.6	0.001	0.005	0.05	mg/Kg	2250	10/31/17 20:24
156-60-5	trans-1,2-Dichloroethy	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
10061-02-6	trans-1,3-Dichloropro	< 0.00035	U	0.00035	0.004	0.0004	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
79-01-6	Trichloroethylene	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-69-4	Trichlorofluoromethan	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
75-01-4	Vinyl Chloride	< 0.00087	U	0.00087	0.004	0.001	0.005	0.05	mg/Kg	0.78	10/27/17 23:08
1330-20-7	Xylenes	116		2.52	12.6	0.001	0.005	0.15	mg/Kg	2250	10/31/17 20:24
17060-07-0	1,2-Dichloroethane-d4	269	S1				70	130	%	0.78	10/27/17 23:08
1868-53-7	Dibromofluoromethan	87.1					70	130	%	0.78	10/27/17 23:08
2037-26-5	Toluene-d8(surr)	121					70	130	%	0.78	10/27/17 23:08
460-00-4	p-Bromofluorobenzen	569	S1				70	130	%	0.78	10/27/17 23:08

JKD 12-5-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: DUP 2
A&B Job Sample ID: 17101525.07

Date: 11/17/2017

Client Name: Weston Solutions
Attn: Dawn Denham

Project Name: DRA Block 333 Phase II

Test Description:	**Total Petroleum Hydrocarbons**	Sample Matrix	Soil
Analytical Method:	TX 1005	Date Collected	10/24/2017
QC Batch ID:	Qb17102795	Date Received	10/24/2017 16:54
Prep Method:	TX 1005	Date Prepared	10/26/2017 13:00
Prepared By:	LLe		
Prep Batch ID	PB17102772		
Analyst Initial	LL	% Moisture	10.6

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
TPH-1005-1	C6-C12	45		26.5	28	23.7	25	1000	mg/Kg	1	10/27/17 22:57
TPH-1005-2	>C12-C28	< 22.7	U	22.7	28	20.3	25	1000	mg/Kg	1	10/27/17 22:57
TPH-1005-4	>C28-C35	< 19.8	U	19.8	28	17.7	25	1000	mg/Kg	1	10/27/17 22:57
	Total C6-C35	45					----	----	mg/Kg	1	10/27/17 22:57
111-85-3	1-Chlorooctane(surr)	114					60	143	%	1	10/27/17 22:57
3386-33-2	Chlorooctadecane(sur	95.7					60	150	%	1	10/27/17 22:57

MK
12-5-17

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : % Moisture **Method : SM 2540G** **Reporting Units : %**

QC Batch ID : Qb17102777 **Created Date :** 10/27/17 **Created By :** Alomeda

Samples in This QC Batch : 17101525.01,02,05,06

Sample Preparation : PB17102760 **Prep Method :** SM 2540G **Prep Date :** 10/27/17 15:26 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
% Moisture		< MDL	%	1	----			

QC Type: Duplicate

QC Sample ID: 17101472.01

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	BRL	BRL	%		20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Total Petroleum Hydrocarbons **Method :** TX 1005 **Reporting Units :** mg/Kg

QC Batch ID : Qb17102795 **Created Date :** 10/26/17 **Created By :** LLe

Samples in This QC Batch : 17101525.01,02,05,06,07

Sample Preparation : PB17102772 **Prep Method :** TX 1005 **Prep Date :** 10/26/17 13:00 **Prep By :** LLe

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
C6-C12	TPH-1005-1	< MDL	mg/Kg	1	25	23.7		
>C12-C28	TPH-1005-2	< MDL	mg/Kg	1	25	20.3		
>C28-C35	TPH-1005-4	< MDL	mg/Kg	1	25	17.7		
Total C6-C35		< MDL	mg/Kg	1	----			
Chlorooctadecane(surr)	3386-33-2	101	%	1				
1-Chlorooctane(surr)	111-85-3	106	%	1				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	452	90.4	500	485	97	7	20	75-125	
>C12-C28	500	518	104	500	561	112	8	20	75-125	
>C28-C35	500	464	92.8	500	512	102	9.8	20	75-125	

QC Type: MS and MSD
QC Sample ID: 17101459.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
C6-C12	BRL	500	558	112	500	437	87.4	24.3	20	75-125	R1
>C12-C28	BRL	500	502	100	500	455	91	9.8	20	75-125	
>C28-C35	BRL	500	475	95	500	486	97.2	2.3	20	75-125	

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.01,02,05,06,07

Sample Preparation :	PB17103020	**Prep Method :** SW-846 5035A	**Prep Date :** 10/27/17 10:00	**Prep By :** Jdongre
	PB17103173	SW-846 5035A	10/27/17 10:00	Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/Kg	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/Kg	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/Kg	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/Kg	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/Kg	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/Kg	1	0.005	0.002	
1,1-Dichloropropene	563-58-6	< MDL	mg/Kg	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/Kg	1	0.005	0.002	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/Kg	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/Kg	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/Kg	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/Kg	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/Kg	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/Kg	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/Kg	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/Kg	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/Kg	1	0.32	0.075	
2,2-Dichloropropane	594-20-7	< MDL	mg/Kg	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/Kg	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/Kg	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/Kg	1	0.005	0.001	
Benzene	71-43-2	< MDL	mg/Kg	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/Kg	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/Kg	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/Kg	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/Kg	1	0.005	0.0005	
Bromomethane	74-83-9	< MDL	mg/Kg	1	0.005	0.001	
Carbon disulfide	75-15-0	< MDL	mg/Kg	1	0.005	0.002	
Carbon tetrachloride	56-23-5	< MDL	mg/Kg	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/Kg	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/Kg	1	0.005	0.003	
Chloroform	67-66-3	< MDL	mg/Kg	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/Kg	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/Kg**

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.01,02,05,06,07

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/Kg	1	0.005	0.001	
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/Kg	1	0.005	0.0004	
Dibromochloromethane	124-48-1	< MDL	mg/Kg	1	0.005	0.001	
Dibromomethane	74-95-3	< MDL	mg/Kg	1	0.005	0.001	
Dichlorodifluoromethane	75-71-8	< MDL	mg/Kg	1	0.005	0.002	
Ethylbenzene	100-41-4	< MDL	mg/Kg	1	0.005	0.001	
Isopropylbenzene	98-82-8	< MDL	mg/Kg	1	0.005	0.001	
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/Kg	1	0.01	0.001	
MEK	78-93-3	< MDL	mg/Kg	1	0.005	0.002	
Methylene chloride	75-09-2	< MDL	mg/Kg	1	0.005	0.001	
Naphthalene	91-20-3	< MDL	mg/Kg	1	0.005	0.0004	
n-Butylbenzene	104-51-8	< MDL	mg/Kg	1	0.005	0.001	
n-Propylbenzene	103-65-1	< MDL	mg/Kg	1	0.005	0.001	
o-Xylene	95-47-6	< MDL	mg/Kg	1	0.005	0.001	
sec-Butylbenzene	135-98-8	< MDL	mg/Kg	1	0.005	0.001	
Styrene	100-42-5	< MDL	mg/Kg	1	0.005	0.001	
t-butylbenzene	98-06-6	< MDL	mg/Kg	1	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/Kg	1	0.005	0.001	
Toluene	108-88-3	< MDL	mg/Kg	1	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/Kg	1	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/Kg	1	0.005	0.0004	
Trichloroethylene	79-01-6	< MDL	mg/Kg	1	0.005	0.001	
Trichlorofluoromethane	75-69-4	< MDL	mg/Kg	1	0.005	0.001	
Vinyl Chloride	75-01-4	< MDL	mg/Kg	1	0.005	0.001	
Xylenes	1330-20-7	< MDL	mg/Kg	1	0.005	0.001	
Dibromofluoromethane(surr	1868-53-7	111	%	1			
1,2-Dichloroethane-d4(surr	17060-07-0	110	%	1			
Toluene-d8(surr)	2037-26-5	103	%	1			
p-Bromofluorobenzene(surr	460-00-4	97.9	%	1			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.022	110	0.02	0.021	105	4.7	30	71.4-131	
1,1,1-Trichloroethane	0.02	0.023	115	0.02	0.021	105	9.1	30	69.6-140	
1,1,2,2-Tetrachloroethane	0.02	0.021	105	0.02	0.019	95	10	30	66.6-128	
1,1,2-Trichloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	72.8-125	
1,1-Dichloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	72.7-129	
1,1-Dichloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.4-131	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.01,02,05,06,07

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloropropene	0.02	0.022	110	0.02	0.02	100	9.5	30	75.9-132	
1,2,3-trichlorobenzene	0.02	0.021	105	0.02	0.019	95	10	30	56.7-153	
1,2,3-Trichloropropane	0.02	0.02	100	0.02	0.018	90	10.5	30	61.6-138	
1,2,4-Trichlorobenzene	0.02	0.02	100	0.02	0.018	90	10.5	30	55.9-150	
1,2,4-Trimethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.1-131	
1,2-Dibromo-3-chloropropa	0.02	0.018	90	0.02	0.015	75	18.2	30	52.4-150	
1,2-Dibromoethane	0.02	0.021	105	0.02	0.02	100	4.9	30	72.9-125	
1,2-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	76.1-126	
1,2-Dichloroethane	0.02	0.023	115	0.02	0.021	105	9.1	30	66.4-134	
1,2-Dichloropropane	0.02	0.022	110	0.02	0.02	100	9.5	30	70.2-128	
1,3,5-Trimethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	75.1-127	
1,3-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	73.9-126	
1,3-Dichloropropane	0.02	0.02	100	0.02	0.019	95	5.1	30	68.3-124	
1,4-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.3-127	
1,4-Dioxane	0.64	0.59	92.2	0.64	0.526	82.2	11.5	30	80-120	
2,2-Dichloropropane	0.02	0.024	120	0.02	0.021	105	13.3	30	68.5-138	
2-Chlorotoluene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.7-128	
4-Chlorotoluene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.2-126	
4-Isopropyltoluene	0.02	0.022	110	0.02	0.02	100	9.5	30	77.5-125	
Benzene	0.02	0.024	120	0.02	0.022	110	8.7	30	74-126	
Bromobenzene	0.02	0.021	105	0.02	0.02	100	4.9	30	73.3-129	
Bromochloromethane	0.02	0.023	115	0.02	0.021	105	9.1	30	68.8-131	
Bromodichloromethane	0.02	0.024	120	0.02	0.022	110	8.7	30	69-135	
Bromoform	0.02	0.021	105	0.02	0.019	95	10	30	62-146	
Bromomethane	0.02	0.021	105	0.02	0.02	100	4.9	30	58.7-139	
Carbon disulfide	0.02	0.015	75	0.02	0.014	70	6.9	30	80-120	L2
Carbon tetrachloride	0.02	0.026	130	0.02	0.024	120	8	30	68.7-135	
Chlorobenzene	0.02	0.022	110	0.02	0.021	105	4.7	30	73.3-129	
Chloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	66.2-129	
Chloroform	0.02	0.023	115	0.02	0.021	105	9.1	30	73.7-134	
Chloromethane	0.02	0.026	130	0.02	0.024	120	8	30	51.4-135	
cis-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.02	100	14	30	72.4-132	
cis-1,3-Dichloropropene	0.02	0.022	110	0.02	0.019	95	14.6	30	67.7-134	
Dibromochloromethane	0.02	0.022	110	0.02	0.02	100	9.5	30	73.2-126	
Dibromomethane	0.02	0.022	110	0.02	0.02	100	9.5	30	69.9-134	
Dichlorodifluoromethane	0.02	0.026	130	0.02	0.024	120	8	30	36.8-144	
Ethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.2-128	
Isopropylbenzene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.2-131	
m- & p-Xylenes	0.04	0.045	113	0.04	0.042	105	6.9	30	70.7-131	
MEK	0.02	0.018	90	0.02	0.017	85	5.7	30	52.5-152	
Methylene chloride	0.02	0.023	115	0.02	0.02	100	14	30	70.6-129	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/Kg**

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.01,02,05,06,07

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Naphthalene	0.02	0.018	90	0.02	0.016	80	11.8	30	60.7-145	
n-Butylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	66.5-136	
n-Propylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	73.3-126	
o-Xylene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.6-130	
sec-Butylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	30	77.9-124	
Styrene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.1-131	
t-butylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	74.4-130	
Tetrachloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	62.6-157	
Toluene	0.02	0.022	110	0.02	0.021	105	4.7	30	73.3-127	
trans-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	80-120	
trans-1,3-Dichloropropene	0.02	0.021	105	0.02	0.019	95	10	30	71.5-124	
Trichloroethylene	0.02	0.024	120	0.02	0.021	105	13.3	30	69.2-133	
Trichlorofluoromethane	0.02	0.025	125	0.02	0.022	110	12.8	30	63.9-140	
Vinyl Chloride	0.02	0.021	105	0.02	0.019	95	10	30	40.9-159	
Xylenes	0.06	0.067	112	0.06	0.062	103	7.8	30	69.2-133	

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.017	0.019	112						71.4-131	
1,1,1-Trichloroethane	BRL	0.017	0.019	112						69.6-140	
1,1,2,2-Tetrachloroethane	BRL	0.017	0.019	112						66.6-128	
1,1,2-Trichloroethane	BRL	0.017	0.019	112						72.8-125	
1,1-Dichloroethane	BRL	0.017	0.018	106						72.7-129	
1,1-Dichloroethylene	BRL	0.017	0.019	112						71.4-131	
1,1-Dichloropropene	BRL	0.017	0.018	106						75.9-132	
1,2,3-trichlorobenzene	BRL	0.017	0.017	100						56.7-153	
1,2,3-Trichloropropane	BRL	0.017	0.02	118						61.6-138	
1,2,4-Trichlorobenzene	BRL	0.017	0.015	88.2						55.9-150	
1,2,4-Trimethylbenzene	BRL	0.017	0.018	106						71.1-131	
1,2-Dibromo-3-chloropropa	BRL	0.017	0.017	100						52.4-150	
1,2-Dibromoethane	BRL	0.017	0.019	112						72.9-125	
1,2-Dichlorobenzene	BRL	0.017	0.018	106						76.1-126	
1,2-Dichloroethane	BRL	0.017	0.02	118						66.4-134	
1,2-Dichloropropane	BRL	0.017	0.019	112						70.2-128	
1,3,5-Trimethylbenzene	BRL	0.017	0.017	100						75.1-127	
1,3-Dichlorobenzene	BRL	0.017	0.017	100						73.9-126	
1,3-Dichloropropane	BRL	0.017	0.018	106						68.3-124	
1,4-Dichlorobenzene	BRL	0.017	0.017	100						72.3-127	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.01,02,05,06,07

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,4-Dioxane	BRL	0.64	0.721	113						70-130	
2,2-Dichloropropane	BRL	0.017	0.017	100						68.5-138	
2-Chlorotoluene	BRL	0.017	0.018	106						71.7-128	
4-Chlorotoluene	BRL	0.017	0.017	100						72.2-126	
4-Isopropyltoluene	BRL	0.017	0.017	100						77.5-125	
Benzene	BRL	0.017	0.02	118						74-126	
Bromobenzene	BRL	0.017	0.018	106						73.3-129	
Bromochloromethane	BRL	0.017	0.019	112						68.8-131	
Bromodichloromethane	BRL	0.017	0.02	118						69-135	
Bromoform	BRL	0.017	0.019	112						62-146	
Bromomethane	BRL	0.017	0.015	88.2						58.7-139	
Carbon disulfide	BRL	0.017	0.012	70.6						70-130	
Carbon tetrachloride	BRL	0.017	0.02	118						68.7-135	
Chlorobenzene	BRL	0.017	0.018	106						73.3-129	
Chloroethane	BRL	0.017	0.016	94.1						66.2-129	
Chloroform	BRL	0.017	0.019	112						73.7-134	
Chloromethane	BRL	0.017	0.021	124						51.4-135	
cis-1,2-Dichloroethylene	BRL	0.017	0.018	106						72.4-132	
cis-1,3-Dichloropropene	BRL	0.017	0.018	106						67.7-134	
Dibromochloromethane	BRL	0.017	0.019	112						73.2-126	
Dibromomethane	BRL	0.017	0.02	118						69.9-134	
Dichlorodifluoromethane	BRL	0.017	0.027	159						36.8-144	M8
Ethylbenzene	BRL	0.017	0.018	106						72.2-128	
Isopropylbenzene	BRL	0.017	0.018	106						71.2-131	
m- & p-Xylenes	BRL	0.034	0.035	103						70.7-131	
MEK	BRL	0.017	0.019	112						52.5-152	
Methylene chloride	BRL	0.017	0.016	94.1						70.6-129	
Naphthalene	BRL	0.017	0.018	106						60.7-145	
n-Butylbenzene	BRL	0.017	0.016	94.1						66.5-136	
n-Propylbenzene	BRL	0.017	0.017	100						73.3-126	
o-Xylene	BRL	0.017	0.018	106						71.6-130	
sec-Butylbenzene	BRL	0.017	0.018	106						77.9-124	
Styrene	BRL	0.017	0.018	106						71.1-131	
t-butylbenzene	BRL	0.017	0.018	106						74.4-130	
Tetrachloroethylene	BRL	0.017	0.02	118						62.6-157	
Toluene	BRL	0.017	0.018	106						73.3-127	
trans-1,2-Dichloroethylene	BRL	0.017	0.018	106						70-130	
trans-1,3-Dichloropropene	BRL	0.017	0.017	100						71.5-124	
Trichloroethylene	BRL	0.017	0.02	118						69.2-133	
Trichlorofluoromethane	BRL	0.017	0.016	94.1						63.9-140	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/Kg**

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.01,02,05,06,07

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Vinyl Chloride	BRL	0.017	0.016	94.1						40.9-159	
Xylenes	BRL	0.051	0.053	104						69.2-133	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103065 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.03,04

Sample Preparation : PB17103036 **Prep Method :** SW-846 5030C **Prep Date :** 10/27/17 10:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/L	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/L	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/L	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloropropene	563-58-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/L	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/L	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/L	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/L	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/L	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/L	1	0.32	0.084	
2,2-Dichloropropane	594-20-7	< MDL	mg/L	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/L	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/L	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/L	1	0.005	0.003	
Benzene	71-43-2	< MDL	mg/L	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/L	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/L	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/L	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/L	1	0.005	0.001	
Bromomethane	74-83-9	< MDL	mg/L	1	0.005	0.002	
Carbon disulfide	75-15-0	< MDL	mg/L	1	0.005	0.001	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/L	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/L	1	0.005	0.001	
Chloroform	67-66-3	< MDL	mg/L	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/L	1	0.005	0.001	
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/L	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103065 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.03,04

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/L	1	0.005	0.001	
Dibromochloromethane	124-48-1	< MDL	mg/L	1	0.005	0.001	
Dibromomethane	74-95-3	< MDL	mg/L	1	0.005	0.001	
Dichlorodifluoromethane	75-71-8	< MDL	mg/L	1	0.005	0.003	
Ethylbenzene	100-41-4	< MDL	mg/L	1	0.005	0.001	
Isopropylbenzene	98-82-8	< MDL	mg/L	1	0.005	0.001	
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/L	1	0.01	0.002	
MEK	78-93-3	< MDL	mg/L	1	0.005	0.001	
Methylene chloride	75-09-2	< MDL	mg/L	1	0.005	0.001	
Naphthalene	91-20-3	< MDL	mg/L	1	0.005	0.002	
n-Butylbenzene	104-51-8	< MDL	mg/L	1	0.005	0.001	
n-Propylbenzene	103-65-1	< MDL	mg/L	1	0.005	0.001	
o-Xylene	95-47-6	< MDL	mg/L	1	0.005	0.001	
sec-Butylbenzene	135-98-8	< MDL	mg/L	1	0.005	0.001	
Styrene	100-42-5	< MDL	mg/L	1	0.005	0.001	
t-butylbenzene	98-06-6	< MDL	mg/L	1	0.005	0.001	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1	0.005	0.001	
Toluene	108-88-3	< MDL	mg/L	1	0.005	0.001	
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/L	1	0.005	0.001	
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/L	1	0.005	0.001	
Trichloroethylene	79-01-6	< MDL	mg/L	1	0.005	0.001	
Trichlorofluoromethane	75-69-4	< MDL	mg/L	1	0.005	0.001	
Vinyl Chloride	75-01-4	< MDL	mg/L	1	0.005	0.001	
Xylenes	1330-20-7	< MDL	mg/L	1	0.015	0.002	
Dibromofluoromethane(surr	1868-53-7	90.6	%	1			
1,2-Dichloroethane-d4(surr	17060-07-0	98.8	%	1			
Toluene-d8(surr)	2037-26-5	98.8	%	1			
p-Bromofluorobenzene(surr	460-00-4	94	%	1			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.021	105	0.02	0.021	105	0.0	12	82.6-121	
1,1,1-Trichloroethane	0.02	0.019	95	0.02	0.018	90	5.4	13	82.8-123	
1,1,2,2-Tetrachloroethane	0.02	0.019	95	0.02	0.019	95	0.0	20	77.5-122	
1,1,2-Trichloroethane	0.02	0.02	100	0.02	0.02	100	0.0	14	81.1-119	
1,1-Dichloroethane	0.02	0.018	90	0.02	0.017	85	5.7	12	74.5-125	
1,1-Dichloroethylene	0.02	0.019	95	0.02	0.016	80	17.1	12	75.4-124	R4
1,1-Dichloropropene	0.02	0.018	90	0.02	0.017	85	5.7	12	76.9-125	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103065 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.03,04

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,3-trichlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	20	70.8-125	
1,2,3-Trichloropropane	0.02	0.019	95	0.02	0.018	90	5.4	22	69.6-126	
1,2,4-Trichlorobenzene	0.02	0.02	100	0.02	0.019	95	5.1	16	74.8-121	
1,2,4-Trimethylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	12	80.4-114	
1,2-Dibromo-3-chloropropa	0.02	0.02	100	0.02	0.019	95	5.1	27	61.7-140	
1,2-Dibromoethane	0.02	0.02	100	0.02	0.02	100	0.0	15	80.6-118	
1,2-Dichlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	82.6-113	
1,2-Dichloroethane	0.02	0.02	100	0.02	0.02	100	0.0	14	72.8-126	
1,2-Dichloropropane	0.02	0.019	95	0.02	0.019	95	0.0	13	82.4-120	
1,3,5-Trimethylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	10	81.3-114	
1,3-Dichlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	83.4-113	
1,3-Dichloropropane	0.02	0.019	95	0.02	0.019	95	0.0	16	79.8-115	
1,4-Dichlorobenzene	0.02	0.02	100	0.02	0.02	100	0.0	11	82.6-113	
1,4-Dioxane	0.64	0.641	100	0.64	0.655	102	2.2	30	70-130	
2,2-Dichloropropane	0.02	0.018	90	0.02	0.017	85	5.7	15	69.4-131	
2-Chlorotoluene	0.02	0.019	95	0.02	0.019	95	0.0	17	77.8-118	
4-Chlorotoluene	0.02	0.019	95	0.02	0.019	95	0.0	15	78.8-117	
4-Isopropyltoluene	0.02	0.02	100	0.02	0.019	95	5.1	11	80.9-114	
Benzene	0.02	0.02	100	0.02	0.019	95	5.1	11	84.1-118	
Bromobenzene	0.02	0.02	100	0.02	0.02	100	0.0	12	82.8-116	
Bromochloromethane	0.02	0.018	90	0.02	0.017	85	5.7	15	70.7-131	
Bromodichloromethane	0.02	0.021	105	0.02	0.02	100	4.9	12	83.1-119	
Bromoform	0.02	0.022	110	0.02	0.021	105	4.7	20	70.3-136	
Bromomethane	0.02	0.019	95	0.02	0.018	90	5.4	23	59-134	
Carbon disulfide	0.02	0.018	90	0.02	0.016	80	11.8	30	70-130	
Carbon tetrachloride	0.02	0.022	110	0.02	0.021	105	4.7	13	74.6-129	
Chlorobenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	87.8-110	
Chloroethane	0.02	0.022	110	0.02	0.019	95	14.6	13	73.7-124	R4
Chloroform	0.02	0.019	95	0.02	0.019	95	0.0	10	76.4-124	
Chloromethane	0.02	0.017	85	0.02	0.016	80	6.1	15	59.4-138	
cis-1,2-Dichloroethylene	0.02	0.018	90	0.02	0.017	85	5.7	15	74.3-124	
cis-1,3-Dichloropropene	0.02	0.02	100	0.02	0.019	95	5.1	11	84.6-117	
Dibromochloromethane	0.02	0.021	105	0.02	0.021	105	0.0	13	80.3-122	
Dibromomethane	0.02	0.02	100	0.02	0.02	100	0.0	16	75.8-126	
Dichlorodifluoromethane	0.02	0.016	80	0.02	0.016	80	0.0	15	44.4-149	
Ethylbenzene	0.02	0.02	100	0.02	0.02	100	0.0	12	82.8-114	
Isopropylbenzene	0.02	0.021	105	0.02	0.02	100	4.9	11	86.8-113	
m- & p-Xylenes	0.04	0.042	105	0.04	0.04	100	4.9	10	76.9-122	
MEK	0.02	0.015	75	0.02	0.015	75	0.0	42	44.9-154	
Methylene chloride	0.02	0.016	80	0.02	0.016	80	0.0	13	67.3-130	
Naphthalene	0.02	0.019	95	0.02	0.018	90	5.4	27	55.8-136	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103065 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.03,04

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
n-Butylbenzene	0.02	0.019	95	0.02	0.019	95	0.0	20	74.1-120	
n-Propylbenzene	0.02	0.019	95	0.02	0.019	95	0.0	12	78.9-115	
o-Xylene	0.02	0.021	105	0.02	0.02	100	4.9	11	86-111	
sec-Butylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	12	80.2-115	
Styrene	0.02	0.02	100	0.02	0.02	100	0.0	12	86.7-111	
t-butylbenzene	0.02	0.02	100	0.02	0.019	95	5.1	14	80.7-116	
Tetrachloroethylene	0.02	0.021	105	0.02	0.021	105	0.0	27	64.2-140	
Toluene	0.02	0.02	100	0.02	0.02	100	0.0	12	85.9-110	
trans-1,2-Dichloroethylene	0.02	0.018	90	0.02	0.017	85	5.7	12	73.7-124	
trans-1,3-Dichloropropene	0.02	0.019	95	0.02	0.019	95	0.0	14	83-114	
Trichloroethylene	0.02	0.021	105	0.02	0.021	105	0.0	12	85.4-114	
Trichlorofluoromethane	0.02	0.02	100	0.02	0.019	95	5.1	12	74.3-126	
Vinyl Chloride	0.02	0.018	90	0.02	0.017	85	5.7	17	61.8-142	
Xylenes	0.06	0.063	105	0.06	0.06	100	4.9	9	81.2-117	

QC Type: MS and MSD
QC Sample ID: 17101539.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.02	0.023	115						72-139	
1,1,1-Trichloroethane	BRL	0.02	0.02	100						70.6-135	
1,1,2,2-Tetrachloroethane	BRL	0.02	0.025	125						55-149	
1,1,2-Trichloroethane	BRL	0.02	0.024	120						68-139	
1,1-Dichloroethane	BRL	0.02	0.019	95						78-134	
1,1-Dichloroethylene	BRL	0.02	0.023	115						65-141	
1,1-Dichloropropene	BRL	0.02	0.019	95						79-136	
1,2,3-trichlorobenzene	BRL	0.02	0.021	105						54-144	
1,2,3-Trichloropropane	BRL	0.02	0.024	120						58-156	
1,2,4-Trichlorobenzene	BRL	0.02	0.019	95						69-127	
1,2,4-Trimethylbenzene	BRL	0.02	0.019	95						80-131	
1,2-Dibromo-3-chloropropa	BRL	0.02	0.023	115						61-145	
1,2-Dibromoethane	BRL	0.02	0.024	120						68-140	
1,2-Dichlorobenzene	BRL	0.02	0.022	110						70-138	
1,2-Dichloroethane	BRL	0.02	0.026	130						67-152	
1,2-Dichloropropane	BRL	0.02	0.02	100						79-135	
1,3,5-Trimethylbenzene	BRL	0.02	0.02	100						79-133	
1,3-Dichlorobenzene	BRL	0.02	0.021	105						79-128	
1,3-Dichloropropane	BRL	0.02	0.023	115						70-147	
1,4-Dichlorobenzene	BRL	0.02	0.021	105						76-127	
1,4-Dioxane	BRL	0.64	0.804	126						70-125	M8

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103065 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.03,04

QC Type: MS and MSD
QC Sample ID: 17101539.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,2-Dichloropropane	BRL	0.02	0.018	90						60-129	
2-Chlorotoluene	BRL	0.02	0.019	95						83-130	
4-Chlorotoluene	BRL	0.02	0.019	95						82-129	
4-Isopropyltoluene	BRL	0.02	0.0095	47.5						78-129	M9
Benzene	BRL	0.02	0.021	105						73-129	
Bromobenzene	BRL	0.02	0.021	105						76-132	
Bromochloromethane	BRL	0.02	0.021	105						76-135	
Bromodichloromethane	BRL	0.02	0.023	115						80-136	
Bromoform	BRL	0.02	0.027	135						65-139	
Bromomethane	BRL	0.02	0.016	80						65-150	
Carbon disulfide	BRL	0.02	0.014	70						70-125	
Carbon tetrachloride	BRL	0.02	0.025	125						70-136	
Chlorobenzene	BRL	0.02	0.021	105						69-123	
Chloroethane	BRL	0.02	0.024	120						74-145	
Chloroform	BRL	0.02	0.021	105						41.8-164	
Chloromethane	BRL	0.02	0.026	130						42.2-160	
cis-1,2-Dichloroethylene	BRL	0.02	0.019	95						71-134	
cis-1,3-Dichloropropene	BRL	0.02	0.02	100						74-128	
Dibromochloromethane	BRL	0.02	0.025	125						67-141	
Dibromomethane	BRL	0.02	0.024	120						63.1-135	
Dichlorodifluoromethane	BRL	0.02	0.03	150						62-146	M8
Ethylbenzene	BRL	0.02	0.02	100						80-132	
Isopropylbenzene	BRL	0.02	0.021	105						78-137	
m- & p-Xylenes	BRL	0.04	0.042	105						74-127	
MEK	BRL	0.02	0.022	110						52-148	
Methylene chloride	BRL	0.02	0.014	70						68-131	
Naphthalene	BRL	0.02	0.021	105						61-116	
n-Butylbenzene	BRL	0.02	0.018	90						73-140	
n-Propylbenzene	BRL	0.02	0.018	90						75-127	
o-Xylene	BRL	0.02	0.021	105						74-126	
sec-Butylbenzene	BRL	0.02	0.019	95						75-129	
Styrene	BRL	0.02	0.02	100						77-123	
t-butylbenzene	BRL	0.02	0.02	100						75-126	
Tetrachloroethylene	BRL	0.02	0.022	110						27.6-194	
Toluene	BRL	0.02	0.02	100						72-121	
trans-1,2-Dichloroethylene	BRL	0.02	0.02	100						73-138	
trans-1,3-Dichloropropene	BRL	0.02	0.022	110						66-131	
Trichloroethylene	BRL	0.02	0.022	110						6-138	
Trichlorofluoromethane	BRL	0.02	0.022	110						67-148	
Vinyl Chloride	BRL	0.02	0.017	85						59.4-140	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103065 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101525.03,04

QC Type: MS and MSD
QC Sample ID: 17101539.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Xylenes	BRL	0.06	0.063	105						73-127	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : % Moisture **Method :** SM 2540G **Reporting Units :** %

QC Batch ID : Qb17103190 **Created Date :** 10/31/17 **Created By :** Alomeda

Samples in This QC Batch : 17101525.07

Sample Preparation : PB17103182 **Prep Method :** SM 2540G **Prep Date :** 10/31/17 16:30 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
% Moisture		< MDL	%	1	----			

QC Type: Duplicate

QC Sample ID: 17101525.07

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	9.78	10.6	%	8	20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101525 **Date :** 11/17/2017

Analysis : Metals by ICP/MS **Method :** SW-846 6020B **Reporting Units :** mg/Kg

QC Batch ID : Qb17110224 **Created Date :** 11/02/17 **Created By :** Ggorane

Samples in This QC Batch : 17101525.01,02,05,06,07

Digestion : PB17110207 **Prep Method :** SW-846 3050B **Prep Date :** 11/01/17 10:50 **Prep By :** JYou

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Lead	7439-92-1	< MDL	mg/Kg	1	0.125	0.01		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Lead	25	28.148	113	25	28.777	115	2.2	20	80-120	

QC Type: MS and MSD
QC Sample ID: 17101525.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Lead	5.014	25	31.534	106						75-125	

Refer to the Definition page for terms.

A & B Labs — *Chain of Custody* — The Chain of Custody is a Legal Document — Page 1 of 1

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 1710,1525

5. Project #

1. REPORT TO:
Company: Weston Solutions
Address: 5599 San Felipe Suite 700, Houston, TX 77056
Contact: Dawn Denham
Phone: 713-985-6000
Fax: ☐
E-mail: ☐ dawn.denham@westonsolutions.com

2. INVOICE TO:
Company: Same as "report to"
Address:
Contact:
Phone:
Fax: ☐
E-mail: ☐

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☒ Other: 5 day
☐ 2 Days*
☐ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location: DEA Block 333 Phase II

7. Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☒ EDD

8. Sampler's Name & Company (PLEASE PRINT): Raquel Omelia - Weston Solutions; Mike Kunarek - Weston Solutions
Sampler's Signature & Date: 10/24/17

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	Time 24hr	11. Comp.	11. Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	No. of Containers	Analyses/Methods: VOCs (method 5035)	Metals (method 6020)	TPH 1005	% Moisture	18. REMARKS
01A-F	MW-2-10-12.5	10/24/17	1200	X	X		X						8	X	X	X	X	VOCs/TPH grab, metals comp.
02A-H	MW-2-33-35		1215	X	X		X						8	X	X	X	X	
03A	Trip Blank-3		—		X	X							1	X				
04A-C	FB-1		1505		X	X							3	X				2 of 3 HCl pres. 1 unpres.
05A-H	MW-4-21-25		1600	X	X								8	X	X	X	X	VOCs/TPH grab, metals comp.
06A-H	MW-4-25-27		1615	X	X								8	X	X	X	X	

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1	10/24/17	16:54		10/24/17	16:54
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 5.6 - 0.5 = 5.1°C
Thermometer ID 146539631
Intact: Y or N Initials SU

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other
**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT
BILL OF LADING/TRACKING #

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

LAB USE ONLY SAMPLING ____ RENTAL ____ P/U ____ Supplies ____ Field Work ____

Sample Condition Checklist

A&B JobID : **17101525**	Date Received : **10/24/2017**	Time Received : **4:54PM**
Client Name : **Weston Solutions**		
Temperature : **5.6-0.5cf=5.1°C**	Sample pH : **n/a**	
Thermometer ID : **140539631**	pH Paper ID : **n/a**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**		X	
8.	**Matrix :** **Water** ☑ **Soil** ☑ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☐ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**	X		
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**		X	
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**	X		
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Water: 03&04. Received 6 pre-weighed vials and 2 bulk jars for each soil sample. Received an additonal set of soils with ID:I 'Dup 2 10/24/17 @ 00:00' not listed on COC; Labeled as 07A-H. 04A received broken. -ANH 10-26-17.

Received by : Sortega

Check in by/date : AHall / 10/26/2017

DCS Summary

A&B JobID 17101525
Weston Solutions
DRA Block 333 Phase II
Sample Collected 10/24/2017

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 6020B	Nickel	0.3	mg/Kg	1	0.25	mg/Kg	122	11/14/2017	Ggorane
DCS	SW-846 6020B	Strontium	3.01	mg/Kg	1	2.5	mg/Kg	120	11/14/2017	Ggorane
DCS	SW-846 6020B	Zinc	0.3	mg/Kg	1	0.25	mg/Kg	115	11/14/2017	Ggorane
DCS	SW-846 6020B	Aluminum	0.64	mg/Kg	1	0.25	mg/Kg	256	11/14/2017	Ggorane
DCS	SW-846 6020B	Antimony	0.3	mg/Kg	1	0.25	mg/Kg	116	11/14/2017	Ggorane
DCS	SW-846 6020B	Arsenic	0.3	mg/Kg	1	0.25	mg/Kg	116	11/14/2017	Ggorane
DCS	SW-846 6020B	Barium	0.32	mg/Kg	1	0.25	mg/Kg	128	11/14/2017	Ggorane
DCS	SW-846 6020B	Beryllium	0.28	mg/Kg	1	0.25	mg/Kg	112	11/14/2017	Ggorane
DCS	SW-846 6020B	Cadmium	0.3	mg/Kg	1	0.25	mg/Kg	116	11/14/2017	Ggorane
DCS	SW-846 6020B	Calcium	39.41	mg/Kg	1	25	mg/Kg	158	11/14/2017	Ggorane
DCS	SW-846 6020B	Chromium	0.4	mg/Kg	1	0.25	mg/Kg	150	11/14/2017	Ggorane
DCS	SW-846 6020B	Iron	32.85	mg/Kg	1	25	mg/Kg	131	11/14/2017	Ggorane
DCS	SW-846 6020B	Lead	0.3	mg/Kg	1	0.25	mg/Kg	124	11/14/2017	Ggorane
DCS	SW-846 6020B	Magnesium	30.81	mg/Kg	1	25	mg/Kg	123	11/14/2017	Ggorane
DCS	SW-846 6020B	Manganese	0.31	mg/Kg	1	0.25	mg/Kg	124	11/14/2017	Ggorane
DCS	SW-846 6020B	Potassium	34.66	mg/Kg	1	25	mg/Kg	139	11/14/2017	Ggorane
DCS	SW-846 6020B	Selenium	0.25	mg/Kg	1	0.25	mg/Kg	100	11/14/2017	Ggorane
DCS	SW-846 6020B	Silver	0.3	mg/Kg	1	0.25	mg/Kg	111	11/14/2017	Ggorane
DCS	SW-846 6020B	Sodium	14.7	mg/Kg	1	25	mg/Kg	58.8	11/14/2017	Ggorane
DCS	SW-846 6020B	Thallium	0.32	mg/Kg	1	0.25	mg/Kg	128	11/14/2017	Ggorane
DCS	SW-846 6020B	Tin	1.75	mg/Kg	1	0.25	mg/Kg	700	11/14/2017	Ggorane
DCS	SW-846 6020B	Titanium	0.28	mg/Kg	1	0.25	mg/Kg	112	11/14/2017	Ggorane
DCS	SW-846 6020B	Vanadium	0.36	mg/Kg	1	0.25	mg/Kg	144	11/14/2017	Ggorane
DCS	SW-846 6020B	Cobalt	0.29	mg/Kg	1	0.25	mg/Kg	116	11/14/2017	Ggorane
DCS	SW-846 6020B	Copper	0.3	mg/Kg	1	0.25	mg/Kg	140	11/14/2017	Ggorane
DCS	SW-846 6020B	Molybdenum	0.30	mg/Kg	1	0.25	mg/Kg	120	11/14/2017	Ggorane
DCS	SW-846 6020B	Uranium	0.28	mg/Kg	1	0.25	mg/Kg	112	11/14/2017	Ggorane

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 6020B	Thorium	0.27	mg/Kg	1	0.25	mg/Kg	108	11/14/2017	Ggorane

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	TX 1005	C6-C12	29.4	mg/Kg	1	25	mg/Kg	118	10/25/2017	LLe
DCS	TX 1005	>C12-C28	26.5	mg/Kg	1	25	mg/Kg	106	10/25/2017	LLe
DCS	TX 1005	>C28-C35	27.3	mg/Kg	1	25	mg/Kg	109	10/25/2017	LLe
DCS	TX 1005	Total C6-C35	83.2	mg/Kg	1	75	mg/Kg	111	10/26/2017	LLe

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	1,1,1,2-Tetrachloroethane	0.0053	mg/Kg	1	0.005	mg/Kg	106	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,1-Trichloroethane	0.0051	mg/Kg	1	0.005	mg/Kg	102	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,2,2-Tetrachloroethane	0.006	mg/Kg	1	0.005	mg/Kg	120	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,2-Trichloroethane	0.0055	mg/Kg	1	0.005	mg/Kg	110	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloroethane	0.005	mg/Kg	1	0.005	mg/Kg	100	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloroethylene	0.0049	mg/Kg	1	0.005	mg/Kg	98	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,4-Trichlorobenzene	0.0021	mg/Kg	1	0.005	mg/Kg	42	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,4-Trimethylbenzene	0.0027	mg/Kg	1	0.005	mg/Kg	54	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dibromo-3-chloropropane	0.0041	mg/Kg	1	0.005	mg/Kg	82	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dibromoethane	0.0054	mg/Kg	1	0.005	mg/Kg	108	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichlorobenzene	0.0045	mg/Kg	1	0.005	mg/Kg	90	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichloroethane	0.0058	mg/Kg	1	0.005	mg/Kg	116	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichloropropane	0.0045	mg/Kg	1	0.005	mg/Kg	90	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3,5-Trimethylbenzene	0.0028	mg/Kg	1	0.005	mg/Kg	56	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3-Dichlorobenzene	0.0044	mg/Kg	1	0.005	mg/Kg	88	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3-Dichloropropane	0.0049	mg/Kg	1	0.005	mg/Kg	98	10/24/2017	Jdongre
DCS	SW-846 8260C	1,4-Dichlorobenzene	0.0047	mg/Kg	1	0.005	mg/Kg	94	10/24/2017	Jdongre
DCS	SW-846 8260C	2,2-Dichloropropane	0.0047	mg/Kg	1	0.005	mg/Kg	94	10/24/2017	Jdongre
DCS	SW-846 8260C	Isopropylbenzene	0.0024	mg/Kg	1	0.005	mg/Kg	48	10/24/2017	Jdongre
DCS	SW-846 8260C	m- & p-Xylenes	0.0085	mg/Kg	1	0.005	mg/Kg	170	10/24/2017	Jdongre
DCS	SW-846 8260C	Toluene	0.0049	mg/Kg	1	0.005	mg/Kg	98	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromomethane	0.0068	mg/Kg	1	0.005	mg/Kg	136	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloromethane	0.0063	mg/Kg	1	0.005	mg/Kg	126	10/24/2017	Jdongre
DCS	SW-846 8260C	Naphthalene	0.0024	mg/Kg	1	0.005	mg/Kg	48	10/24/2017	Jdongre
DCS	SW-846 8260C	n-Butylbenzene	0.0019	mg/Kg	1	0.005	mg/Kg	38	10/24/2017	Jdongre

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	o-Xylene	0.0026	mg/Kg	1	0.005	mg/Kg	52	10/24/2017	Jdongre
DCS	SW-846 8260C	Styrene	0.0033	mg/Kg	1	0.005	mg/Kg	66	10/24/2017	Jdongre
DCS	SW-846 8260C	t-butylbenzene	0.0023	mg/Kg	1	0.005	mg/Kg	46	10/24/2017	Jdongre
DCS	SW-846 8260C	Trichloroethylene	0.0039	mg/Kg	1	0.005	mg/Kg	78	10/24/2017	Jdongre
DCS	SW-846 8260C	Trichlorofluoromethane	0.0051	mg/Kg	1	0.005	mg/Kg	102	10/24/2017	Jdongre
DCS	SW-846 8260C	Vinyl Chloride	0.004	mg/Kg	1	0.005	mg/Kg	80	10/24/2017	Jdongre
DCS	SW-846 8260C	cis-1,3-Dichloropropene	0.0042	mg/Kg	1	0.005	mg/Kg	84	10/24/2017	Jdongre
DCS	SW-846 8260C	trans-1,3-Dichloropropene	0.004	mg/Kg	1	0.005	mg/Kg	80	10/24/2017	Jdongre
DCS	SW-846 8260C	cis-1,2-Dichloroethylene	0.0044	mg/Kg	1	0.005	mg/Kg	88	10/24/2017	Jdongre
DCS	SW-846 8260C	trans-1,2-Dichloroethylene	0.0047	mg/Kg	1	0.005	mg/Kg	94	10/24/2017	Jdongre
DCS	SW-846 8260C	Ethylbenzene	0.004	mg/Kg	1	0.005	mg/Kg	80	10/24/2017	Jdongre
DCS	SW-846 8260C	Dichlorodifluoromethane	0.0075	mg/Kg	1	0.005	mg/Kg	150	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloroethane	0.0052	mg/Kg	1	0.005	mg/Kg	104	10/24/2017	Jdongre
DCS	SW-846 8260C	Methylene chloride	0.0032	mg/Kg	1	0.005	mg/Kg	64	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloroform	0.0052	mg/Kg	1	0.005	mg/Kg	104	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromochloromethane	0.0056	mg/Kg	1	0.005	mg/Kg	112	10/24/2017	Jdongre
DCS	SW-846 8260C	Benzene	0.0048	mg/Kg	1	0.005	mg/Kg	96	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloropropene	0.0044	mg/Kg	1	0.005	mg/Kg	88	10/24/2017	Jdongre
DCS	SW-846 8260C	Carbon tetrachloride	0.0051	mg/Kg	1	0.005	mg/Kg	102	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromodichloromethane	0.0055	mg/Kg	1	0.005	mg/Kg	110	10/24/2017	Jdongre
DCS	SW-846 8260C	Dibromomethane	0.0058	mg/Kg	1	0.005	mg/Kg	116	10/24/2017	Jdongre
DCS	SW-846 8260C	Chlorobenzene	0.0051	mg/Kg	1	0.005	mg/Kg	102	10/24/2017	Jdongre
DCS	SW-846 8260C	Tetrachloroethylene	0.0058	mg/Kg	1	0.005	mg/Kg	116	10/24/2017	Jdongre
DCS	SW-846 8260C	Dibromochloromethane	0.0053	mg/Kg	1	0.005	mg/Kg	106	10/24/2017	Jdongre

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	Bromoform	0.0059	mg/Kg	1	0.005	mg/Kg	118	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,3-Trichloropropane	0.0058	mg/Kg	1	0.005	mg/Kg	116	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromobenzene	0.005	mg/Kg	1	0.005	mg/Kg	100	10/24/2017	Jdongre
DCS	SW-846 8260C	2-Chlorotoluene	0.0045	mg/Kg	1	0.005	mg/Kg	90	10/24/2017	Jdongre
DCS	SW-846 8260C	4-Chlorotoluene	0.003	mg/Kg	1	0.005	mg/Kg	60	10/24/2017	Jdongre
DCS	SW-846 8260C	sec-Butylbenzene	0.0038	mg/Kg	1	0.005	mg/Kg	76	10/24/2017	Jdongre
DCS	SW-846 8260C	4-Isopropyltoluene	0.0023	mg/Kg	1	0.005	mg/Kg	46	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,3-trichlorobenzene	0.0037	mg/Kg	1	0.005	mg/Kg	74	10/24/2017	Jdongre
DCS	SW-846 8260C	Xylenes	0.0111	mg/Kg	1	0.005	mg/Kg	222	11/06/2017	Jdongre
DCS	SW-846 8260C	MEK	0.0045	mg/Kg	1	0.005	mg/Kg	90	10/24/2017	Jdongre
DCS	SW-846 8260C	n-Propylbenzene	0.0039	mg/Kg	1	0.005	mg/Kg	78	10/24/2017	Jdongre

Laboratory Data Package Cover Page

This data package is for Job No. 17101525 and laboratory batch no(s). Qb17102777,Qb17102795,Qb17103038,Qb17103065,Qb17103190,Qb17110224 and consists of:

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:

c. LCS spiking amounts,

d. Calculated %R for each analyte, and

e. The laboratory's LCS QC limits.

☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

f. Samples associated with the MS/MSD clearly identified,

g. MS/MSD spiking amounts,

h. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

i. Calculated %Rs and relative percent differences (RPDs), and

j. The laboratory's MS/MSD QC limits

☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

k. The amount of analyte measured in the duplicate,

l. The calculated RPD, and

m. The laboratory's QC limits for analytical duplicates.

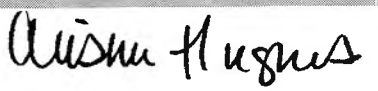
☒ R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

☒ 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.

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 Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/ anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspection by [ ] TCEQ or [ ] _____ on _____. 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 forreleasing this data package and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Alisha Hughes		Project Manager	11/17/2017

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101525
Prep Batch Number(s): Qb17102777,Qb17102795,Qb17103038,Qb17103057,Qb17103065,Qb17103134,Qb17103190,Qb17110178,Qb17110224

Reviewed By: AHughes
Date Reviewed: 11/17/2017

#	A	Description	Yes	No	NA	NR	ER#
R1	**OI**	**Chain-of Custody**					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		2) Were all departures from standard conditions described in an exception report?	X				
R2	**OI**	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?		X			R2/1
		2) Are all laboratory ID numbers cross referenced to corresponding QC data?	X				
R3	**OI**	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results <MQL, were all other reported results within calibration range?		X			R3/2
		3) Were calculations subject to appropriate checks?	X				
		4) Were all analyte identifications subject to appropriate checks?	X				
		5) Were all sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Was % moisture (or solids) reported for all samples?	X				
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035	X				
		9) If required for the project, were tentatively dentified compounds (TICs) reported?			X		
R4	**OI**	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries (%R) within the laboratory QC limits?		X			R4/2
R5	**OI**	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blanks free of detected target compounds and, if applicable, reported TICs?	X				
R6	**OI**	**Laboratory Control Samples (LCS)**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps ?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6/4
		5) Were LCSs spiked at or below the LORP or do the detectability data document the laboratory's capability of detecting the COCs in samples spiked at the MDL?	X				
		6) Was the LCSD RPD within QC limits?		X			R6/6
R7	**OI**	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %R within the laboratory QC limits?		X			R7/3
		4) Were MS/MSD RPDs within laboratory QC limits?		X			R7/4
R8	**OI**	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?		X			R8/3
R9	**OI**	**Method Quatitation Limits MQLs)**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero standard?	X				

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101525
Prep Batch Number(s): Qb17102777,Qb17102795,Qb17103038,Qb17103057,Qb17103065,Qb17103134,Qb17103190,Qb17110178,Qb17110224

Reviewed By: AHughes
Date Reviewed: 11/17/2017

#	A	Description	Yes	No	NA	NR	ER#
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				
S1	OI	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for instruments used?	X				
		6) 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):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) 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 5.5.10)**					
		1) Were the raw data (e.g., chromatograms, and spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	OI	**DUAL COLUMN CONFIRMATION**					
		Did dual column confirmation results meet the method-required QC?	X				
S7	OI	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	OI	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?	X				
S9	OI	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS**					
		Were percent differences, recoveries, and the linearity within the QC limits	X				
S10	OI	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all methods documented and verified and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S11	OI	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	OI	**STANDARDS DOCUMENTATION**					
		Are the standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101525
Prep Batch Number(s): Qb17102777,Qb17102795,Qb17103038,Qb17103057,Qb17103065,Qb17103134,Qb17103190,Qb17110178,Qb17110224

Reviewed By: AHughes
Date Reviewed: 11/17/2017

#	A	Description	Yes	No	NA	NR	ER#
S13	OI	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	**DEMONSTRATION OF CAPABILITY (DOC)**					
		1) Was DOC conducted generally consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S16	OI	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

ER#	EXCEPTION			
R2/1	An extra sample labeled DUP 2 was received and assigned to sample 07.			
	---	---	---	---
R3/2	J - Estimation. Below calibration range but above MDL.			
	(J)MW-4-25-27	17101525.06	Qb17103038	VOC
	(J)DUP 2	17101525.07	Qb17110178	Mercury
R4/2	S1 - Surrogate recovery is above control limit. Results may be biased high.			
	(S1)MW-2-10-12.5	17101525.01	Qb17102795	TPH_1005
	(S1)MW-2-33-35	17101525.02	Qb17102795	TPH_1005
	(S1)MW-4-21-25	17101525.05	Qb17102795	TPH_1005
	(S1)MW-4-21-25	17101525.05	Qb17103038	VOC
	(S1)MW-4-25-27	17101525.06	Qb17102795	TPH_1005
	(S1)MW-4-25-27	17101525.06	Qb17103038	VOC
	(S1)DUP 2	17101525.07	Qb17102795	TPH_1005
	(S1)DUP 2	17101525.07	Qb17103038	VOC
R6/4	L2 - Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.			
	---	---	Qb17103038	VOC
R6/6	R1 - RPD exceeds control limits., R4 - LCS/LCSD RPD exceeds control limit. Recovery meets acceptance criteria.			
	(R1)B1-15'	17101459.01	Qb17102795	TPH_1005
	---	---	Qb17103065	VOC
R7/3	M2 - Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference., M8 - Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits., M9 - Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits.			
	(M2)MW-2-10-12.5	17101525.01	Qb17103134	Metals
	(M8)MW-2-33-35	17101525.02	Qb17103038	VOC
	(M8)MW-2	17101539.02	Qb17103065	VOC
	(M9)MW-2	17101539.02	Qb17103065	VOC

Laboratory Review Checklist: Reportable Data

Project Name: DRA Block 333 Phase II
A&B Job ID: 17101525
Prep Batch Number(s): Qb17102777,Qb17102795,Qb17103038,Qb17103057,Qb17103065,Qb17103134,Qb17103190,Qb17110178,Qb17110224

Reviewed By: AHughes
Date Reviewed: 11/17/2017

ER#	EXCEPTION			
R7/4	R1 - RPD exceeds control limits.			
	(R1)B1-15'	17101459.01	Qb17102795	TPH_1005
R8/3	R1 - RPD exceeds control limits.			
	(R1)B1-15'	17101459.01	Qb17102795	TPH_1005

O = organic analyses;

I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

NR = Not Reviewed;

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

Laboratory Analysis Report

Total Number of Pages: 42

Job ID : 17101674

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
DRA Block 333 Phase II

Report To :	Client Name:	Weston Solutions	P.O.#.:
	Attn:	Dawn Denham	Sample Collected By: Rachel Omerza
	Client Address:	5599 San Felipe Suite 700	Date Collected: 10/27/17
	City, State, Zip:	Houston, Texas, 77056	

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
Trip Blank-5	Water	17101674.01
MW-1	Water	17101674.02
MW-2	Water	17101674.03
MW-3	Water	17101674.04
MW-4	Water	17101674.05
Dup-3	Water	17101674.06
EB-1	Water	17101674.07

Alisha Hughes

Released By: Alisha Hughes
Title: Project Manager
Date: 11/3/2017

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

Date Received : 10/27/2017 15:44

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17101674

Date: 11/3/2017

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

J	Estimation. Below calibration range but above MDL.
L1	Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high.
L2	Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.
M8	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.
R4	LCS/LCSD RPD exceeds control limit. Recovery meets acceptance criteria.
U	Undetected at SDL (Sample Detection Limit).
V1	CCV recovery is above acceptance limits. This target analyte was not detected in the sample.

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank-5
A&B Job Sample ID: 17101674.01
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 12:45
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 12:45
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 12:45
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45

Soil results reported on dry weight basis

JKD 11-10-17

LABORATORY TEST RESULTS

Client Sample ID: Trip Blank-5
A&B Job Sample ID: 17101674.01
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 12:45
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/30/17 12:45
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 12:45
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 12:45
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/30/17 12:45
17060-07-0	1,2-Dichloroethane-d4	102					70	130	%	1	10/30/17 12:45
1868-53-7	Dibromofluoromethan	104					70	130	%	1	10/30/17 12:45
2037-26-5	Toluene-d8(surr)	103					70	130	%	1	10/30/17 12:45
460-00-4	p-Bromofluorobenzen	107					70	130	%	1	10/30/17 12:45

JKD 11-16-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1
A&B Job Sample ID: 17101674.02

Date: 11/3/2017

Client Name: Weston Solutions
Project Name: DRA Block 333 Phase II

Attn: Dawn Denham

Test Description:	**Metals by ICP/MS**	Sample Matrix	Water
Analytical Method:	SW-846 6020B	Date Collected	10/27/2017 09:01
QC Batch ID:	Qb17110204	Date Received	10/27/2017 15:44
Prep Method:	SW-846 3010A	Date Prepared	11/01/2017 13:45
Prepared By:	JYou		
Prep Batch ID	PB17110202		
Analyst Initial	GG	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	0.0004		0.0002	0.00025	0.0002	0.00025	0.1	mg/L	1	11/01/17 19:03

nkj
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-1
A&B Job Sample ID: 17101674.02
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 09:01
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 13:19
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 13:19
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 13:19
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19

Soil results reported on dry weight basis

MKT 11-10-17

LABORATORY TEST RESULTS

Client Sample ID: MW-1
A&B Job Sample ID: 17101674.02
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 09:01
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 13:19
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/30/17 13:19
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 13:19
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:19
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/30/17 13:19
17060-07-0	1,2-Dichloroethane-d4	107					70	130	%	1	10/30/17 13:19
1868-53-7	Dibromofluoromethan	106					70	130	%	1	10/30/17 13:19
2037-26-5	Toluene-d8(surr)	102					70	130	%	1	10/30/17 13:19
460-00-4	p-Bromofluorobenzen	105					70	130	%	1	10/30/17 13:19

MCT 11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2
A&B Job Sample ID: 17101674.03
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Metals by ICP/MS**	Sample Matrix	Water
Analytical Method:	SW-846 6020B	Date Collected	10/27/2017 10:12
QC Batch ID:	Qb17110204	Date Received	10/27/2017 15:44
Prep Method:	SW-846 3010A	Date Prepared	11/01/2017 13:45
Prepared By:	JYou		
Prep Batch ID	PB17110202		
Analyst Initial	GG	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	< 0.0002	U	0.0002	0.00025	0.0002	0.00025	0.1	mg/L	1	11/01/17 19:06

NET
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-2
A&B Job Sample ID: 17101674.03
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 10:12
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 13:53
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 13:53
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 13:53
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53

Soil results reported on dry weight basis

11-10-17

LABORATORY TEST RESULTS

Client Sample ID: MW-2
A&B Job Sample ID: 17101674.03
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description: **Volatile Organic Compounds**
Analytical Method: SW-846 8260C
QC Batch ID: Qb17103142
Prep Method: SW-846 5030C
Prepared By: Jdongre
Prep Batch ID PB17103144
Analyst Initial JKD

Sample Matrix Water
Date Collected 10/27/2017 10:12
Date Received 10/27/2017 15:44
Date Prepared 10/30/2017 09:00
% Moisture

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 13:53
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/30/17 13:53
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 13:53
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 13:53
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/30/17 13:53
17060-07-0	1,2-Dichloroethane-d4	108					70	130	%	1	10/30/17 13:53
1868-53-7	Dibromofluoromethan	103					70	130	%	1	10/30/17 13:53
2037-26-5	Toluene-d8(surr)	101					70	130	%	1	10/30/17 13:53
460-00-4	p-Bromofluorobenzen	108					70	130	%	1	10/30/17 13:53

MK1
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3
A&B Job Sample ID: 17101674.04

Date: 11/3/2017

Client Name:	Weston Solutions
Project Name:	DRA Block 333 Phase II

Attn: Dawn Denham

Test Description:	**Metals by ICP/MS**	Sample Matrix	Water
Analytical Method:	SW-846 6020B	Date Collected	10/27/2017 11:59
QC Batch ID:	Qb17110204	Date Received	10/27/2017 15:44
Prep Method:	SW-846 3010A	Date Prepared	11/01/2017 13:45
Prepared By:	JYou		
Prep Batch ID	PB17110202		
Analyst Initial	GG	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	< 0.0002	U	0.0002	0.00025	0.0002	0.00025	0.1	mg/L	1	11/01/17 19:08

NK7
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-3
A&B Job Sample ID: 17101674.04
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 11:59
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 14:28
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 14:28
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 14:28
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28

Soil results reported on dry weight basis

MK 11-10-17

LABORATORY TEST RESULTS

Client Sample ID: MW-3
A&B Job Sample ID: 17101674.04
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 11:59
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 14:28
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/30/17 14:28
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 14:28
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 14:28
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/30/17 14:28
17060-07-0	1,2-Dichloroethane-d4	107					70	130	%	1	10/30/17 14:28
1868-53-7	Dibromofluoromethan	105					70	130	%	1	10/30/17 14:28
2037-26-5	Toluene-d8(surr)	99.7					70	130	%	1	10/30/17 14:28
460-00-4	p-Bromofluorobenzen	104					70	130	%	1	10/30/17 14:28

JKJ
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4
A&B Job Sample ID: 17101674.05
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Metals by ICP/MS**	Sample Matrix	Water
Analytical Method:	SW-846 6020B	Date Collected	10/27/2017 13:04
QC Batch ID:	Qb17110204	Date Received	10/27/2017 15:44
Prep Method:	SW-846 3010A	Date Prepared	11/01/2017 13:45
Prepared By:	JYou		
Prep Batch ID	PB17110202		
Analyst Initial	GG	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	0.001		0.0002	0.00025	0.0002	0.00025	0.1	mg/L	1	11/01/17 19:11

NKT
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: MW-4
A&B Job Sample ID: 17101674.05
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 13:04
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
95-63-6	1,2,4-Trimethylbenze	0.203		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 17:31
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
108-67-8	1,3,5-Trimethylbenze	0.056		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 17:31
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 15:02
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 15:02
71-43-2	Benzene	0.449		0.01	0.05	0.001	0.005	0.05	mg/L	10	10/31/17 18:40
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 15:02
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02

Soil results reported on dry weight basis

MLC 11-10-17

LABORATORY TEST RESULTS

Client Sample ID: MW-4
A&B Job Sample ID: 17101674.05
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 13:04
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 15:02
100-41-4	Ethylbenzene	0.137		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 17:31
98-82-8	Isopropylbenzene	0.017		0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
108-38-3&106-4	m- & p-Xylenes	0.427		0.01	0.05	0.002	0.01	0.1	mg/L	5	10/31/17 17:31
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
91-20-3	Naphthalene	0.039		0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 15:02
104-51-8	n-Butylbenzene	0.006		0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
103-65-1	n-Propylbenzene	0.036		0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
95-47-6	o-Xylene	0.119		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 17:31
135-98-8	sec-Butylbenzene	0.004	J	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
108-88-3	Toluene	0.185		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 17:31
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:02
1330-20-7	Xylenes	0.546		0.01	0.075	0.002	0.015	0.15	mg/L	5	10/31/17 17:31
17060-07-0	1,2-Dichloroethane-d4	112					70	130	%	1	10/30/17 15:02
1868-53-7	Dibromofluoromethan	96.6					70	130	%	1	10/30/17 15:02
2037-26-5	Toluene-d8(surr)	96.6					70	130	%	1	10/30/17 15:02
460-00-4	p-Bromofluorobenzen	104					70	130	%	1	10/30/17 15:02

MK7
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Dup-3
A&B Job Sample ID: 17101674.06

Date: 11/3/2017

Client Name:	Weston Solutions
Project Name:	DRA Block 333 Phase II

Attn: Dawn Denham

Test Description:	**Metals by ICP/MS**	Sample Matrix	Water
Analytical Method:	SW-846 6020B	Date Collected	10/27/2017 12:34
QC Batch ID:	Qb17110204	Date Received	10/27/2017 15:44
Prep Method:	SW-846 3010A	Date Prepared	11/01/2017 13:45
Prepared By:	JYou		
Prep Batch ID	PB17110202		
Analyst Initial	GG	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	0.0009		0.0002	0.00025	0.0002	0.00025	0.1	mg/L	1	11/01/17 19:14

MKT
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: Dup-3
A&B Job Sample ID: 17101674.06
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 12:34
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
95-63-6	1,2,4-Trimethylbenze	0.199		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 18:05
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
108-67-8	1,3,5-Trimethylbenze	0.056		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 18:05
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 15:37
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 15:37
71-43-2	Benzene	0.428		0.01	0.05	0.001	0.005	0.05	mg/L	10	10/31/17 19:15
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 15:37
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37

Soil results reported on dry weight basis

NKT 11-10-17

LABORATORY TEST RESULTS

Client Sample ID: Dup-3
A&B Job Sample ID: 17101674.06
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 12:34
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 15:37
100-41-4	Ethylbenzene	0.134		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 18:05
98-82-8	Isopropylbenzene	0.018		0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
108-38-3&106-4	m- & p-Xylenes	0.418		0.01	0.05	0.002	0.01	0.1	mg/L	5	10/31/17 18:05
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
91-20-3	Naphthalene	0.039		0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 15:37
104-51-8	n-Butylbenzene	0.006		0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
103-65-1	n-Propylbenzene	0.037		0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
95-47-6	o-Xylene	0.118		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 18:05
135-98-8	sec-Butylbenzene	0.004	J	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
108-88-3	Toluene	0.182		0.005	0.025	0.001	0.005	0.05	mg/L	5	10/31/17 18:05
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 15:37
1330-20-7	Xylenes	0.536		0.01	0.075	0.002	0.015	0.15	mg/L	5	10/31/17 18:05
17060-07-0	1,2-Dichloroethane-d4	115					70	130	%	1	10/30/17 15:37
1868-53-7	Dibromofluoromethan	100					70	130	%	1	10/30/17 15:37
2037-26-5	Toluene-d8(surr)	97.3					70	130	%	1	10/30/17 15:37
460-00-4	p-Bromofluorobenzen	105					70	130	%	1	10/30/17 15:37

MK
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: EB-1
A&B Job Sample ID: 17101674.07
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Metals by ICP/MS**	Sample Matrix	Water
Analytical Method:	SW-846 6020B	Date Collected	10/27/2017 14:00
QC Batch ID:	Qb17110204	Date Received	10/27/2017 15:44
Prep Method:	SW-846 3010A	Date Prepared	11/01/2017 13:45
Prepared By:	JYou		
Prep Batch ID	PB17110202		
Analyst Initial	GG	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
7439-92-1	Lead	< 0.0002	U	0.0002	0.00025	0.0002	0.00025	0.1	mg/L	1	11/01/17 19:35

NC7
11-10-17

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Client Sample ID: EB-1
A&B Job Sample ID: 17101674.07
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 14:00
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
630-20-6	1,1,1,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
71-55-6	1,1,1-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
79-34-5	1,1,2,2-Tetrachloroet	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
79-00-5	1,1,2-Trichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-34-3	1,1-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-35-4	1,1-Dichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
563-58-6	1,1-Dichloropropene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
87-61-6	1,2,3-trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
96-18-4	1,2,3-Trichloropropan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
120-82-1	1,2,4-Trichlorobenzen	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
95-63-6	1,2,4-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
96-12-8	1,2-Dibromo-3-chloro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
106-93-4	1,2-Dibromoethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
95-50-1	1,2-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
107-06-2	1,2-Dichloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
78-87-5	1,2-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
108-67-8	1,3,5-Trimethylbenze	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
541-73-1	1,3-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
142-28-9	1,3-Dichloropropane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
106-46-7	1,4-Dichlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
123-91-1	1,4-Dioxane	< 0.084	U	0.084	0.320	0.084	0.32	1.6	mg/L	1	10/30/17 16:10
594-20-7	2,2-Dichloropropane	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
95-49-8	2-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
106-43-4	4-Chlorotoluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
99-87-6	4-Isopropyltoluene	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 16:10
71-43-2	Benzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
108-86-1	Bromobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
74-97-5	Bromochloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-27-4	Bromodichloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-25-2	Bromoform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
74-83-9	Bromomethane	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 16:10
75-15-0	Carbon disulfide	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
56-23-5	Carbon tetrachloride	< 0.001	U,V1	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
108-90-7	Chlorobenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-00-3	Chloroethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
67-66-3	Chloroform	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10

Soil results reported on dry weight basis

JKD 11-10-17

LABORATORY TEST RESULTS

Client Sample ID: EB-1
A&B Job Sample ID: 17101674.07
Date: 11/3/2017

Client Name: Weston Solutions
Attn: Dawn Denham
Project Name: DRA Block 333 Phase II

Test Description:	**Volatile Organic Compounds**	Sample Matrix	Water
Analytical Method:	SW-846 8260C	Date Collected	10/27/2017 14:00
QC Batch ID:	Qb17103142	Date Received	10/27/2017 15:44
Prep Method:	SW-846 5030C	Date Prepared	10/30/2017 09:00
Prepared By:	Jdongre		
Prep Batch ID	PB17103144		
Analyst Initial	JKD	% Moisture	

CAS Number	Parameter	Result	Flag	SDL	SQL	MDL	MQL	UQL	Units	DF	Date/Time
74-87-3	Chloromethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
156-59-2	cis-1,2-Dichloroethyle	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
10061-01-5	cis-1,3-Dichloroprope	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
124-48-1	Dibromochloromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
74-95-3	Dibromomethane	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-71-8	Dichlorodifluorometha	< 0.003	U	0.003	0.005	0.003	0.005	0.05	mg/L	1	10/30/17 16:10
100-41-4	Ethylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
98-82-8	Isopropylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
108-38-3&106-4	m- & p-Xylenes	< 0.002	U	0.002	0.01	0.002	0.01	0.1	mg/L	1	10/30/17 16:10
78-93-3	MEK	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-09-2	Methylene chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
91-20-3	Naphthalene	< 0.002	U	0.002	0.005	0.002	0.005	0.05	mg/L	1	10/30/17 16:10
104-51-8	n-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
103-65-1	n-Propylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
95-47-6	o-Xylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
135-98-8	sec-Butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
100-42-5	Styrene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
98-06-6	t-butylbenzene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
127-18-4	Tetrachloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
108-88-3	Toluene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
156-60-5	trans-1,2-Dichloroethy	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
10061-02-6	trans-1,3-Dichloropro	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
79-01-6	Trichloroethylene	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-69-4	Trichlorofluoromethan	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
75-01-4	Vinyl Chloride	< 0.001	U	0.001	0.005	0.001	0.005	0.05	mg/L	1	10/30/17 16:10
1330-20-7	Xylenes	< 0.002	U	0.002	0.015	0.002	0.015	0.15	mg/L	1	10/30/17 16:10
17060-07-0	1,2-Dichloroethane-d4	103					70	130	%	1	10/30/17 16:10
1868-53-7	Dibromofluoromethan	106					70	130	%	1	10/30/17 16:10
2037-26-5	Toluene-d8(surr)	102					70	130	%	1	10/30/17 16:10
460-00-4	p-Bromofluorobenzen	103					70	130	%	1	10/30/17 16:10

JKD
11-10-17

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103142 **Created Date :** 10/30/17 **Created By :** Jdongre

Samples in This QC Batch : 17101674.01,02,03,04,05,06,07

Sample Preparation : PB17103144 **Prep Method :** SW-846 5030C **Prep Date :** 10/30/17 09:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1,1,2-Tetrachloroethane	630-20-6	< MDL	mg/L	1	0.005	0.001	
1,1,1-Trichloroethane	71-55-6	< MDL	mg/L	1	0.005	0.001	
1,1,2,2-Tetrachloroethane	79-34-5	< MDL	mg/L	1	0.005	0.001	
1,1,2-Trichloroethane	79-00-5	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethane	75-34-3	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1	0.005	0.001	
1,1-Dichloropropene	563-58-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-trichlorobenzene	87-61-6	< MDL	mg/L	1	0.005	0.001	
1,2,3-Trichloropropane	96-18-4	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trichlorobenzene	120-82-1	< MDL	mg/L	1	0.005	0.001	
1,2,4-Trimethylbenzene	95-63-6	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromo-3-chloropropa	96-12-8	< MDL	mg/L	1	0.005	0.001	
1,2-Dibromoethane	106-93-4	< MDL	mg/L	1	0.005	0.001	
1,2-Dichlorobenzene	95-50-1	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1	0.005	0.001	
1,2-Dichloropropane	78-87-5	< MDL	mg/L	1	0.005	0.001	
1,3,5-Trimethylbenzene	108-67-8	< MDL	mg/L	1	0.005	0.001	
1,3-Dichlorobenzene	541-73-1	< MDL	mg/L	1	0.005	0.001	
1,3-Dichloropropane	142-28-9	< MDL	mg/L	1	0.005	0.001	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1	0.005	0.001	
1,4-Dioxane	123-91-1	< MDL	mg/L	1	0.32	0.084	
2,2-Dichloropropane	594-20-7	< MDL	mg/L	1	0.005	0.001	
2-Chlorotoluene	95-49-8	< MDL	mg/L	1	0.005	0.001	
4-Chlorotoluene	106-43-4	< MDL	mg/L	1	0.005	0.001	
4-Isopropyltoluene	99-87-6	< MDL	mg/L	1	0.005	0.003	
Benzene	71-43-2	< MDL	mg/L	1	0.005	0.001	
Bromobenzene	108-86-1	< MDL	mg/L	1	0.005	0.001	
Bromochloromethane	74-97-5	< MDL	mg/L	1	0.005	0.001	
Bromodichloromethane	75-27-4	< MDL	mg/L	1	0.005	0.001	
Bromoform	75-25-2	< MDL	mg/L	1	0.005	0.001	
Bromomethane	74-83-9	< MDL	mg/L	1	0.005	0.002	
Carbon disulfide	75-15-0	< MDL	mg/L	1	0.005	0.001	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1	0.005	0.001	
Chlorobenzene	108-90-7	< MDL	mg/L	1	0.005	0.001	
Chloroethane	75-00-3	< MDL	mg/L	1	0.005	0.001	
Chloroform	67-66-3	< MDL	mg/L	1	0.005	0.001	
Chloromethane	74-87-3	< MDL	mg/L	1	0.005	0.001	
cis-1,2-Dichloroethylene	156-59-2	< MDL	mg/L	1	0.005	0.001	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/L**

QC Batch ID : Qb17103142 **Created Date :** 10/30/17 **Created By :** Jdongre

Samples in This QC Batch : 17101674.01,02,03,04,05,06,07

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
cis-1,3-Dichloropropene	10061-01-5	< MDL	mg/L	1	0.005	0.001		
Dibromochloromethane	124-48-1	< MDL	mg/L	1	0.005	0.001		
Dibromomethane	74-95-3	< MDL	mg/L	1	0.005	0.001		
Dichlorodifluoromethane	75-71-8	< MDL	mg/L	1	0.005	0.003		
Ethylbenzene	100-41-4	< MDL	mg/L	1	0.005	0.001		
Isopropylbenzene	98-82-8	< MDL	mg/L	1	0.005	0.001		
m- & p-Xylenes	108-38-3&106-42-3	< MDL	mg/L	1	0.01	0.002		
MEK	78-93-3	< MDL	mg/L	1	0.005	0.001		
Methylene chloride	75-09-2	< MDL	mg/L	1	0.005	0.001		
Naphthalene	91-20-3	< MDL	mg/L	1	0.005	0.002		
n-Butylbenzene	104-51-8	< MDL	mg/L	1	0.005	0.001		
n-Propylbenzene	103-65-1	< MDL	mg/L	1	0.005	0.001		
o-Xylene	95-47-6	< MDL	mg/L	1	0.005	0.001		
sec-Butylbenzene	135-98-8	< MDL	mg/L	1	0.005	0.001		
Styrene	100-42-5	< MDL	mg/L	1	0.005	0.001		
t-butylbenzene	98-06-6	< MDL	mg/L	1	0.005	0.001		
Tetrachloroethylene	127-18-4	< MDL	mg/L	1	0.005	0.001		
Toluene	108-88-3	< MDL	mg/L	1	0.005	0.001		
trans-1,2-Dichloroethylene	156-60-5	< MDL	mg/L	1	0.005	0.001		
trans-1,3-Dichloropropene	10061-02-6	< MDL	mg/L	1	0.005	0.001		
Trichloroethylene	79-01-6	< MDL	mg/L	1	0.005	0.001		
Trichlorofluoromethane	75-69-4	< MDL	mg/L	1	0.005	0.001		
Vinyl Chloride	75-01-4	< MDL	mg/L	1	0.005	0.001		
Xylenes	1330-20-7	< MDL	mg/L	1	0.015	0.002		
Dibromofluoromethane(surr	1868-53-7	105	%	1				
1,2-Dichloroethane-d4(surr	17060-07-0	95.8	%	1				
Toluene-d8(surr)	2037-26-5	100	%	1				
p-Bromofluorobenzene(surr	460-00-4	104	%	1				

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.023	115	0.02	0.02	100	14	12	82.6-121	R4
1,1,1-Trichloroethane	0.02	0.023	115	0.02	0.018	90	24.4	13	82.8-123	R4
1,1,2,2-Tetrachloroethane	0.02	0.019	95	0.02	0.019	95	0.0	20	77.5-122	
1,1,2-Trichloroethane	0.02	0.021	105	0.02	0.019	95	10	14	81.1-119	
1,1-Dichloroethane	0.02	0.021	105	0.02	0.017	85	21.1	12	74.5-125	R4
1,1-Dichloroethylene	0.02	0.023	115	0.02	0.018	90	24.4	12	75.4-124	R4
1,1-Dichloropropene	0.02	0.022	110	0.02	0.017	85	25.6	12	76.9-125	R4

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103142 **Created Date :** 10/30/17 **Created By :** Jdongre

Samples in This QC Batch : 17101674.01,02,03,04,05,06,07

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,3-trichlorobenzene	0.02	0.022	110	0.02	0.019	95	14.6	20	70.8-125	
1,2,3-Trichloropropane	0.02	0.019	95	0.02	0.019	95	0.0	22	69.6-126	
1,2,4-Trichlorobenzene	0.02	0.022	110	0.02	0.019	95	14.6	16	74.8-121	
1,2,4-Trimethylbenzene	0.02	0.023	115	0.02	0.019	95	19	12	80.4-114	L1,R4
1,2-Dibromo-3-chloropropa	0.02	0.021	105	0.02	0.02	100	4.9	27	61.7-140	
1,2-Dibromoethane	0.02	0.021	105	0.02	0.019	95	10	15	80.6-118	
1,2-Dichlorobenzene	0.02	0.021	105	0.02	0.019	95	10	11	82.6-113	
1,2-Dichloroethane	0.02	0.019	95	0.02	0.019	95	0.0	14	72.8-126	
1,2-Dichloropropane	0.02	0.02	100	0.02	0.018	90	10.5	13	82.4-120	
1,3,5-Trimethylbenzene	0.02	0.023	115	0.02	0.018	90	24.4	10	81.3-114	L1,R4
1,3-Dichlorobenzene	0.02	0.022	110	0.02	0.019	95	14.6	11	83.4-113	R4
1,3-Dichloropropane	0.02	0.019	95	0.02	0.017	85	11.1	16	79.8-115	
1,4-Dichlorobenzene	0.02	0.022	110	0.02	0.019	95	14.6	11	82.6-113	R4
1,4-Dioxane	0.64	0.522	81.6	0.64	0.579	90.5	10.4	30	70-130	
2,2-Dichloropropane	0.02	0.023	115	0.02	0.019	95	19	15	69.4-131	R4
2-Chlorotoluene	0.02	0.023	115	0.02	0.019	95	19	17	77.8-118	R4
4-Chlorotoluene	0.02	0.023	115	0.02	0.019	95	19	15	78.8-117	R4
4-Isopropyltoluene	0.02	0.023	115	0.02	0.018	90	24.4	11	80.9-114	L1,R4
Benzene	0.02	0.021	105	0.02	0.018	90	15.4	11	84.1-118	R4
Bromobenzene	0.02	0.022	110	0.02	0.019	95	14.6	12	82.8-116	R4
Bromochloromethane	0.02	0.02	100	0.02	0.018	90	10.5	15	70.7-131	
Bromodichloromethane	0.02	0.022	110	0.02	0.021	105	4.7	12	83.1-119	
Bromoform	0.02	0.022	110	0.02	0.021	105	4.7	20	70.3-136	
Bromomethane	0.02	0.017	85	0.02	0.014	70	19.4	23	59-134	
Carbon disulfide	0.02	0.016	80	0.02	0.012	60	28.6	30	70-130	L2
Carbon tetrachloride	0.02	0.025	125	0.02	0.02	100	22.2	13	74.6-129	R4
Chlorobenzene	0.02	0.022	110	0.02	0.018	90	20	11	87.8-110	R4
Chloroethane	0.02	0.016	80	0.02	0.013	65	20.7	13	73.7-124	R4
Chloroform	0.02	0.022	110	0.02	0.019	95	14.6	10	76.4-124	R4
Chloromethane	0.02	0.022	110	0.02	0.018	90	20	15	59.4-138	R4
cis-1,2-Dichloroethylene	0.02	0.022	110	0.02	0.018	90	20	15	74.3-124	R4
cis-1,3-Dichloropropene	0.02	0.02	100	0.02	0.018	90	10.5	11	84.6-117	
Dibromochloromethane	0.02	0.024	120	0.02	0.021	105	13.3	13	80.3-122	R4
Dibromomethane	0.02	0.02	100	0.02	0.02	100	0.0	16	75.8-126	
Dichlorodifluoromethane	0.02	0.029	145	0.02	0.023	115	23.1	15	44.4-149	R4
Ethylbenzene	0.02	0.023	115	0.02	0.018	90	24.4	12	82.8-114	L1,R4
Isopropylbenzene	0.02	0.023	115	0.02	0.018	90	24.4	11	86.8-113	L1,R4
m- & p-Xylenes	0.04	0.045	113	0.04	0.037	92.5	19.5	10	76.9-122	R4
MEK	0.02	0.019	95	0.02	0.016	80	17.1	42	44.9-154	
Methylene chloride	0.02	0.017	85	0.02	0.014	70	19.4	13	67.3-130	R4
Naphthalene	0.02	0.019	95	0.02	0.018	90	5.4	27	55.8-136	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103142 **Created Date :** 10/30/17 **Created By :** Jdongre

Samples in This QC Batch : 17101674.01,02,03,04,05,06,07

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
n-Butylbenzene	0.02	0.023	115	0.02	0.018	90	24.4	20	74.1-120	R4
n-Propylbenzene	0.02	0.022	110	0.02	0.018	90	20	12	78.9-115	R4
o-Xylene	0.02	0.023	115	0.02	0.019	95	19	11	86-111	L1,R4
sec-Butylbenzene	0.02	0.023	115	0.02	0.018	90	24.4	12	80.2-115	R4
Styrene	0.02	0.023	115	0.02	0.019	95	19	12	86.7-111	L1,R4
t-butylbenzene	0.02	0.023	115	0.02	0.018	90	24.4	14	80.7-116	R4
Tetrachloroethylene	0.02	0.023	115	0.02	0.018	90	24.4	27	64.2-140	R4
Toluene	0.02	0.023	115	0.02	0.019	95	19	12	85.9-110	L1,R4
trans-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.018	90	24.4	12	73.7-124	R4
trans-1,3-Dichloropropene	0.02	0.021	105	0.02	0.02	100	4.9	14	83-114	
Trichloroethylene	0.02	0.022	110	0.02	0.018	90	20	12	85.4-114	R4
Trichlorofluoromethane	0.02	0.019	95	0.02	0.014	70	30.3	12	74.3-126	L2
Vinyl Chloride	0.02	0.017	85	0.02	0.013	65	26.7	17	61.8-142	R4
Xylenes	0.06	0.068	113	0.06	0.056	93.3	19.4	9	81.2-117	R4

QC Type: MS and MSD
QC Sample ID: 17101674.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.02	0.022	110						72-139	
1,1,1-Trichloroethane	BRL	0.02	0.022	110						70.6-135	
1,1,2,2-Tetrachloroethane	BRL	0.02	0.024	120						55-149	
1,1,2-Trichloroethane	BRL	0.02	0.023	115						68-139	
1,1-Dichloroethane	BRL	0.02	0.021	105						78-134	
1,1-Dichloroethylene	BRL	0.02	0.023	115						65-141	
1,1-Dichloropropene	BRL	0.02	0.022	110						79-136	
1,2,3-trichlorobenzene	BRL	0.02	0.023	115						54-144	
1,2,3-Trichloropropane	BRL	0.02	0.024	120						58-156	
1,2,4-Trichlorobenzene	BRL	0.02	0.022	110						69-127	
1,2,4-Trimethylbenzene	BRL	0.02	0.022	110						80-131	
1,2-Dibromo-3-chloropropa	BRL	0.02	0.025	125						61-145	
1,2-Dibromoethane	BRL	0.02	0.025	125						68-140	
1,2-Dichlorobenzene	BRL	0.02	0.022	110						70-138	
1,2-Dichloroethane	BRL	0.02	0.023	115						67-152	
1,2-Dichloropropane	BRL	0.02	0.021	105						79-135	
1,3,5-Trimethylbenzene	BRL	0.02	0.022	110						79-133	
1,3-Dichlorobenzene	BRL	0.02	0.022	110						79-128	
1,3-Dichloropropane	BRL	0.02	0.021	105						70-147	
1,4-Dichlorobenzene	BRL	0.02	0.022	110						76-127	
1,4-Dioxane	BRL	0.64	0.804	126						70-125	M8

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/L

QC Batch ID : Qb17103142 **Created Date :** 10/30/17 **Created By :** Jdongre

Samples in This QC Batch : 17101674.01,02,03,04,05,06,07

QC Type: MS and MSD
QC Sample ID: 17101674.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,2-Dichloropropane	BRL	0.02	0.023	115						60-129	
2-Chlorotoluene	BRL	0.02	0.022	110						83-130	
4-Chlorotoluene	BRL	0.02	0.022	110						82-129	
4-Isopropyltoluene	BRL	0.02	0.022	110						78-129	
Benzene	BRL	0.02	0.022	110						73-129	
Bromobenzene	BRL	0.02	0.022	110						76-132	
Bromochloromethane	BRL	0.02	0.022	110						76-135	
Bromodichloromethane	BRL	0.02	0.024	120						80-136	
Bromoform	BRL	0.02	0.025	125						65-139	
Bromomethane	BRL	0.02	0.016	80						65-150	
Carbon disulfide	BRL	0.02	0.015	75						70-125	
Carbon tetrachloride	BRL	0.02	0.024	120						70-136	
Chlorobenzene	BRL	0.02	0.022	110						69-123	
Chloroethane	BRL	0.02	0.016	80						74-145	
Chloroform	BRL	0.02	0.022	110						41.8-164	
Chloromethane	BRL	0.02	0.023	115						42.2-160	
cis-1,2-Dichloroethylene	BRL	0.02	0.022	110						71-134	
cis-1,3-Dichloropropene	BRL	0.02	0.021	105						74-128	
Dibromochloromethane	BRL	0.02	0.024	120						67-141	
Dibromomethane	BRL	0.02	0.024	120						63.1-135	
Dichlorodifluoromethane	BRL	0.02	0.03	150						62-146	M8
Ethylbenzene	BRL	0.02	0.022	110						80-132	
Isopropylbenzene	BRL	0.02	0.023	115						78-137	
m- & p-Xylenes	BRL	0.04	0.044	110						74-127	
MEK	BRL	0.02	0.022	110						52-148	
Methylene chloride	BRL	0.02	0.019	95						68-131	
Naphthalene	BRL	0.02	0.023	115						61-116	
n-Butylbenzene	BRL	0.02	0.023	115						73-140	
n-Propylbenzene	BRL	0.02	0.022	110						75-127	
o-Xylene	BRL	0.02	0.022	110						74-126	
sec-Butylbenzene	BRL	0.02	0.022	110						75-129	
Styrene	BRL	0.02	0.023	115						77-123	
t-butylbenzene	BRL	0.02	0.022	110						75-126	
Tetrachloroethylene	BRL	0.02	0.022	110						27.6-194	
Toluene	BRL	0.02	0.023	115						72-121	
trans-1,2-Dichloroethylene	BRL	0.02	0.022	110						73-138	
trans-1,3-Dichloropropene	BRL	0.02	0.022	110						66-131	
Trichloroethylene	BRL	0.02	0.023	115						6-138	
Trichlorofluoromethane	BRL	0.02	0.018	90						67-148	
Vinyl Chloride	BRL	0.02	0.017	85						59.4-140	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Volatile Organic Compounds **Method : SW-846 8260C** **Reporting Units : mg/L**

QC Batch ID : Qb17103142 **Created Date :** 10/30/17 **Created By :** Jdongre

Samples in This QC Batch : 17101674.01,02,03,04,05,06,07

QC Type: MS and MSD
QC Sample ID: 17101674.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Xylenes	BRL	0.06	0.066	110						73-127	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101674 **Date :** 11/3/2017

Analysis : Metals by ICP/MS **Method : SW-846 6020B** **Reporting Units : mg/L**

QC Batch ID : Qb17110204 **Created Date :** 11/01/17 **Created By :** Ggorane

Samples in This QC Batch : 17101674.02,03,04,05,06,07

Digestion : PB17110202 **Prep Method :** SW-846 3010A **Prep Date :** 11/01/17 13:45 **Prep By :** JYou

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL		Qual
Lead	7439-92-1	< MDL	mg/L	1	0.00025	0.0002		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Lead	2	2.2224	111	2	2.3275	116	4.6	20	80-120	

QC Type: MS and MSD
QC Sample ID: 17101674.06

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Lead	0.0009	2	2.1118	106						80-120	

Refer to the Definition page for terms.

A & B Labs — *Chain of Custody* — The Chain of Custody is a Legal Document — Page 1 of 1

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 17.10.1674

5. Project #

1. REPORT TO:
Company: Weston Solutions
Address: 5599 San Felipe Suite 700
Houston, TX 77056
Contact: Dawn Denham
Phone: 713-985-6600
Fax: ☐
E-mail: ☒ dawn.denham@westonsolutions.com

2. INVOICE TO:
Company: Same as "report to"
Address:
Contact:
Phone:
Fax: ☐
E-mail: ☐

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☒ Other: 5 day
☐ 2 Days*
☐ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location
DRA Block 333 Phase II

7. Reporting Requirement:
☐ TRRP Limits only ☒ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☒ EDD

8. Sampler's Name & Company (PLEASE PRINT): Rachel Omerza & Ryan Goss - Weston
Sampler's Signature & Date: 10/27/17

13. No. of Containers
14. Containers* VOA poly
15. Preservatives** HCl HNO3
16. PH-Lab Only
17. Analyses/Methods: VOCs 8260B (full suites) TRRP; Metals 6020 (Lead only)

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	10. Sampling Time 24hr	11. Comp.	11. Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	No. of Containers	VOCs 8260B (full suites) TRRP	Metals 6020 (Lead only)	18. REMARKS to micron RL
01A	Trip Blank-5	10/27/17	—		X								1	X		
02AE	MW-1		0901		X								5	X	X	See above - VOCs, metals
03AE	MW-2		1012		X								5	X	X	
04AE	MW-3		1159		X								5	X	X	
05AE	MW-4		1304		X								5	X	X	
06AE	DUP-3		1234		X								5	X	X	See above - VOCs, metals
07AE	EB-1	10/27/17	1400		X								5	X	X	Equipment blank. See above-VOCs

* VOCs - 1 unpreserved 2 preserved VOAs
* Metals - 1 filtered sample (analytes), and 1 field filtered sample (Lead)

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1 Ryan Goss	10/27/17	1544		10/27/17	15:44
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 5.3 -0.5 = 5.0
Thermometer ID 140539631
Intact: (Y) or N Initials S.G

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other
**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT
BILL OF LADING/TRACKING #

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

Sample Condition Checklist

A&B JobID : **17101674**	Date Received : **10/27/2017**	Time Received : **3:44PM**
Client Name : **Weston Solutions**		
Temperature : **5.8-0.5cf=5.3°C**	Sample pH : **<2 Metals**	
Thermometer ID : **140539631**	pH Paper ID : **72375**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** **Water** ☑ **Soil** ☐ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☐ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**	X		
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**		X	
14.	**Sample volume is sufficient for analyses requested.**		X	
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**	X		
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Did not receive 07E. 07D has 'Unfiltered'. -ANH 10-27-17.

Received by : Sortega

Check in by/date : AHall / 10/27/2017

DCS Summary

A&B JobID 17101674
Weston Solutions
DRA Block 333 Phase II
Sample Collected 10/27/2017

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 6020B	Aluminum	0.005764	mg/L	1	0.0005	mg/L	1153	11/01/2017	Ggorane
DCS	SW-846 6020B	Antimony	0.009409	mg/L	1	0.0005	mg/L	1882	11/01/2017	Ggorane
DCS	SW-846 6020B	Arsenic	0.000556	mg/L	1	0.0005	mg/L	111	11/01/2017	Ggorane
DCS	SW-846 6020B	Barium	0.000568	mg/L	1	0.0005	mg/L	114	11/01/2017	Ggorane
DCS	SW-846 6020B	Beryllium	0.000564	mg/L	1	0.0005	mg/L	113	11/01/2017	Ggorane
DCS	SW-846 6020B	Cadmium	0.000402	mg/L	1	0.0005	mg/L	80.4	11/01/2017	Ggorane
DCS	SW-846 6020B	Calcium	0.101211	mg/L	1	0.05	mg/L	202	11/01/2017	Ggorane
DCS	SW-846 6020B	Chromium	0.000687	mg/L	1	0.0005	mg/L	137	11/01/2017	Ggorane
DCS	SW-846 6020B	Cobalt	0.000585	mg/L	1	0.0005	mg/L	117	11/01/2017	Ggorane
DCS	SW-846 6020B	Copper	0.000473	mg/L	1	0.0005	mg/L	94.6	11/01/2017	Ggorane
DCS	SW-846 6020B	Iron	0.061261	mg/L	1	0.05	mg/L	123	11/01/2017	Ggorane
DCS	SW-846 6020B	Lead	0.0006	mg/L	1	0.0005	mg/L	113	11/01/2017	Ggorane
DCS	SW-846 6020B	Magnesium	0.056239	mg/L	1	0.05	mg/L	112	11/01/2017	Ggorane
DCS	SW-846 6020B	Manganese	0.000665	mg/L	1	0.0005	mg/L	133	11/01/2017	Ggorane
DCS	SW-846 6020B	Molybdenum	0.00056	mg/L	1	0.0005	mg/L	112	11/01/2017	Ggorane
DCS	SW-846 6020B	Nickel	0.000648	mg/L	1	0.0005	mg/L	130	11/01/2017	Ggorane
DCS	SW-846 6020B	Potassium	0.145243	mg/L	1	0.05	mg/L	290	11/01/2017	Ggorane
DCS	SW-846 6020B	Selenium	0.002091	mg/L	1	0.0005	mg/L	418	11/01/2017	Ggorane
DCS	SW-846 6020B	Silver	0.000509	mg/L	1	0.0005	mg/L	102	11/01/2017	Ggorane
DCS	SW-846 6020B	Sodium	0.151567	mg/L	1	0.05	mg/L	303	11/01/2017	Ggorane
DCS	SW-846 6020B	Strontium	0.005793	mg/L	1	0.005	mg/L	116	11/01/2017	Ggorane
DCS	SW-846 6020B	Thallium	0.000566	mg/L	1	0.0005	mg/L	113	11/01/2017	Ggorane
DCS	SW-846 6020B	Thorium	0.000468	mg/L	1	0.0005	mg/L	93.6	11/01/2017	Ggorane
DCS	SW-846 6020B	Tin	0.0018	mg/L	1	0.0005	mg/L	360	11/01/2017	Ggorane
DCS	SW-846 6020B	Titanium	0.001137	mg/L	1	0.0005	mg/L	227	11/01/2017	Ggorane
DCS	SW-846 6020B	Uranium	0.000371	mg/L	1	0.0005	mg/L	74.2	11/01/2017	Ggorane
DCS	SW-846 6020B	Vanadium	0.000968	mg/L	1	0.0005	mg/L	194	11/01/2017	Ggorane

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 6020B	Zinc	0.001708	mg/L	1	0.0005	mg/L	342	11/01/2017	Ggorane

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	1,1,1,2-Tetrachloroethane	0.0057	mg/L	1	0.004	mg/L	143	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,1-Trichloroethane	0.0054	mg/L	1	0.004	mg/L	135	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,2,2-Tetrachloroethane	0.006	mg/L	1	0.004	mg/L	150	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1,2-Trichloroethane	0.0054	mg/L	1	0.004	mg/L	135	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloroethane	0.0056	mg/L	1	0.004	mg/L	140	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloroethylene	0.0053	mg/L	1	0.004	mg/L	133	10/24/2017	Jdongre
DCS	SW-846 8260C	1,1-Dichloropropene	0.0045	mg/L	1	0.004	mg/L	113	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,3-trichlorobenzene	0.0038	mg/L	1	0.004	mg/L	95	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,3-Trichloropropane	0.0063	mg/L	1	0.004	mg/L	158	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,4-Trichlorobenzene	0.0022	mg/L	1	0.004	mg/L	55	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2,4-Trimethylbenzene	0.003	mg/L	1	0.004	mg/L	75	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dibromo-3-chloropropane	0.005	mg/L	1	0.004	mg/L	125	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dibromoethane	0.0049	mg/L	1	0.004	mg/L	123	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichlorobenzene	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichloroethane	0.0059	mg/L	1	0.004	mg/L	148	10/24/2017	Jdongre
DCS	SW-846 8260C	1,2-Dichloropropane	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3,5-Trimethylbenzene	0.003	mg/L	1	0.004	mg/L	75	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3-Dichlorobenzene	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	1,3-Dichloropropane	0.0052	mg/L	1	0.004	mg/L	130	10/24/2017	Jdongre
DCS	SW-846 8260C	1,4-Dichlorobenzene	0.005	mg/L	1	0.004	mg/L	125	10/24/2017	Jdongre
DCS	SW-846 8260C	1,4-Dioxane	0.158	mg/L	1	0.128	mg/L	123	10/24/2017	Jdongre
DCS	SW-846 8260C	2,2-Dichloropropane	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	2-Chlorotoluene	0.0047	mg/L	1	0.004	mg/L	118	10/24/2017	Jdongre
DCS	SW-846 8260C	4-Chlorotoluene	0.003	mg/L	1	0.004	mg/L	75	10/24/2017	Jdongre
DCS	SW-846 8260C	4-Isopropyltoluene	0.0027	mg/L	1	0.004	mg/L	67.5	10/24/2017	Jdongre

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	Benzene	0.0048	mg/L	1	0.004	mg/L	120	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromobenzene	0.0049	mg/L	1	0.004	mg/L	123	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromochloromethane	0.0057	mg/L	1	0.004	mg/L	143	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromodichloromethane	0.0058	mg/L	1	0.004	mg/L	145	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromoform	0.0061	mg/L	1	0.004	mg/L	153	10/24/2017	Jdongre
DCS	SW-846 8260C	Bromomethane	0.0064	mg/L	1	0.004	mg/L	160	10/24/2017	Jdongre
DCS	SW-846 8260C	Carbon disulfide	0.0034	mg/L	1	0.004	mg/L	85	10/24/2017	Jdongre
DCS	SW-846 8260C	Carbon tetrachloride	0.0052	mg/L	1	0.004	mg/L	130	10/24/2017	Jdongre
DCS	SW-846 8260C	Chlorobenzene	0.0053	mg/L	1	0.004	mg/L	133	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloroethane	0.0053	mg/L	1	0.004	mg/L	133	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloroform	0.0056	mg/L	1	0.004	mg/L	140	10/24/2017	Jdongre
DCS	SW-846 8260C	Chloromethane	0.0067	mg/L	1	0.004	mg/L	168	10/24/2017	Jdongre
DCS	SW-846 8260C	cis-1,2-Dichloroethylene	0.0046	mg/L	1	0.004	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	cis-1,3-Dichloropropene	0.0042	mg/L	1	0.004	mg/L	105	10/24/2017	Jdongre
DCS	SW-846 8260C	Dibromochloromethane	0.0051	mg/L	1	0.004	mg/L	128	10/24/2017	Jdongre
DCS	SW-846 8260C	Dibromomethane	0.0058	mg/L	1	0.004	mg/L	145	10/24/2017	Jdongre
DCS	SW-846 8260C	Dichlorodifluoromethane	0.0045	mg/L	1	0.004	mg/L	113	10/24/2017	Jdongre
DCS	SW-846 8260C	Ethylbenzene	0.0042	mg/L	1	0.004	mg/L	105	10/24/2017	Jdongre
DCS	SW-846 8260C	Isopropylbenzene	0.0028	mg/L	1	0.004	mg/L	70	10/24/2017	Jdongre
DCS	SW-846 8260C	m- & p-Xylenes	0.0092	mg/L	1	0.008	mg/L	115	10/24/2017	Jdongre
DCS	SW-846 8260C	MEK	0.0056	mg/L	1	0.004	mg/L	140	10/24/2017	Jdongre
DCS	SW-846 8260C	Methylene chloride	0.0036	mg/L	1	0.004	mg/L	90	10/24/2017	Jdongre
DCS	SW-846 8260C	MTBE	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	Naphthalene	0.0024	mg/L	1	0.004	mg/L	60	10/24/2017	Jdongre
DCS	SW-846 8260C	n-Butylbenzene	0.0022	mg/L	1	0.004	mg/L	55	10/24/2017	Jdongre

QCType	Method	Parameter	Result	Units	D.F.	Spike Amount	Spike Units	%Rec	EnteredDate	EnteredBy
DCS	SW-846 8260C	n-Propylbenzene	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	o-Xylene	0.0028	mg/L	1	0.004	mg/L	70	10/24/2017	Jdongre
DCS	SW-846 8260C	sec-Butylbenzene	0.004	mg/L	1	0.004	mg/L	100	10/24/2017	Jdongre
DCS	SW-846 8260C	Styrene	0.0036	mg/L	1	0.004	mg/L	90	10/24/2017	Jdongre
DCS	SW-846 8260C	t-butylbenzene	0.0025	mg/L	1	0.004	mg/L	62.5	10/24/2017	Jdongre
DCS	SW-846 8260C	Tetrachloroethylene	0.0061	mg/L	1	0.004	mg/L	153	10/24/2017	Jdongre
DCS	SW-846 8260C	Toluene	0.0052	mg/L	1	0.004	mg/L	130	10/24/2017	Jdongre
DCS	SW-846 8260C	trans-1,2-Dichloroethylene	0.0051	mg/L	1	0.004	mg/L	128	10/24/2017	Jdongre
DCS	SW-846 8260C	trans-1,3-Dichloropropene	0.0043	mg/L	1	0.004	mg/L	108	10/24/2017	Jdongre
DCS	SW-846 8260C	Trichloroethylene	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	Trichlorofluoromethane	0.0054	mg/L	1	0.004	mg/L	135	10/24/2017	Jdongre
DCS	SW-846 8260C	Vinyl Chloride	0.0041	mg/L	1	0.004	mg/L	103	10/24/2017	Jdongre
DCS	SW-846 8260C	Xylenes	0.012	mg/L	1	0.012	mg/L	100	10/26/2017	Jdongre

Laboratory Data Package Cover Page

This data package is for Job No. 17101674 and laboratory batch no(s). Qb17103142,Qb17110204 and consists of:

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:

c. LCS spiking amounts,

d. Calculated %R for each analyte, and

e. The laboratory's LCS QC limits.

☒ R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

f. Samples associated with the MS/MSD clearly identified,

g. MS/MSD spiking amounts,

h. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

i. Calculated %Rs and relative percent differences (RPDs), and

j. The laboratory's MS/MSD QC limits

☒ R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

k. The amount of analyte measured in the duplicate,

l. The calculated RPD, and

m. 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.

10100 East Freeway, Suite 100
Houston, TX 77029

Phone:713-453-6060
Fax: 713-453-6091

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 Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/ anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [ ] This laboratory meets an exception under 30 TAC §25.6 and was last inspection by [ ] TCEQ or [ ] _____ on _____. 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 forreleasing this data package and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Alisha Hughes	Alisha Hughes	Project Manager	11/03/2017

Laboratory Review Checklist: Reportable Data

Project Name:
A&B Job ID:
Prep Batch Number(s):

Reviewed By:
Date Reviewed: 01/01/0001

#	A	Description	Yes	No	NA	NR	ER#
R1	**OI**	**Chain-of Custody**					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		2) Were all departures from standard conditions described in an exception report?	X				
R2	**OI**	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross referenced to corresponding QC data?	X				
R3	**OI**	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results <MQL, were all other reported results within calibration range?		X			R3/2
		3) Were calculations subject to appropriate checks?	X				
		4) Were all analyte identifications subject to appropriate checks?	X				
		5) Were all sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Was % moisture (or solids) reported for all samples?			X		
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035			X		
		9) If required for the project, were tentatively dentified compounds (TICs) reported?			X		
R4	**OI**	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries (%R) within the laboratory QC limits?	X				
R5	**OI**	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blanks free of detected target compounds and, if applicable, reported TICs?	X				
R6	**OI**	**Laboratory Control Samples (LCS)**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps ?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6/4
		5) Were LCSs spiked at or below the LORP or do the detectability data document the laboratory's capability of detecting the COCs in samples spiked at the MDL?	X				
		6) Was the LCSD RPD within QC limits?		X			R6/6
R7	**OI**	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %R within the laboratory QC limits?		X			R7/3
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	**OI**	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	**OI**	**Method Quatitation Limits MQLs)**					
		1) Are the MQLs for each method analyte listed and included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero standard?	X				

Laboratory Review Checklist: Reportable Data

Project Name:
A&B Job ID:
Prep Batch Number(s):

Reviewed By:
Date Reviewed: 01/01/0001

#	A	Description	Yes	No	NA	NR	ER#
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				
S1	OI	**INITIAL CALIBRATION (ICAL)**					
		1) Were response factors (RFs) and/or relative response factors (RRFs) for each analyte within the QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Were the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for instruments used?	X				
		6) 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):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**MASS SPECTRAL TUNING:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) 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 5.5.10)**					
		1) Were the raw data (e.g., chromatograms, and spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	OI	**DUAL COLUMN CONFIRMATION**					
		Did dual column confirmation results meet the method-required QC?	X				
S7	OI	**TENTATIVELY IDENTIFIED COMPOUNDS (TICS):**					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	OI	**INTERFERENCE CHECK SAMPLE (ICS) RESULTS:**					
		Were percent recoveries within method QC limits?	X				
S9	OI	**SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS**					
		Were percent differences, recoveries, and the linearity within the QC limits	X				
S10	OI	**VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS**					
		Are all methods documented and verified and validated, where applicable, (NELAC 5.10.2 or ISO/IEC 17025 Section 5.4.5)?	X				
S11	OI	**METHOD DETECTION LIMIT (MDL) STUDIES**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S12	OI	**STANDARDS DOCUMENTATION**					
		Are the standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				

Laboratory Review Checklist: Reportable Data

Project Name:
A&B Job ID:
Prep Batch Number(s):

Reviewed By:
Date Reviewed: 01/01/0001

#	A	Description	Yes	No	NA	NR	ER#
S13	**OI**	**COMPOUND/ANALYTE IDENTIFICATION PROCEDURES**					
		Are the procedures for compound/analyte identification documented?	X				
S14	**OI**	**DEMONSTRATION OF CAPABILITY (DOC)**					
		1) Was DOC conducted generally consistent with NELAC 5C or ISO/IEC 4.2.2?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	**OI**	**PROFICIENCY TEST REPORTS:**					
		Are proficiency testing or inter-laboratory comparison results on file?	X				
S16	**OI**	**LABORATORY STANDARD OPERATING PROCEDURES (SOPS):**					
		Are laboratory SOPs current and on file for each method performed?	X				

ER#	EXCEPTION			
R3/2	J - Estimation. Below calibration range but above MDL.			
	(J) MW-4	17101674.05	Qb17103142	VOC
	(J) Dup-3	17101674.06	Qb17103142	VOC
R6/4	L1 - Associated LCS and/or LCSD recovery is above acceptance limits for flagged analyte. Bias may be high., L2 - Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.			
	---	---	Qb17103142	VOC
	---	---	Qb17103142	VOC
R6/6	R4 - LCS/LCSD RPD exceeds control limit. Recovery meets acceptance criteria.			
	---	---	Qb17103142	VOC
R7/3	M8 - Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.			
	(M8) Trip Blank-5	17101674.01	Qb17103142	VOC

O = organic analyses;

I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

NR = Not Reviewed;

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

APPENDIX B

LABORATORY NELAP CERTIFICATE

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method EPA 1010

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606

Method EPA 120.1

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10006403

Method EPA 1311

Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806

Method EPA 1312

Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003

Method EPA 150.1

Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10008409

Method EPA 160.1

Analyte	AB	Analyte ID	Method ID
Residue-filterable (TDS)	TX	1955	10009208

Method EPA 160.2

Analyte	AB	Analyte ID	Method ID
Residue-nonfilterable (TSS)	TX	1960	10009606

Method EPA 1664

Analyte	AB	Analyte ID	Method ID
n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10127807

Method EPA 180.1

Analyte	AB	Analyte ID	Method ID
Turbidity	TX	2055	10011606

Method EPA 200.8

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10014605
Antimony	TX	1005	10014605
Arsenic	TX	1010	10014605

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Barium	TX	1015	10014605
Beryllium	TX	1020	10014605
Boron	TX	1025	10014605
Cadmium	TX	1030	10014605
Calcium	TX	1035	10014605
Chromium	TX	1040	10014605
Cobalt	TX	1050	10014605
Copper	TX	1055	10014605
Iron	TX	1070	10014605
Lead	TX	1075	10014605
Magnesium	TX	1085	10014605
Manganese	TX	1090	10014605
Molybdenum	TX	1100	10014605
Nickel	TX	1105	10014605
Potassium	TX	1125	10014605
Selenium	TX	1140	10014605
Silver	TX	1150	10014605
Sodium	TX	1155	10014605
Strontium	TX	1160	10014605
Thallium	TX	1165	10014605
Tin	TX	1175	10014605
Titanium	TX	1180	10014605
Vanadium	TX	1185	10014605
Zinc	TX	1190	10014605

Method EPA 245.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10036609

Method EPA 300.0

Analyte	**AB**	**Analyte ID**	**Method ID**
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Orthophosphate as P	TX	1870	10053006
Sulfate	TX	2000	10053006

Method EPA 305.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Acidity, as CaCO3	TX	1500	10054203

Method EPA 310.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Alkalinity as CaCO3	TX	1505	10054805

Method EPA 335.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	10060001

Method EPA 335.2

Analyte	**AB**	**Analyte ID**	**Method ID**
Total cyanide	TX	1645	10060205

Method EPA 365.2

Analyte	**AB**	**Analyte ID**	**Method ID**
Orthophosphate as P	TX	1870	10070403
Phosphorus	TX	1910	10070403

Method EPA 376.2

Analyte	**AB**	**Analyte ID**	**Method ID**
Sulfide	TX	2005	10074609

Method EPA 415.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Total Organic Carbon (TOC)	TX	2040	10078407

Method EPA 6020

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10156204

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Antimony	TX	1005	10156204
Arsenic	TX	1010	10156204
Barium	TX	1015	10156204
Beryllium	TX	1020	10156204
Boron	TX	1025	10156204
Cadmium	TX	1030	10156204
Calcium	TX	1035	10156204
Chromium	TX	1040	10156204
Cobalt	TX	1050	10156204
Copper	TX	1055	10156204
Iron	TX	1070	10156204
Lead	TX	1075	10156204
Lithium	TX	1080	10156204
Magnesium	TX	1085	10156204
Manganese	TX	1090	10156204
Molybdenum	TX	1100	10156204
Nickel	TX	1105	10156204
Potassium	TX	1125	10156204
Selenium	TX	1140	10156204
Silver	TX	1150	10156204
Sodium	TX	1155	10156204
Strontium	TX	1160	10156204
Thallium	TX	1165	10156204
Tin	TX	1175	10156204
Titanium	TX	1180	10156204
Vanadium	TX	1185	10156204
Zinc	TX	1190	10156204

Method EPA 608

Analyte	**AB**	**Analyte ID**	**Method ID**
Aroclor-1016 (PCB-1016)	TX	8880	10103603

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19
Expiration Date: 4/30/2018
Issue Date: 5/1/2017

DHL Analytical, Inc.

2300 Double Creek Drive
Round Rock, TX 78664-3801

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603

Method EPA 624

Analyte	**AB**	**Analyte ID**	**Method ID**
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207
1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207
Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,2-Dichloroethylene	TX	4645	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl bromide (Bromomethane)	TX	4950	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
Naphthalene	TX	5005	10107207
o-Xylene	TX	5250	10107207
Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
Total trihalomethanes	TX	5205	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207

Method EPA 625

Analyte	**AB**	**Analyte ID**	**Method ID**
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10107401
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401
1,2-Dichlorobenzene	TX	4610	10107401
1,2-Diphenylhydrazine	TX	6220	10107401
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

2,3,4,6-Tetrachlorophenol	TX	6735	10107401
2,4,5-Trichlorophenol	TX	6835	10107401
2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401
3,3'-Dichlorobenzidine	TX	5945	10107401
4,4'-DDD	TX	7355	10107401
4,4'-DDE	TX	7360	10107401
4,4'-DDT	TX	7365	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Methylphenol (p-Cresol)	TX	6410	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Aldrin	TX	7025	10107401
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10107401
alpha-Chlordane	TX	7240	10107401
Anthracene	TX	5555	10107401
Aroclor-1016 (PCB-1016)	TX	8880	10107401
Aroclor-1221 (PCB-1221)	TX	8885	10107401

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Aroclor-1232 (PCB-1232)	TX	8890	10107401
Aroclor-1242 (PCB-1242)	TX	8895	10107401
Aroclor-1248 (PCB-1248)	TX	8900	10107401
Aroclor-1254 (PCB-1254)	TX	8905	10107401
Aroclor-1260 (PCB-1260)	TX	8910	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401
Benzo(k)fluoranthene	TX	5600	10107401
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10107401
bis(2-Chloroethoxy)methane	TX	5760	10107401
bis(2-Chloroethyl) ether	TX	5765	10107401
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10107401
Butyl benzyl phthalate	TX	5670	10107401
Chrysene	TX	5855	10107401
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10107401
Dibenz(a,h) anthracene	TX	5895	10107401
Dieldrin	TX	7470	10107401
Diethyl phthalate	TX	6070	10107401
Dimethyl phthalate	TX	6135	10107401
Di-n-butyl phthalate	TX	5925	10107401
Di-n-octyl phthalate	TX	6200	10107401
Endosulfan I	TX	7510	10107401
Endosulfan II	TX	7515	10107401
Endosulfan sulfate	TX	7520	10107401
Endrin	TX	7540	10107401
Endrin aldehyde	TX	7530	10107401
Fluoranthene	TX	6265	10107401

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Fluorene	TX	6270	10107401
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10107401
gamma-Chlordane	TX	7245	10107401
Heptachlor	TX	7685	10107401
Heptachlor epoxide	TX	7690	10107401
Hexachlorobenzene	TX	6275	10107401
Hexachlorobutadiene	TX	4835	10107401
Hexachlorocyclopentadiene	TX	6285	10107401
Hexachloroethane	TX	4840	10107401
Indeno(1,2,3-cd) pyrene	TX	6315	10107401
Isophorone	TX	6320	10107401
Naphthalene	TX	5005	10107401
Nitrobenzene	TX	5015	10107401
n-Nitrosodiethylamine	TX	6525	10107401
n-Nitrosodimethylamine	TX	6530	10107401
n-Nitrosodi-n-butylamine	TX	5025	10107401
n-Nitrosodi-n-propylamine	TX	6545	10107401
n-Nitrosodiphenylamine	TX	6535	10107401
Pentachlorobenzene	TX	6590	10107401
Pentachlorophenol	TX	6605	10107401
Phenanthrene	TX	6615	10107401
Phenol	TX	6625	10107401
Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401
Toxaphene (Chlorinated camphene)	TX	8250	10107401

Method EPA 7196

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	10162400

Method EPA 7470

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10165807

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19
Expiration Date: 4/30/2018
Issue Date: 5/1/2017

DHL Analytical, Inc.

2300 Double Creek Drive
Round Rock, TX 78664-3801

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method EPA 8015

Analyte	AB	Analyte ID	Method ID
Diesel range organics (DRO)	TX	9369	10173203
Ethylene glycol	TX	4785	10173203
Gasoline range organics (GRO)	TX	9408	10173203
Propylene Glycol	TX	6657	10173203

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007

Method EPA 8260

Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1-Chlorohexane	TX	4510	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Benzene	TX	4375	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Chloroform	TX	4505	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Di-isopropylether (DIPE)	TX	9375	10184802
Ethylbenzene	TX	4765	10184802
Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)	TX	4770	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methyl acetate	TX	4940	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylcyclohexane	TX	4965	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
T-amylmethylether (TAME)	TX	4370	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
Total trihalomethanes	TX	5205	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19
Expiration Date: 4/30/2018
Issue Date: 5/1/2017

DHL Analytical, Inc.

2300 Double Creek Drive
Round Rock, TX 78664-3801

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	**AB**	**Analyte ID**	**Method ID**
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10185805
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805
2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Nitroaniline	TX	6465	10185805
4,4'-DDD	TX	7355	10185805
4,4'-DDE	TX	7360	10186002
4,4'-DDT	TX	7365	10185805
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Dimethyl aminoazobenzene	TX	6105	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805
4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
a-a-Dimethylphenethylamine	TX	6125	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aldrin	TX	7025	10186002
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10186002
alpha-Chlordane	TX	7240	10185601
Aniline	TX	5545	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Anthracene	TX	5555	10185805
Aroclor-1016 (PCB-1016)	TX	8880	10186002
Aroclor-1221 (PCB-1221)	TX	8885	10185203
Aroclor-1232 (PCB-1232)	TX	8890	10185407
Aroclor-1242 (PCB-1242)	TX	8895	10185203
Aroclor-1248 (PCB-1248)	TX	8900	10186002
Aroclor-1254 (PCB-1254)	TX	8905	10185601
Aroclor-1260 (PCB-1260)	TX	8910	10185203
Atrazine	TX	7065	10185805
Azinphos-methyl (Guthion)	TX	7075	10185805
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(e)pyrene	TX	5605	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10185203
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbaryl (Sevin)	TX	7195	10185407
Carbazole	TX	5680	10185805
Carbophenothion	TX	7220	10185407
Chlordane (tech.)	TX	7250	10185203

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Chlorfenvinphos	TX	7255	10185805
Chrysene	TX	5855	10185805
Coumaphos	TX	7315	10186002
Crotoxyphos	TX	7330	10185407
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10185805
Demeton	TX	7390	10185407
Demeton-o	TX	7395	10185203
Demeton-s	TX	7385	10185601
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenzofuran	TX	5905	10185805
Dichlorovos (DDVP, Dichlorvos)	TX	8610	10186002
Dicrotophos	TX	7465	10185407
Dieldrin	TX	7470	10186002
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Dioxathion	TX	7495	10185203
Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185601
Endosulfan I	TX	7510	10185805
Endosulfan II	TX	7515	10185203
Endosulfan sulfate	TX	7520	10185601
Endrin	TX	7540	10185203
Endrin aldehyde	TX	7530	10185805
Endrin ketone	TX	7535	10186002
EPN (Phosphonothioic acid, phenyl-, O-ethyl O-(p-nitrophenyl) ester)	TX	7550	10186002
Ethion	TX	7565	10185805
Ethyl methanesulfonate	TX	6260	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Famphur	TX	7580	10185407
Fensulfothion	TX	7600	10185203
Fenthion	TX	7605	10186002
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10185203
gamma-Chlordane	TX	7245	10185203
Heptachlor	TX	7685	10185601
Heptachlor epoxide	TX	7690	10185805
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachlorophene	TX	6290	10185805
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185407
Isophorone	TX	6320	10185805
Leptophos	TX	7755	10186002
Malathion	TX	7770	10186002
Methoxychlor	TX	7810	10185601
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185203
Mevinphos	TX	7850	10186002
Monocrotophos	TX	7880	10185203
Naled	TX	7905	10185203
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosopiperidine	TX	6560	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10186002
Phosmet (Imidan)	TX	8000	10186002
Phosphamidon	TX	8005	10185805
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Quinoline	TX	6670	10185805
Sulfotepp	TX	8155	10186002
Terbufos	TX	8185	10185805
Tetrachlorvinphos (Stirophos, Gardona)	TX	8197	10186002
Tetraethyl pyrophosphate (TEPP)	TX	8210	10185407
Toxaphene (Chlorinated camphene)	TX	8250	10185203

Method EPA 8321

Analyte	**AB**	**Analyte ID**	**Method ID**
2,4,5-T	TX	8655	10188804
2,4-D	TX	8545	10188804
2,4-DB	TX	8560	10188804
Dalapon	TX	8555	10188804
Dicamba	TX	8595	10188804
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10188804

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19
Expiration Date: 4/30/2018
Issue Date: 5/1/2017

DHL Analytical, Inc.

2300 Double Creek Drive
Round Rock, TX 78664-3801

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10188804
MCPA	TX	7775	10188804
MCPP	TX	7780	10188804
Silvex (2,4,5-TP)	TX	8650	10188804

Method EPA 8330

Analyte	**AB**	**Analyte ID**	**Method ID**
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10189807
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10189807
2,4,6-Trinitrotoluene (2,4,6-TNT)	TX	9651	10189807
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10189807
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10189807
2-Amino-4,6-dinitrotoluene (2-am-dnt)	TX	9303	10189807
2-Nitrotoluene	TX	9507	10189807
3-Nitrotoluene	TX	9510	10189807
4-Amino-2,6-dinitrotoluene (4-am-dnt)	TX	9306	10189807
4-Nitrotoluene	TX	9513	10189807
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	TX	6415	10189807
Nitrobenzene	TX	5015	10189807
Nitroglycerin	TX	6485	10189807
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	TX	9522	10189807
Pentaerythritoltetranitrate (PETN)	TX	9558	10189807
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	TX	9432	10189807

Method EPA 9014

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	10193803
Total Cyanide	TX	1635	10193803

Method EPA 9040

Analyte	**AB**	**Analyte ID**	**Method ID**
pH	TX	1900	10197203

Method EPA 9056

Analyte	**AB**	**Analyte ID**	**Method ID**

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199607
Sulfate	TX	2000	10199209

Method EPA 9060

Analyte	**AB**	**Analyte ID**	**Method ID**
Total Organic Carbon (TOC)	TX	2040	10200201

Method EPA 9070

Analyte	**AB**	**Analyte ID**	**Method ID**
n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10201000

Method EPA RSK 175

Analyte	**AB**	**Analyte ID**	**Method ID**
Carbon dioxide	TX	3755	10212905
Ethane	TX	4747	10212905
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
n-Butane	TX	5007	10212905
n-Propane	TX	5029	10212905

Method HACH 8000

Analyte	**AB**	**Analyte ID**	**Method ID**
Chemical oxygen demand (COD)	TX	1565	60003001

Method SM 2130 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Turbidity	TX	2055	20048220

Method SM 2310 B (4a)

Analyte	**AB**	**Analyte ID**	**Method ID**
Acidity, as CaCO3	TX	1500	20044615

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method	Analyte	AB	Analyte ID	Method ID
SM 2320 B	Alkalinity as CaCO3	TX	1505	20045618
SM 2340 B	Total hardness as CaCO3	TX	1755	20046611
SM 2510 B	Conductivity	TX	1610	20048617
SM 2540 C	Residue-filterable (TDS)	TX	1955	20050413
SM 2540 D	Residue-nonfilterable (TSS)	TX	1960	20051212
SM 2540 F	Residue-settleable	TX	1965	20005009
SM 3500-Cr B	Chromium (VI)	TX	1045	20066017
SM 4500-CN⁻ E	Total Cyanide	TX	1635	20096428
SM 4500-CN⁻ G	Amenable cyanide	TX	1510	20097227
SM 4500-H+ B	pH	TX	1900	20105220
SM 4500-NH3 D				

Analyte	AB	Analyte ID	Method ID

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Ammonia as N	TX	1515	20109415
Method SM 4500-P E			
Analyte	**AB**	**Analyte ID**	**Method ID**
Orthophosphate as P	TX	1870	20124225
Phosphorus	TX	1910	20124225
Method SM 4500-$S2^{-}$ D			
Analyte	**AB**	**Analyte ID**	**Method ID**
Sulfide	TX	2005	20125864
Method SM 5220 D			
Analyte	**AB**	**Analyte ID**	**Method ID**
Chemical oxygen demand (COD)	TX	1565	20136816
Method SM 5310 C			
Analyte	**AB**	**Analyte ID**	**Method ID**
Total Organic Carbon (TOC)	TX	2040	20138823
Method TCEQ 1005			
Analyte	**AB**	**Analyte ID**	**Method ID**
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Method ASTM D2216

Analyte	AB	Analyte ID	Method ID
Moisture	TX	10337	ASTM D2216-05

Method EPA 1010

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606

Method EPA 1311

Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806

Method EPA 1312

Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003

Method EPA 200.8

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10014605
Antimony	TX	1005	10014605
Arsenic	TX	1010	10014605
Barium	TX	1015	10014605
Beryllium	TX	1020	10014605
Cadmium	TX	1030	10014605
Calcium	TX	1035	10014605
Chromium	TX	1040	10014605
Cobalt	TX	1050	10014605
Copper	TX	1055	10014605
Iron	TX	1070	10014605
Lead	TX	1075	10014605
Magnesium	TX	1085	10014605
Manganese	TX	1090	10014605
Molybdenum	TX	1100	10014605
Nickel	TX	1105	10014605
Potassium	TX	1125	10014605

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Selenium	TX	1140	10014605
Silver	TX	1150	10014605
Sodium	TX	1155	10014605
Strontium	TX	1160	10014605
Thallium	TX	1165	10014605
Tin	TX	1175	10014605
Titanium	TX	1180	10014605
Vanadium	TX	1185	10014605
Zinc	TX	1190	10014605

Method EPA 300.0

Analyte	**AB**	**Analyte ID**	**Method ID**
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006

Method EPA 310.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Alkalinity as CaCO3	TX	1505	10054805

Method EPA 350.3

Analyte	**AB**	**Analyte ID**	**Method ID**
Ammonia as N	TX	1515	10064401

Method EPA 365.2

Analyte	**AB**	**Analyte ID**	**Method ID**
Orthophosphate as P	TX	1870	10070403
Phosphorus	TX	1910	10070403

Method EPA 6020

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10156204

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Antimony	TX	1005	10156204
Arsenic	TX	1010	10156204
Barium	TX	1015	10156204
Beryllium	TX	1020	10156204
Boron	TX	1025	10156204
Cadmium	TX	1030	10156204
Calcium	TX	1035	10156204
Chromium	TX	1040	10156204
Cobalt	TX	1050	10156204
Copper	TX	1055	10156204
Iron	TX	1070	10156204
Lead	TX	1075	10156204
Lithium	TX	1080	10156204
Magnesium	TX	1085	10156204
Manganese	TX	1090	10156204
Molybdenum	TX	1100	10156204
Nickel	TX	1105	10156204
Potassium	TX	1125	10156204
Selenium	TX	1140	10156204
Silver	TX	1150	10156204
Sodium	TX	1155	10156204
Strontium	TX	1160	10156204
Thallium	TX	1165	10156204
Tin	TX	1175	10156204
Titanium	TX	1180	10156204
Vanadium	TX	1185	10156204
Zinc	TX	1190	10156204

Method EPA 7196

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	10162400

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Method EPA 7470

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165807

Method EPA 7471

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166208

Method EPA 8015

Analyte	AB	Analyte ID	Method ID
Diesel range organics (DRO)	TX	9369	10173203
Ethylene glycol	TX	4785	10173203
Gasoline range organics (GRO)	TX	9408	10173203
Propylene Glycol	TX	6657	10173203

Method EPA 8021

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179007
Aroclor-1221 (PCB-1221)	TX	8885	10179007
Aroclor-1232 (PCB-1232)	TX	8890	10179007
Aroclor-1242 (PCB-1242)	TX	8895	10179007
Aroclor-1248 (PCB-1248)	TX	8900	10179007
Aroclor-1254 (PCB-1254)	TX	8905	10179007
Aroclor-1260 (PCB-1260)	TX	8910	10179007
PCBs (total)	TX	8870	10179007

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Method EPA 8260

Analyte	AB	Analyte ID	Method ID
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1-Chlorohexane	TX	4510	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
4-Chlorotoluene	TX	4540	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

4-Isopropyltoluene (p-Cymene)	TX	4915	10184802
4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Benzene	TX	4375	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Ethylbenzene	TX	4765	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methyl acetate	TX	4940	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Methylcyclohexane	TX	4965	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	**AB**	**Analyte ID**	**Method ID**
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10185805
1,2,4,5-Tetrachlorobenzene	TX	6715	10185805
1,2,4-Trichlorobenzene	TX	5155	10185805
1,2-Dichlorobenzene	TX	4610	10185805
1,2-Diphenylhydrazine	TX	6220	10185805
1,3-Dichlorobenzene	TX	4615	10185805
1,4-Dichlorobenzene	TX	4620	10185805
1-Naphthylamine	TX	6425	10185805
2,3,4,6-Tetrachlorophenol	TX	6735	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

2,4,5-Trichlorophenol	TX	6835	10185805
2,4,6-Trichlorophenol	TX	6840	10185805
2,4-Dichlorophenol	TX	6000	10185805
2,4-Dimethylphenol	TX	6130	10185805
2,4-Dinitrophenol	TX	6175	10185805
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10185805
2,6-Dichlorophenol	TX	6005	10185805
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10185805
2-Chloronaphthalene	TX	5795	10185805
2-Chlorophenol	TX	5800	10185805
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10185805
2-Methylnaphthalene	TX	6385	10185805
2-Methylphenol (o-Cresol)	TX	6400	10185805
2-Naphthylamine	TX	6430	10185805
2-Nitroaniline	TX	6460	10185805
2-Nitrophenol	TX	6490	10185805
2-Picoline (2-Methylpyridine)	TX	5050	10185805
3,3'-Dichlorobenzidine	TX	5945	10185805
3-Methylcholanthrene	TX	6355	10185805
3-Nitroaniline	TX	6465	10185805
4,4'-DDD	TX	7355	10185203
4,4'-DDE	TX	7360	10186002
4,4'-DDT	TX	7365	10185407
4-Aminobiphenyl	TX	5540	10185805
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10185805
4-Chloro-3-methylphenol	TX	5700	10185805
4-Chloroaniline	TX	5745	10185805
4-Chlorophenyl phenylether	TX	5825	10185805
4-Dimethyl aminoazobenzene	TX	6105	10185805
4-Methylphenol (p-Cresol)	TX	6410	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

4-Nitroaniline	TX	6470	10185805
4-Nitrophenol	TX	6500	10185805
7,12-Dimethylbenz(a) anthracene	TX	6115	10185805
a-a-Dimethylphenethylamine	TX	6125	10185805
Acenaphthene	TX	5500	10185805
Acenaphthylene	TX	5505	10185805
Acetophenone	TX	5510	10185805
Aldrin	TX	7025	10186002
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10185407
alpha-Chlordane	TX	7240	10185805
Aniline	TX	5545	10185805
Anthracene	TX	5555	10185805
Aroclor-1016 (PCB-1016)	TX	8880	10186002
Aroclor-1221 (PCB-1221)	TX	8885	10185805
Aroclor-1232 (PCB-1232)	TX	8890	10185407
Aroclor-1242 (PCB-1242)	TX	8895	10185407
Aroclor-1248 (PCB-1248)	TX	8900	10185805
Aroclor-1254 (PCB-1254)	TX	8905	10185805
Aroclor-1260 (PCB-1260)	TX	8910	10185407
Atrazine	TX	7065	10185805
Azinphos-methyl (Guthion)	TX	7075	10185203
Benzidine	TX	5595	10185805
Benzo(a)anthracene	TX	5575	10185805
Benzo(a)pyrene	TX	5580	10185805
Benzo(b)fluoranthene	TX	5585	10185805
Benzo(e)pyrene	TX	5605	10185805
Benzo(g,h,i)perylene	TX	5590	10185805
Benzo(k)fluoranthene	TX	5600	10185805
Benzoic acid	TX	5610	10185805
Benzyl alcohol	TX	5630	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10185601
Biphenyl	TX	5640	10185805
bis(2-Chloroethoxy)methane	TX	5760	10185805
bis(2-Chloroethyl) ether	TX	5765	10185805
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10185805
Butyl benzyl phthalate	TX	5670	10185805
Caprolactam	TX	7180	10185805
Carbaryl (Sevin)	TX	7195	10185601
Carbazole	TX	5680	10185805
Carbophenothion	TX	7220	10185805
Chlordane (tech.)	TX	7250	10185805
Chlorfenvinphos	TX	7255	10185203
Chrysene	TX	5855	10185805
Coumaphos	TX	7315	10185805
Crotoxyphos	TX	7330	10185203
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10186002
Demeton	TX	7390	10185805
Demeton-o	TX	7395	10185805
Demeton-s	TX	7385	10185601
Dibenz(a,h) anthracene	TX	5895	10185805
Dibenzofuran	TX	5905	10185805
Dichlorovos (DDVP, Dichlorvos)	TX	8610	10185805
Dicrotophos	TX	7465	10185805
Dieldrin	TX	7470	10185407
Diethyl phthalate	TX	6070	10185805
Dimethoate	TX	7475	10185805
Dimethyl phthalate	TX	6135	10185805
Di-n-butyl phthalate	TX	5925	10185805
Di-n-octyl phthalate	TX	6200	10185805
Dioxathion	TX	7495	10185601

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Diphenylamine	TX	6205	10185805
Disulfoton	TX	8625	10185407
Endosulfan I	TX	7510	10185601
Endosulfan II	TX	7515	10185805
Endosulfan sulfate	TX	7520	10186002
Endrin	TX	7540	10185601
Endrin aldehyde	TX	7530	10186002
Endrin ketone	TX	7535	10186002
EPN (Phosphonothioic acid, phenyl-, O-ethyl O-(p-nitrophenyl) ester)	TX	7550	10186002
Ethion	TX	7565	10185203
Ethyl methanesulfonate	TX	6260	10185805
Famphur	TX	7580	10186002
Fensulfothion	TX	7600	10185805
Fenthion	TX	7605	10186002
Fluoranthene	TX	6265	10185805
Fluorene	TX	6270	10185805
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10185407
gamma-Chlordane	TX	7245	10185601
Heptachlor	TX	7685	10185601
Heptachlor epoxide	TX	7690	10185203
Hexachlorobenzene	TX	6275	10185805
Hexachlorobutadiene	TX	4835	10185805
Hexachlorocyclopentadiene	TX	6285	10185805
Hexachloroethane	TX	4840	10185805
Hexachlorophene	TX	6290	10185601
Indeno(1,2,3-cd) pyrene	TX	6315	10185805
Isodrin	TX	7725	10185203
Isophorone	TX	6320	10185805
Leptophos	TX	7755	10185407
Malathion	TX	7770	10185601

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Methoxychlor	TX	7810	10185203
Methyl methanesulfonate	TX	6375	10185805
Methyl parathion (Parathion, methyl)	TX	7825	10185203
Mevinphos	TX	7850	10185805
Monocrotophos	TX	7880	10185805
Naled	TX	7905	10185805
Naphthalene	TX	5005	10185805
Nitrobenzene	TX	5015	10185805
n-Nitrosodiethylamine	TX	6525	10185805
n-Nitrosodimethylamine	TX	6530	10185805
n-Nitrosodi-n-butylamine	TX	5025	10185805
n-Nitrosodi-n-propylamine	TX	6545	10185805
n-Nitrosodiphenylamine	TX	6535	10185805
n-Nitrosopiperidine	TX	6560	10185805
Parathion, ethyl	TX	7955	10185805
Pentachlorobenzene	TX	6590	10185805
Pentachloronitrobenzene (PCNB)	TX	6600	10185805
Pentachlorophenol	TX	6605	10185805
Phenacetin	TX	6610	10185805
Phenanthrene	TX	6615	10185805
Phenol	TX	6625	10185805
Phorate	TX	7985	10185407
Phosmet (Imidan)	TX	8000	10185203
Phosphamidon	TX	8005	10186002
Pronamide (Kerb)	TX	6650	10185805
Pyrene	TX	6665	10185805
Pyridine	TX	5095	10185805
Quinoline	TX	6670	10185805
Sulfotepp	TX	8155	10185203
Terbufos	TX	8185	10185805

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19
Expiration Date: 4/30/2018
Issue Date: 5/1/2017

DHL Analytical, Inc.

2300 Double Creek Drive
Round Rock, TX 78664-3801

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Tetrachlorvinphos (Stirophos, Gardona)	TX	8197	10186002
Tetraethyl pyrophosphate (TEPP)	TX	8210	10185407
Toxaphene (Chlorinated camphene)	TX	8250	10185203

Method EPA 8321

Analyte	AB	Analyte ID	Method ID
2,4,5-T	TX	8655	10188804
2,4-D	TX	8545	10188804
2,4-DB	TX	8560	10188804
Dalapon	TX	8555	10188804
Dicamba	TX	8595	10188804
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10188804
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10188804
MCPA	TX	7775	10188804
MCPP	TX	7780	10188804
Silvex (2,4,5-TP)	TX	8650	10188804

Method EPA 8330

Analyte	AB	Analyte ID	Method ID
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10189807
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10189807
2,4,6-Trinitrotoluene (2,4,6-TNT)	TX	9651	10189807
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10189807
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10189807
2-Amino-4,6-dinitrotoluene (2-am-dnt)	TX	9303	10189807
2-Nitrotoluene	TX	9507	10189807
3-Nitrotoluene	TX	9510	10189807
4-Amino-2,6-dinitrotoluene (4-am-dnt)	TX	9306	10189807
4-Nitrotoluene	TX	9513	10189807
Methyl-2,4,6-trinitrophenylnitramine (tetryl)	TX	6415	10189807
Nitrobenzene	TX	5015	10189807
Nitroglycerin	TX	6485	10189807
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	TX	9522	10189807

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Pentaerythritoltetranitrate (PETN)	TX	9558	10189807
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	TX	9432	10189807

Method EPA 9014

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	10193803
Total Cyanide	TX	1635	10193803

Method EPA 9040

Analyte	**AB**	**Analyte ID**	**Method ID**
Corrosivity	TX	1615	10197203
pH	TX	1900	10197203

Method EPA 9045

Analyte	**AB**	**Analyte ID**	**Method ID**
pH	TX	1900	10198400

Method EPA 9056

Analyte	**AB**	**Analyte ID**	**Method ID**
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Sulfate	TX	2000	10199209

Method SM 2320 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Alkalinity as CaCO3	TX	1505	20045618

Method SM 2510 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Conductivity	TX	1610	20048617

Method SSA/ASA Part 3:14

Analyte	**AB**	**Analyte ID**	**Method ID**
Conductivity	TX	1610	60049505

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704211-17-19

DHL Analytical, Inc.

Expiration Date: 4/30/2018

2300 Double Creek Drive
Round Rock, TX 78664-3801

Issue Date: 5/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Method TCEQ 1005

Analyte	AB	Analyte ID	Method ID
Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Air & Emissions***

Method ASTM D1946

Analyte	AB	Analyte ID	Method ID
Carbon dioxide	TX	3755	30024465
Carbon monoxide	TX	3780	30024465
Ethane	TX	4747	30024465
Hydrogen	TX	10321	30024465
Methane	TX	4926	30024465
Nitrogen	TX	1843	30024465
Oxygen	TX	3895	30024465

Method EPA RM 18

Analyte	AB	Analyte ID	Method ID
1,3-Butadiene	TX	9318	10246636
1-Propene (Propylene)	TX	4836	10246636
Benzene	TX	4375	10246636
Butene (all isomers)	TX	10326	10246636
Ethane	TX	4747	10246636
Ethene	TX	4752	10246636
Ethylbenzene	TX	4765	10246636
Methane	TX	4926	10246636
n-Butane	TX	5007	10246636
n-Hexane	TX	4855	10246636
n-Pentane	TX	5028	10246636
n-Propane	TX	5029	10246636
Toluene	TX	5140	10246636
Xylene (total)	TX	5260	10246636

Method EPA TO-14A

Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10248609
1,1,2,2-Tetrachloroethane	TX	5110	10248609
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10248609
1,1,2-Trichloroethane	TX	5165	10248609

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Air & Emissions***

1,1-Dichloroethane	TX	4630	10248609
1,1-Dichloroethylene	TX	4640	10248609
1,2,4-Trichlorobenzene	TX	5155	10248609
1,2,4-Trimethylbenzene	TX	5210	10248609
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10248609
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	TX	4695	10248609
1,2-Dichlorobenzene	TX	4610	10248609
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10248609
1,2-Dichloropropane	TX	4655	10248609
1,3,5-Trimethylbenzene	TX	5215	10248609
1,3-Dichlorobenzene	TX	4615	10248609
1,4-Dichlorobenzene	TX	4620	10248609
Benzene	TX	4375	10248609
Benzyl chloride	TX	5635	10248609
Carbon tetrachloride	TX	4455	10248609
Chlorobenzene	TX	4475	10248609
Chloroethane (Ethyl chloride)	TX	4485	10248609
Chloroform	TX	4505	10248609
cis-1,2-Dichloroethylene	TX	4645	10248609
cis-1,3-Dichloropropene	TX	4680	10248609
Dichlorodifluoromethane (Freon-12)	TX	4625	10248609
Ethylbenzene	TX	4765	10248609
Hexachlorobutadiene	TX	4835	10248609
Methyl bromide (Bromomethane)	TX	4950	10248609
Methyl chloride (Chloromethane)	TX	4960	10248609
Methylene chloride (Dichloromethane)	TX	4975	10248609
Styrene	TX	5100	10248609
Tetrachloroethylene (Perchloroethylene)	TX	5115	10248609
Toluene	TX	5140	10248609
trans-1,2-Dichloroethylene	TX	4700	10248609

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Air & Emissions***

trans-1,3-Dichloropropylene	TX	4685	10248609
Trichloroethene (Trichloroethylene)	TX	5170	10248609
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10248609
Vinyl chloride	TX	5235	10248609
Xylene (total)	TX	5260	10248609

Method EPA TO-15

Analyte	**AB**	**Analyte ID**	**Method ID**
1,1,1-Trichloroethane	TX	5160	10248803
1,1,2,2-Tetrachloroethane	TX	5110	10248803
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10248803
1,1,2-Trichloroethane	TX	5165	10248803
1,1-Dichloroethane	TX	4630	10248803
1,1-Dichloroethylene	TX	4640	10248803
1,2,3-Trimethylbenzene	TX	5182	10248803
1,2,4-Trichlorobenzene	TX	5155	10248803
1,2,4-Trimethylbenzene	TX	5210	10248803
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10248803
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	TX	4695	10248803
1,2-Dichlorobenzene	TX	4610	10248803
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10248803
1,2-Dichloropropane	TX	4655	10248803
1,3,5-Trimethylbenzene	TX	5215	10248803
1,3-Butadiene	TX	9318	10248803
1,3-Dichlorobenzene	TX	4615	10248803
1,4-Dichlorobenzene	TX	4620	10248803
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10248803
1-Butene	TX	4917	10248803
1-Pentene	TX	4833	10248803
1-Propene (Propylene)	TX	4836	10248803
2,2,4-Trimethylpentane (Isooctane)	TX	5220	10248803

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Air & Emissions***

2,2-Dimethylbutane	TX	4666	10248803
2,3,4-Trimethylpentane	TX	4667	10248803
2,3-Dimethylbutane	TX	4669	10248803
2,3-Dimethylpentane	TX	4671	10248803
2,4-Dimethylpentane	TX	4672	10248803
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10248803
2-Ethyltoluene	TX	4538	10248803
2-Methylbutadiene (Isoprene)	TX	4937	10248803
2-Methylbutane (Isopentane)	TX	4938	10248803
2-Methylheptane	TX	4939	10248803
2-Methylhexane	TX	10235	10248803
2-Methylpentane (Isohexane)	TX	4941	10248803
2-methylpropane (Isobutane)	TX	4942	10248803
3-Ethyltoluene	TX	4531	10248803
3-Methylheptane	TX	4532	10248803
3-Methylhexane	TX	4533	10248803
3-Methylpentane	TX	4534	10248803
4-Ethyltoluene	TX	4542	10248803
Benzene	TX	4375	10248803
Benzyl chloride	TX	5635	10248803
Bromodichloromethane	TX	4395	10248803
Bromoform	TX	4400	10248803
Carbon tetrachloride	TX	4455	10248803
Chlorobenzene	TX	4475	10248803
Chlorodibromomethane	TX	4575	10248803
Chloroethane (Ethyl chloride)	TX	4485	10248803
Chloroform	TX	4505	10248803
cis-1,2-Dichloroethylene	TX	4645	10248803
cis-1,3-Dichloropropene	TX	4680	10248803
cis-2-Butene	TX	4602	10248803

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Air & Emissions***

cis-2-pentene	TX	4603	10248803
Cyclohexane	TX	4555	10248803
Cyclopentane	TX	4562	10248803
Dichlorodifluoromethane (Freon-12)	TX	4625	10248803
Ethylbenzene	TX	4765	10248803
Hexachlorobutadiene	TX	4835	10248803
Isopropylbenzene (Cumene)	TX	4900	10248803
m+p-xylene	TX	5240	10248803
m-Diethylbenzene	TX	10252	10248803
Methyl bromide (Bromomethane)	TX	4950	10248803
Methyl chloride (Chloromethane)	TX	4960	10248803
Methyl isobutyl ketone (Hexone) (MIBK)	TX	4985	10248803
Methyl methacrylate	TX	4990	10248803
Methyl tert-butyl ether (MTBE)	TX	5000	10248803
Methylcyclohexane	TX	4965	10248803
Methylcyclopentane	TX	4966	10248803
Methylene chloride (Dichloromethane)	TX	4975	10248803
n-Butane	TX	5007	10248803
n-Decane	TX	5875	10248803
n-Heptane	TX	4825	10248803
n-Hexane	TX	4855	10248803
n-Nonane	TX	5026	10248803
n-Octane	TX	5027	10248803
n-Pentane	TX	5028	10248803
n-Propane	TX	5029	10248803
n-Propylbenzene	TX	5090	10248803
n-Undecane	TX	10261	10248803
o-Xylene	TX	5250	10248803
p-Diethylbenzene	TX	10262	10248803
Styrene	TX	5100	10248803

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Air & Emissions***

Tetrachloroethylene (Perchloroethylene)	TX	5115	10248803
Toluene	TX	5140	10248803
trans-1,2-Dichloroethylene	TX	4700	10248803
trans-1,3-Dichloropropylene	TX	4685	10248803
trans-2-Butene	TX	4607	10248803
trans-2-pentene	TX	4608	10248803
Trichloroethene (Trichloroethylene)	TX	5170	10248803
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10248803
Vinyl acetate	TX	5225	10248803
Vinyl chloride	TX	5235	10248803
Xylene (total)	TX	5260	10248803

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Biological Tissues***

Method EPA 6010

Analyte	AB	Analyte ID	Method ID
Antimony	TX	1005	10155803
Arsenic	TX	1010	10155803
Beryllium	TX	1020	10155803
Cadmium	TX	1030	10155803
Chromium	TX	1040	10155803
Copper	TX	1055	10155803
Lead	TX	1075	10155803
Nickel	TX	1105	10155803
Selenium	TX	1140	10155803
Silver	TX	1150	10155803
Thallium	TX	1165	10155803
Zinc	TX	1190	10155803

Method EPA 7471

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166402

Method EPA 8081

Analyte	AB	Analyte ID	Method ID
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dieldrin	TX	7470	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Biological Tissues***

Method EPA 8082

Analyte	AB	Analyte ID	Method ID
Aroclor-1016 (PCB-1016)	TX	8880	10179201
Aroclor-1221 (PCB-1221)	TX	8885	10179201
Aroclor-1232 (PCB-1232)	TX	8890	10179201
Aroclor-1242 (PCB-1242)	TX	8895	10179201
Aroclor-1248 (PCB-1248)	TX	8900	10179201
Aroclor-1254 (PCB-1254)	TX	8905	10179201
Aroclor-1260 (PCB-1260)	TX	8910	10179201
PCBs (total)	TX	8870	10179201

Method EPA 8270

Analyte	AB	Analyte ID	Method ID
Benzo(a)anthracene	TX	5575	10186002
Benzo(a)pyrene	TX	5580	10186002
Chrysene	TX	5855	10186002
Hexachlorobenzene	TX	6275	10186002
Hexachlorobutadiene	TX	4835	10186002
Hexachloroethane	TX	4840	10186002
Pentachlorophenol	TX	6605	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

Method EPA 120.1

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10006403

Method EPA 130.2

Analyte	AB	Analyte ID	Method ID
Hardness	TX	1750	10007202

Method EPA 160.1

Analyte	AB	Analyte ID	Method ID
Residue-filterable (TDS)	TX	1955	10009208

Method EPA 160.2

Analyte	AB	Analyte ID	Method ID
Residue-nonfilterable (TSS)	TX	1960	10009606

Method EPA 200.7

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10013806
Antimony	TX	1005	10013806
Arsenic	TX	1010	10013806
Barium	TX	1015	10013806
Beryllium	TX	1020	10013806
Boron	TX	1025	10013806
Cadmium	TX	1030	10013806
Chromium	TX	1040	10013806
Cobalt	TX	1050	10013806
Copper	TX	1055	10013806
Iron	TX	1070	10013806
Lead	TX	1075	10013806
Lithium	TX	1080	10013806
Magnesium	TX	1085	10013806
Manganese	TX	1090	10013806
Molybdenum	TX	1100	10013806
Nickel	TX	1105	10013806

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

Phosphorus	TX	1910	10013806
Potassium	TX	1125	10013806
Selenium	TX	1140	10013806
Silica as SiO2	TX	1990	10013806
Silver	TX	1150	10013806
Sodium	TX	1155	10013806
Strontium	TX	1160	10013806
Thallium	TX	1165	10013806
Tin	TX	1175	10013806
Titanium	TX	1180	10013806
Vanadium	TX	1185	10013806
Zinc	TX	1190	10013806

Method EPA 200.8

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10014605
Antimony	TX	1005	10014605
Arsenic	TX	1010	10014605
Barium	TX	1015	10014605
Beryllium	TX	1020	10014605
Cadmium	TX	1030	10014605
Chromium	TX	1040	10014605
Copper	TX	1055	10014605
Lead	TX	1075	10014605
Manganese	TX	1090	10014605
Nickel	TX	1105	10014605
Selenium	TX	1140	10014605
Silver	TX	1150	10014605
Thallium	TX	1165	10014605
Zinc	TX	1190	10014605

Method EPA 245.1

Analyte	**AB**	**Analyte ID**	**Method ID**

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

Mercury	TX	1095	10036609

Method EPA 300.0

Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrite as N	TX	1840	10053006
Sulfate	TX	2000	10053006

Method EPA 335.1

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001

Method EPA 335.2

Analyte	AB	Analyte ID	Method ID
Total Cyanide	TX	1635	10060409

Method EPA 340.2

Analyte	AB	Analyte ID	Method ID
Fluoride	TX	1730	10062201

Method EPA 504.1

Analyte	AB	Analyte ID	Method ID
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10082801
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10082801

Method EPA 524.2

Analyte	AB	Analyte ID	Method ID
1,1,1-Trichloroethane	TX	5160	10089006
1,1,2-Trichloroethane	TX	5165	10089006
1,1-Dichloroethylene	TX	4640	10089006
1,2,4-Trichlorobenzene	TX	5155	10089006
1,2-Dichlorobenzene	TX	4610	10089006
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10089006
1,2-Dichloropropane	TX	4655	10089006

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

1,4-Dichlorobenzene	TX	4620	10089006
Benzene	TX	4375	10089006
Carbon tetrachloride	TX	4455	10089006
Chlorobenzene	TX	4475	10089006
cis-1,2-Dichloroethylene	TX	4645	10089006
Ethylbenzene	TX	4765	10089006
m+p-xylene	TX	5240	10089006
Methylene chloride (Dichloromethane)	TX	4975	10089006
o-Xylene	TX	5250	10089006
Styrene	TX	5100	10089006
Tetrachloroethylene (Perchloroethylene)	TX	5115	10089006
Toluene	TX	5140	10089006
Total trihalomethanes	TX	5205	10089006
trans-1,2-Dichloroethylene	TX	4700	10089006
Trichloroethene (Trichloroethylene)	TX	5170	10089006
Vinyl chloride	TX	5235	10089006
Xylene (total)	TX	5260	10089006

Method EPA 552.2

Analyte	**AB**	**Analyte ID**	**Method ID**
Total haloacetic acids	TX	9414	10095804

Method SM 2340 C

Analyte	**AB**	**Analyte ID**	**Method ID**
Total hardness as CaCO3	TX	1755	20047001

Method SM 2510 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Conductivity	TX	1610	20048004

Method SM 2540 C

Analyte	**AB**	**Analyte ID**	**Method ID**
Residue-filterable (TDS)	TX	1955	20049803

Method SM 2540 D

Analyte	**AB**	**Analyte ID**	**Method ID**

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

Residue-nonfilterable (TSS)	TX	1960	20004802

Method SM 4500-CN^- C,E

Analyte	AB	Analyte ID	Method ID
Total Cyanide	TX	1635	20092404

Method SM 4500-CN^- C,G

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	20093203

Method SM 4500-F^- C

Analyte	AB	Analyte ID	Method ID
Fluoride	TX	1730	20101808

Method SM 4500-$NO2^-$ B

Analyte	AB	Analyte ID	Method ID
Nitrite as N	TX	1840	20024004

Method SM 9215 B

Analyte	AB	Analyte ID	Method ID
Heterotrophic plate count	TX	2555	20180001

Method SM 9221 C / E (A-1 Medium)

Analyte	AB	Analyte ID	Method ID
Fecal coliforms (enumeration)	TX	2530	20196605

Method SM 9222 B (Endo Media)

Analyte	AB	Analyte ID	Method ID
Total coliforms (enumeration)	TX	2500	20207403

Method SM 9222 B / G (NA-MUG)

Analyte	AB	Analyte ID	Method ID
Escherichia coli (enumeration)	TX	2525	20202408

Method SM 9222 D (MFC Medium)

Analyte	AB	Analyte ID	Method ID
Fecal coliforms (enumeration)	TX	2530	20210008

Method SM 9223-IDEXX Laboratories Colilert® Test

Analyte	AB	Analyte ID	Method ID
Total coliforms and E. coli (P/A)	TX	2502	20212413

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Drinking Water***

Method SM 9223-IDEXX Laboratories
Colilert® Quanti-Tray Test

Analyte	AB	Analyte ID	Method ID
Escherichia coli (enumeration)	TX	2525	20211603
Total coliforms (enumeration)	TX	2500	20211603

Method SM 9223-IDEXX Laboratories
Colilert®-18 Test

Analyte	AB	Analyte ID	Method ID
Total coliforms and E. coli (P/A)	TX	2502	20214602

Method SM 9223-IDEXX Laboratories
Colilert®-18 Quanti-Tray Test

Analyte	AB	Analyte ID	Method ID
Escherichia coli (enumeration)	TX	2525	20211603
Total coliforms (enumeration)	TX	2500	20211603

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method ASTM D6503

Analyte	AB	Analyte ID	Method ID
Enterococci	TX	2520	30032407

Method EPA 1010

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606

Method EPA 110.2

Analyte	AB	Analyte ID	Method ID
Color	TX	1605	10005400

Method EPA 120.1

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	10006403

Method EPA 130.2

Analyte	AB	Analyte ID	Method ID
Total hardness as CaCO3	TX	1755	10007202

Method EPA 1311

Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806

Method EPA 1312

Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003

Method EPA 150.1

Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10008409

Method EPA 160.1

Analyte	AB	Analyte ID	Method ID
Residue-filterable (TDS)	TX	1955	10009208

Method EPA 160.2

Analyte	AB	Analyte ID	Method ID
Residue-nonfilterable (TSS)	TX	1960	10009606

Method EPA 160.3

Analyte	AB	Analyte ID	Method ID

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Residue-total (total solids)	TX	1950	10010001

Method EPA 160.4

Analyte	**AB**	**Analyte ID**	**Method ID**
Residue-volatile	TX	1970	10010409

Method EPA 1664

Analyte	**AB**	**Analyte ID**	**Method ID**
n-Hexane Extractable Material (HEM) (O&G)	TX	1803	10127807
Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)	TX	10220	10127807

Method EPA 180.1

Analyte	**AB**	**Analyte ID**	**Method ID**
Turbidity	TX	2055	10011606

Method EPA 200.7

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10013806
Antimony	TX	1005	10013806
Arsenic	TX	1010	10013806
Barium	TX	1015	10013806
Beryllium	TX	1020	10013806
Boron	TX	1025	10013806
Cadmium	TX	1030	10013806
Calcium	TX	1035	10013806
Chromium	TX	1040	10013806
Cobalt	TX	1050	10013806
Copper	TX	1055	10013806
Iron	TX	1070	10013806
Lead	TX	1075	10013806
Lithium	TX	1080	10013806
Magnesium	TX	1085	10013806
Manganese	TX	1090	10013806
Molybdenum	TX	1100	10013806
Nickel	TX	1105	10013806

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Phosphorus	TX	1910	10013806
Potassium	TX	1125	10013806
Selenium	TX	1140	10013806
Silica as SiO2	TX	1990	10013806
Silver	TX	1150	10013806
Sodium	TX	1155	10013806
Strontium	TX	1160	10013806
Thallium	TX	1165	10013806
Tin	TX	1175	10013806
Titanium	TX	1180	10013806
Vanadium	TX	1185	10013806
Zinc	TX	1190	10013806

Method EPA 200.8

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10014605
Antimony	TX	1005	10014605
Arsenic	TX	1010	10014605
Barium	TX	1015	10014605
Beryllium	TX	1020	10014605
Cadmium	TX	1030	10014605
Chromium	TX	1040	10014605
Cobalt	TX	1050	10014605
Copper	TX	1055	10014605
Iron	TX	1070	10014605
Lead	TX	1075	10014605
Manganese	TX	1090	10014605
Molybdenum	TX	1100	10014605
Nickel	TX	1105	10014605
Selenium	TX	1140	10014605
Silver	TX	1150	10014605

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Thallium	TX	1165	10014605
Thorium	TX	1170	10014605
Uranium	TX	3035	10014605
Vanadium	TX	1185	10014605
Zinc	TX	1190	10014605

Method EPA 245.1

Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10036609

Method EPA 300.0

Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Orthophosphate as P	TX	1870	10053006
Sulfate	TX	2000	10053006

Method EPA 305.1

Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO3	TX	1500	10054203

Method EPA 310.1

Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO3	TX	1505	10054805

Method EPA 330.5

Analyte	AB	Analyte ID	Method ID
Total residual chlorine	TX	1940	10059606

Method EPA 335.1

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10060001

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method EPA 335.2

Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	10060205

Method EPA 340.2

Analyte	AB	Analyte ID	Method ID
Fluoride	TX	1730	10062201

Method EPA 350.3

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10064401

Method EPA 351.4

Analyte	AB	Analyte ID	Method ID
Kjeldahl Nitrogen (Total Kjeldahl Nitrogen-TKN)	TX	1790	10066203

Method EPA 353.2

Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	10067400

Method EPA 353.3

Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	10068005

Method EPA 354.1

Analyte	AB	Analyte ID	Method ID
Nitrite as N	TX	1840	10068607

Method EPA 360.1

Analyte	AB	Analyte ID	Method ID
Oxygen, dissolved	TX	1880	10069008

Method EPA 365.2

Analyte	AB	Analyte ID	Method ID
Orthophosphate as P	TX	1870	10070403
Phosphorus	TX	1910	10070403

Method EPA 370.1

Analyte	AB	Analyte ID	Method ID
Silica as SiO2	TX	1990	10072001

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method EPA 376.1

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10074201

Method EPA 376.2

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	10074609

Method EPA 377.1

Analyte	AB	Analyte ID	Method ID
Sulfite	TX	2015	10075000

Method EPA 405.1

Analyte	AB	Analyte ID	Method ID
Biochemical oxygen demand (BOD)	TX	1530	10075602
Carbonaceous BOD, CBOD	TX	1555	10075602

Method EPA 410.4

Analyte	AB	Analyte ID	Method ID
Chemical oxygen demand (COD)	TX	1565	10077200

Method EPA 415.1

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10078407

Method EPA 420.1

Analyte	AB	Analyte ID	Method ID
Total phenolics	TX	1905	10079400

Method EPA 524.2

Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10089006
Chloroform	TX	4505	10089006

Method EPA 6010

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155803
Antimony	TX	1005	10155803
Arsenic	TX	1010	10155803

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Barium	TX	1015	10155803
Beryllium	TX	1020	10155803
Boron	TX	1025	10155803
Cadmium	TX	1030	10155803
Calcium	TX	1035	10155803
Chromium	TX	1040	10155803
Cobalt	TX	1050	10155803
Copper	TX	1055	10155803
Iron	TX	1070	10155803
Lead	TX	1075	10155803
Lithium	TX	1080	10155803
Magnesium	TX	1085	10155803
Manganese	TX	1090	10155803
Molybdenum	TX	1100	10155803
Nickel	TX	1105	10155803
Potassium	TX	1125	10155803
Selenium	TX	1140	10155803
Silica as SiO2	TX	1990	10155803
Silver	TX	1150	10155803
Sodium	TX	1155	10155803
Strontium	TX	1160	10155803
Thallium	TX	1165	10155803
Tin	TX	1175	10155803
Titanium	TX	1180	10155803
Vanadium	TX	1185	10155803
Zinc	TX	1190	10155803

Method EPA 602

Analyte	**AB**	**Analyte ID**	**Method ID**
Benzene	TX	4375	10102202
Ethylbenzene	TX	4765	10102202

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

m+p-xylene	TX	5240	10102202
Methyl tert-butyl ether (MTBE)	TX	5000	10102202
o-Xylene	TX	5250	10102202
Toluene	TX	5140	10102202
Xylene (total)	TX	5260	10102202

Method EPA 6020

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10156204
Antimony	TX	1005	10156204
Arsenic	TX	1010	10156204
Barium	TX	1015	10156204
Beryllium	TX	1020	10156204
Cadmium	TX	1030	10156204
Chromium	TX	1040	10156204
Cobalt	TX	1050	10156204
Copper	TX	1055	10156204
Iron	TX	1070	10156204
Lead	TX	1075	10156204
Manganese	TX	1090	10156204
Molybdenum	TX	1100	10156204
Nickel	TX	1105	10156204
Selenium	TX	1140	10156204
Silver	TX	1150	10156204
Thallium	TX	1165	10156204
Vanadium	TX	1185	10156204
Zinc	TX	1190	10156204

Method EPA 608

Analyte	**AB**	**Analyte ID**	**Method ID**
4,4'-DDD	TX	7355	10103603
4,4'-DDE	TX	7360	10103603
4,4'-DDT	TX	7365	10103603

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Aldrin	TX	7025	10103603
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10103603
alpha-Chlordane	TX	7240	10103603
Aroclor-1016 (PCB-1016)	TX	8880	10103603
Aroclor-1221 (PCB-1221)	TX	8885	10103603
Aroclor-1232 (PCB-1232)	TX	8890	10103603
Aroclor-1242 (PCB-1242)	TX	8895	10103603
Aroclor-1248 (PCB-1248)	TX	8900	10103603
Aroclor-1254 (PCB-1254)	TX	8905	10103603
Aroclor-1260 (PCB-1260)	TX	8910	10103603
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10103603
Chlordane (tech.)	TX	7250	10103603
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10103603
Dieldrin	TX	7470	10103603
Endosulfan I	TX	7510	10103603
Endosulfan II	TX	7515	10103603
Endosulfan sulfate	TX	7520	10103603
Endrin	TX	7540	10103603
Endrin aldehyde	TX	7530	10103603
Endrin ketone	TX	7535	10103603
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10103603
gamma-Chlordane	TX	7245	10103603
Heptachlor	TX	7685	10103603
Heptachlor epoxide	TX	7690	10103603
Methoxychlor	TX	7810	10103603
Toxaphene (Chlorinated camphene)	TX	8250	10103603

Method EPA 610

Analyte	**AB**	**Analyte ID**	**Method ID**
Acenaphthene	TX	5500	10104402
Acenaphthylene	TX	5505	10104402

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Anthracene	TX	5555	10104402
Benzo(a)anthracene	TX	5575	10104402
Benzo(a)pyrene	TX	5580	10104402
Benzo(b)fluoranthene	TX	5585	10104402
Benzo(g,h,i)perylene	TX	5590	10104402
Benzo(k)fluoranthene	TX	5600	10104402
Chrysene	TX	5855	10104402
Dibenz(a,h) anthracene	TX	5895	10104402
Fluoranthene	TX	6265	10104402
Fluorene	TX	6270	10104402
Indeno(1,2,3-cd) pyrene	TX	6315	10104402
Naphthalene	TX	5005	10104402
Phenanthrene	TX	6615	10104402
Pyrene	TX	6665	10104402

Method EPA 615

Analyte	**AB**	**Analyte ID**	**Method ID**
2,4,5-T	TX	8655	10105609
2,4-D	TX	8545	10105609
2,4-DB	TX	8560	10105609
Dalapon	TX	8555	10105609
Dicamba	TX	8595	10105609
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10105609
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10105609
MCPA	TX	7775	10105609
Silvex (2,4,5-TP)	TX	8650	10105609

Method EPA 624

Analyte	**AB**	**Analyte ID**	**Method ID**
1,1,1-Trichloroethane	TX	5160	10107207
1,1,2,2-Tetrachloroethane	TX	5110	10107207
1,1,2-Trichloroethane	TX	5165	10107207
1,1-Dichloroethane	TX	4630	10107207

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

1,1-Dichloroethylene	TX	4640	10107207
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10107207
1,2-Dichlorobenzene	TX	4610	10107207
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10107207
1,2-Dichloropropane	TX	4655	10107207
1,3-Dichlorobenzene	TX	4615	10107207
1,4-Dichlorobenzene	TX	4620	10107207
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10107207
2-Chloroethyl vinyl ether	TX	4500	10107207
Acetone (2-Propanone)	TX	4315	10107207
Acrolein (Propenal)	TX	4325	10107207
Acrylonitrile	TX	4340	10107207
Benzene	TX	4375	10107207
Bromodichloromethane	TX	4395	10107207
Bromoform	TX	4400	10107207
Carbon tetrachloride	TX	4455	10107207
Chlorobenzene	TX	4475	10107207
Chlorodibromomethane	TX	4575	10107207
Chloroethane (Ethyl chloride)	TX	4485	10107207
Chloroform	TX	4505	10107207
cis-1,2-Dichloroethylene	TX	4645	10107207
cis-1,3-Dichloropropene	TX	4680	10107207
Ethylbenzene	TX	4765	10107207
m+p-xylene	TX	5240	10107207
Methyl bromide (Bromomethane)	TX	4950	10107207
Methyl chloride (Chloromethane)	TX	4960	10107207
Methyl tert-butyl ether (MTBE)	TX	5000	10107207
Methylene chloride (Dichloromethane)	TX	4975	10107207
Naphthalene	TX	5005	10107207
o-Xylene	TX	5250	10107207

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Tetrachloroethylene (Perchloroethylene)	TX	5115	10107207
Toluene	TX	5140	10107207
trans-1,2-Dichloroethylene	TX	4700	10107207
trans-1,3-Dichloropropylene	TX	4685	10107207
Trichloroethene (Trichloroethylene)	TX	5170	10107207
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10107207
Vinyl chloride	TX	5235	10107207
Xylene (total)	TX	5260	10107207

Method EPA 625

Analyte	**AB**	**Analyte ID**	**Method ID**
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10107401
1,2,4,5-Tetrachlorobenzene	TX	6715	10107401
1,2,4-Trichlorobenzene	TX	5155	10107401
1,2-Dichlorobenzene	TX	4610	10107401
1,2-Diphenylhydrazine	TX	6220	10107401
1,3-Dichlorobenzene	TX	4615	10107401
1,4-Dichlorobenzene	TX	4620	10107401
2,3,4,6-Tetrachlorophenol	TX	6735	10107401
2,4,5-Trichlorophenol	TX	6835	10107401
2,4,6-Trichlorophenol	TX	6840	10107401
2,4-Dichlorophenol	TX	6000	10107401
2,4-Dimethylphenol	TX	6130	10107401
2,4-Dinitrophenol	TX	6175	10107401
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10107401
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10107401
2-Chloronaphthalene	TX	5795	10107401
2-Chlorophenol	TX	5800	10107401
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10107401
2-Methylphenol (o-Cresol)	TX	6400	10107401
2-Nitrophenol	TX	6490	10107401

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

3,3'-Dichlorobenzidine	TX	5945	10107401
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10107401
4-Chloro-3-methylphenol	TX	5700	10107401
4-Chlorophenyl phenylether	TX	5825	10107401
4-Nitrophenol	TX	6500	10107401
Acenaphthene	TX	5500	10107401
Acenaphthylene	TX	5505	10107401
Anthracene	TX	5555	10107401
Benzidine	TX	5595	10107401
Benzo(a)anthracene	TX	5575	10107401
Benzo(a)pyrene	TX	5580	10107401
Benzo(b)fluoranthene	TX	5585	10107401
Benzo(g,h,i)perylene	TX	5590	10107401
Benzo(k)fluoranthene	TX	5600	10107401
bis(2-Chloroethoxy)methane	TX	5760	10107401
bis(2-Chloroethyl) ether	TX	5765	10107401
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10107401
Butyl benzyl phthalate	TX	5670	10107401
Chrysene	TX	5855	10107401
Dibenz(a,h) anthracene	TX	5895	10107401
Diethyl phthalate	TX	6070	10107401
Dimethyl phthalate	TX	6135	10107401
Di-n-butyl phthalate	TX	5925	10107401
Di-n-octyl phthalate	TX	6200	10107401
Fluoranthene	TX	6265	10107401
Fluorene	TX	6270	10107401
Hexachlorobenzene	TX	6275	10107401
Hexachlorobutadiene	TX	4835	10107401
Hexachlorocyclopentadiene	TX	6285	10107401
Hexachloroethane	TX	4840	10107401

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Indeno(1,2,3-cd) pyrene	TX	6315	10107401
Isophorone	TX	6320	10107401
Naphthalene	TX	5005	10107401
Nitrobenzene	TX	5015	10107401
n-Nitrosodiethylamine	TX	6525	10107401
n-Nitrosodimethylamine	TX	6530	10107401
n-Nitrosodi-n-butylamine	TX	5025	10107401
n-Nitrosodi-n-propylamine	TX	6545	10107401
n-Nitrosodiphenylamine	TX	6535	10107401
Pentachlorobenzene	TX	6590	10107401
Pentachlorophenol	TX	6605	10107401
Phenanthrene	TX	6615	10107401
Phenol	TX	6625	10107401
Pyrene	TX	6665	10107401
Pyridine	TX	5095	10107401

Method EPA 632

Analyte	**AB**	**Analyte ID**	**Method ID**
Carbaryl (Sevin)	TX	7195	10108608

Method EPA 7196

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	10162400

Method EPA 7470

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10165603

Method EPA 8015

Analyte	**AB**	**Analyte ID**	**Method ID**
Acetone (2-Propanone)	TX	4315	10173203
Allyl alcohol	TX	4350	10173203
Diesel range organics (DRO)	TX	9369	10173203
Ethanol	TX	4750	10173203
Ethylene glycol	TX	4785	10173203

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Ethylene oxide	TX	4795	10173203
Gasoline range organics (GRO)	TX	9408	10173203
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173203
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173203
Methanol	TX	4930	10173203
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173203
n-Propanol (1-Propanol)	TX	5055	10173203
Propylene Glycol	TX	6657	10173203
tert-Butyl alcohol	TX	4420	10173203

Method EPA 8021

Analyte	**AB**	**Analyte ID**	**Method ID**
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808

Method EPA 8081

Analyte	**AB**	**Analyte ID**	**Method ID**
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
Chlordane (tech.)	TX	7250	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606
Dicofol (Kelthane)	TX	7460	10178606
Dieldrin	TX	7470	10178606

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Hexachlorobenzene	TX	6275	10178606
Methoxychlor	TX	7810	10178606
Mirex	TX	7870	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	**AB**	**Analyte ID**	**Method ID**
Aroclor-1016 (PCB-1016)	TX	8880	10179201
Aroclor-1221 (PCB-1221)	TX	8885	10179201
Aroclor-1232 (PCB-1232)	TX	8890	10179201
Aroclor-1242 (PCB-1242)	TX	8895	10179201
Aroclor-1248 (PCB-1248)	TX	8900	10179201
Aroclor-1254 (PCB-1254)	TX	8905	10179201
Aroclor-1260 (PCB-1260)	TX	8910	10179201
PCBs (total)	TX	8870	10179201

Method EPA 8141

Analyte	**AB**	**Analyte ID**	**Method ID**
Azinphos-methyl (Guthion)	TX	7075	10182204
Chlorpyrifos (Dursban)	TX	7300	10182204
Demeton	TX	7390	10182204
Demeton-o	TX	7395	10182204
Diazinon	TX	7410	10182204

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Dimethoate	TX	7475	10182204
Disulfoton	TX	8625	10182204
EPN (Phosphonothioic acid, phenyl-, O-ethyl O-(p-nitrophenyl) ester)	TX	7550	10182204
Ethion	TX	7565	10182204
Ethoprop	TX	7570	10182204
Famphur	TX	7580	10182204
Malathion	TX	7770	10182204
Methyl parathion (Parathion, methyl)	TX	7825	10182204
Monocrotophos	TX	7880	10182204
Parathion, ethyl	TX	7955	10182204
Phorate	TX	7985	10182204
Phosmet (Imidan)	TX	8000	10182204
Terbufos	TX	8185	10182204

Method EPA 8151

Analyte	**AB**	**Analyte ID**	**Method ID**
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Pentachlorophenol	TX	6605	10183207
Silvex (2,4,5-TP)	TX	8650	10183207

Method EPA 8260

Analyte	**AB**	**Analyte ID**	**Method ID**
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802
1,1,2,2-Tetrachloroethane	TX	5110	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	TX	5195	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
1-Chlorohexane	TX	4510	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802
2-Pentanone	TX	5045	10184802
3-Chloropropionitrile	TX	4530	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
cis-1,4-Dichloro-2-butene	TX	4600	10184802
Crotonaldehyde	TX	4545	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Diethyl ether	TX	4725	10184802
Di-isopropylether (DIPE)	TX	9375	10184802
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Ethylene oxide	TX	4795	10184802
Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)	TX	4770	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acetate	TX	4940	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylcyclohexane	TX	4965	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
Pentachloroethane	TX	5035	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
T-amylmethylether (TAME)	TX	4370	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
Total trihalomethanes	TX	5205	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802
Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	**AB**	**Analyte ID**	**Method ID**
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10186002
1,2,4,5-Tetrachlorobenzene	TX	6715	10186002
1,2,4-Trichlorobenzene	TX	5155	10186002
1,2-Dichlorobenzene	TX	4610	10186002
1,2-Diphenylhydrazine	TX	6220	10186002
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10186002
1,3-Dichlorobenzene	TX	4615	10186002
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10186002
1,4-Dichlorobenzene	TX	4620	10186002
1,4-Naphthoquinone	TX	6420	10186002
1-Chloronaphthalene	TX	5790	10186002
1-Naphthylamine	TX	6425	10186002
2,3,4,6-Tetrachlorophenol	TX	6735	10186002
2,4,5-Trichlorophenol	TX	6835	10186002
2,4,6-Trichlorophenol	TX	6840	10186002
2,4-Dichlorophenol	TX	6000	10186002
2,4-Dimethylphenol	TX	6130	10186002
2,4-Dinitrophenol	TX	6175	10186002
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10186002
2,6-Dichlorophenol	TX	6005	10186002
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

2-Acetylaminofluorene	TX	5515	10186002
2-Chloronaphthalene	TX	5795	10186002
2-Chlorophenol	TX	5800	10186002
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10186002
2-Methylnaphthalene	TX	6385	10186002
2-Methylphenol (o-Cresol)	TX	6400	10186002
2-Naphthylamine	TX	6430	10186002
2-Nitroaniline	TX	6460	10186002
2-Nitrophenol	TX	6490	10186002
2-Picoline (2-Methylpyridine)	TX	5050	10186002
3,3'-Dichlorobenzidine	TX	5945	10186002
3,3'-Dimethylbenzidine	TX	6120	10186002
3-Methylcholanthrene	TX	6355	10186002
3-Methylphenol (m-Cresol)	TX	6405	10186002
3-Nitroaniline	TX	6465	10186002
4,4'-Methylenebis(n,n-dimethylaniline)	TX	6370	10186002
4-Aminobiphenyl	TX	5540	10186002
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10186002
4-Chloro-1,3-phenylenediamine	TX	5850	10186002
4-Chloro-3-methylphenol	TX	5700	10186002
4-Chloroaniline	TX	5745	10186002
4-Chlorophenyl phenylether	TX	5825	10186002
4-Methylphenol (p-Cresol)	TX	6410	10186002
4-Nitroaniline	TX	6470	10186002
4-Nitrophenol	TX	6500	10186002
5-Nitro-o-toluidine	TX	6570	10186002
7,12-Dimethylbenz(a) anthracene	TX	6115	10186002
Acenaphthene	TX	5500	10186002
Acenaphthylene	TX	5505	10186002
Acetophenone	TX	5510	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Aniline	TX	5545	10186002
Anthracene	TX	5555	10186002
Aramite	TX	5560	10186002
Atrazine	TX	7065	10186002
Azobenzene	TX	5562	10186002
Benzenethiol (Thiophenol)	TX	6750	10186002
Benzidine	TX	5595	10186002
Benzo(a)anthracene	TX	5575	10186002
Benzo(a)pyrene	TX	5580	10186002
Benzo(b)fluoranthene	TX	5585	10186002
Benzo(g,h,i)perylene	TX	5590	10186002
Benzo(k)fluoranthene	TX	5600	10186002
Benzoic acid	TX	5610	10186002
Benzyl alcohol	TX	5630	10186002
Biphenyl	TX	5640	10186002
bis(2-Chloroethoxy)methane	TX	5760	10186002
bis(2-Chloroethyl) ether	TX	5765	10186002
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10186002
Butyl benzyl phthalate	TX	5670	10186002
Caprolactam	TX	7180	10186002
Carbazole	TX	5680	10186002
Chlorobenzilate	TX	7260	10186002
Chrysene	TX	5855	10186002
Dibenz(a,h) anthracene	TX	5895	10186002
Dibenz(a,j) acridine	TX	5900	10186002
Dibenzofuran	TX	5905	10186002
Diethyl phthalate	TX	6070	10186002
Dimethyl phthalate	TX	6135	10186002
Di-n-butyl phthalate	TX	5925	10186002
Di-n-octyl phthalate	TX	6200	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10186002
Diphenylamine	TX	6205	10186002
Ethyl methanesulfonate	TX	6260	10186002
Fluoranthene	TX	6265	10186002
Fluorene	TX	6270	10186002
Hexachlorobenzene	TX	6275	10186002
Hexachlorobutadiene	TX	4835	10186002
Hexachlorocyclopentadiene	TX	6285	10186002
Hexachloroethane	TX	4840	10186002
Hexachlorophene	TX	6290	10186002
Indeno(1,2,3-cd) pyrene	TX	6315	10186002
Isodrin	TX	7725	10186002
Isophorone	TX	6320	10186002
Isosafrole	TX	6325	10186002
Methapyrilene	TX	6345	10186002
Methyl methanesulfonate	TX	6375	10186002
Naphthalene	TX	5005	10186002
Nitrobenzene	TX	5015	10186002
n-Nitrosodiethylamine	TX	6525	10186002
n-Nitrosodimethylamine	TX	6530	10186002
n-Nitrosodi-n-butylamine	TX	5025	10186002
n-Nitrosodi-n-propylamine	TX	6545	10186002
n-Nitrosodiphenylamine	TX	6535	10186002
n-Nitrosomethylethylamine	TX	6550	10186002
n-Nitrosomorpholine	TX	6555	10186002
n-Nitrosopiperidine	TX	6560	10186002
n-Nitrosopyrrolidine	TX	6565	10186002
Pentachlorobenzene	TX	6590	10186002
Pentachloronitrobenzene (PCNB)	TX	6600	10186002
Pentachlorophenol	TX	6605	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Phenacetin	TX	6610	10186002
Phenanthrene	TX	6615	10186002
Phenol	TX	6625	10186002
Phorate	TX	7985	10186002
Pronamide (Kerb)	TX	6650	10186002
Pyrene	TX	6665	10186002
Pyridine	TX	5095	10186002
Quinoline	TX	6670	10186002
Safrole	TX	6685	10186002

Method EPA 8310

Analyte	**AB**	**Analyte ID**	**Method ID**
Acenaphthene	TX	5500	10187607
Acenaphthylene	TX	5505	10187607
Anthracene	TX	5555	10187607
Benzo(a)anthracene	TX	5575	10187607
Benzo(a)pyrene	TX	5580	10187607
Benzo(b)fluoranthene	TX	5585	10187607
Benzo(g,h,i)perylene	TX	5590	10187607
Benzo(k)fluoranthene	TX	5600	10187607
Chrysene	TX	5855	10187607
Dibenz(a,h) anthracene	TX	5895	10187607
Fluoranthene	TX	6265	10187607
Fluorene	TX	6270	10187607
Indeno(1,2,3-cd) pyrene	TX	6315	10187607
Naphthalene	TX	5005	10187607
Phenanthrene	TX	6615	10187607
Pyrene	TX	6665	10187607

Method EPA 8315

Analyte	**AB**	**Analyte ID**	**Method ID**
Acetaldehyde	TX	4300	10187801
Benzaldehyde	TX	5570	10187801

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Formaldehyde	TX	4815	10187801

Method EPA 8316

Analyte	AB	Analyte ID	Method ID
Acrolein (Propenal)	TX	4325	10188202
Acrylamide	TX	4330	10188202
Acrylonitrile	TX	4340	10188202

Method EPA 9014

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	10193803
Total Cyanide	TX	1635	10193803

Method EPA 9020

Analyte	AB	Analyte ID	Method ID
Total organic halides (TOX)	TX	2045	10194000

Method EPA 9040

Analyte	AB	Analyte ID	Method ID
pH	TX	1900	10196802

Method EPA 9056

Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209

Method EPA 9060

Analyte	AB	Analyte ID	Method ID
Total Organic Carbon (TOC)	TX	2040	10200201

Method EPA 9065

Analyte	AB	Analyte ID	Method ID

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Total phenolics	TX	1905	10200405

Method EPA 9213

Analyte	AB	Analyte ID	Method ID
Total Cyanide	TX	1635	10206209

Method EPA RSK 175

Analyte	AB	Analyte ID	Method ID
2-methylpropane (Isobutane)	TX	4942	10212905
Carbon dioxide	TX	3755	10212905
Ethane	TX	4747	10212905
Ethene	TX	4752	10212905
Methane	TX	4926	10212905
n-Butane	TX	5007	10212905
n-Propane	TX	5029	10212905

Method SM 2120 B

Analyte	AB	Analyte ID	Method ID
Color	TX	1605	20223807

Method SM 2130 B

Analyte	AB	Analyte ID	Method ID
Turbidity	TX	2055	20042200

Method SM 2310 B (4a)

Analyte	AB	Analyte ID	Method ID
Acidity, as CaCO3	TX	1500	20002806

Method SM 2320 B

Analyte	AB	Analyte ID	Method ID
Alkalinity as CaCO3	TX	1505	20045005

Method SM 2340 B

Analyte	AB	Analyte ID	Method ID
Total hardness as CaCO3	TX	1755	20046008

Method SM 2340 C

Analyte	AB	Analyte ID	Method ID
Total hardness as CaCO3	TX	1755	20047001

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Method SM 2510 B

Analyte	AB	Analyte ID	Method ID
Conductivity	TX	1610	20048004

Method SM 2540 B

Analyte	AB	Analyte ID	Method ID
Residue-total (total solids)	TX	1950	20004608

Method SM 2540 C

Analyte	AB	Analyte ID	Method ID
Residue-filterable (TDS)	TX	1955	20049803

Method SM 2540 D

Analyte	AB	Analyte ID	Method ID
Residue-nonfilterable (TSS)	TX	1960	20004802

Method SM 3500-Cr B

Analyte	AB	Analyte ID	Method ID
Chromium (VI)	TX	1045	20065809

Method SM 4500-Cl G

Analyte	AB	Analyte ID	Method ID
Total residual chlorine	TX	1940	20020604

Method SM 4500-CN^- C

Analyte	AB	Analyte ID	Method ID
Total cyanide	TX	1645	20020808

Method SM 4500-CN^- E

Analyte	AB	Analyte ID	Method ID
Total Cyanide	TX	1635	20021209

Method SM 4500-CN^- G

Analyte	AB	Analyte ID	Method ID
Amenable cyanide	TX	1510	20021607

Method SM 4500-F^- C

Analyte	AB	Analyte ID	Method ID
Fluoride	TX	1730	20101808

Method SM 4500-H+ B

Analyte	AB	Analyte ID	Method ID

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

pH	TX	1900	20104603

Method SM 4500-NH3 D

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	20108809
Kjeldahl Nitrogen (Total Kjeldahl Nitrogen-TKN)	TX	1790	20108809

Method SM 4500-$NO2^{-}$ B

Analyte	AB	Analyte ID	Method ID
Nitrite as N	TX	1840	20024004

Method SM 4500-NO3 E

Analyte	AB	Analyte ID	Method ID
Nitrate-nitrite	TX	1820	20114209

Method SM 4500-O G

Analyte	AB	Analyte ID	Method ID
Oxygen, dissolved	TX	1880	20025405

Method SM 4500-P E

Analyte	AB	Analyte ID	Method ID
Orthophosphate as P	TX	1870	20025803
Phosphorus	TX	1910	20025803

Method SM 4500-$S2^{-}$ D

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	20125400

Method SM 4500-$S2^{-}$ F

Analyte	AB	Analyte ID	Method ID
Sulfide	TX	2005	20126209

Method SM 4500-SiO2 D

Analyte	AB	Analyte ID	Method ID
Silica as SiO2	TX	1990	20127202

Method SM 4500-$SO3^{-}$ B

Analyte	AB	Analyte ID	Method ID
Sulfite	TX	2015	20026806

Method SM 5210 B

Analyte	AB	Analyte ID	Method ID

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Biochemical oxygen demand (BOD)	TX	1530	20027401
Carbonaceous BOD, CBOD	TX	1555	20027401

Method SM 5220 D

Analyte	**AB**	**Analyte ID**	**Method ID**
Chemical oxygen demand (COD)	TX	1565	20027809

Method SM 5310 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Total Organic Carbon (TOC)	TX	2040	20137206

Method SM 9215 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Heterotrophic plate count	TX	2555	20180001

Method SM 9221 C / 9221 E

Analyte	**AB**	**Analyte ID**	**Method ID**
Fecal coliforms (enumeration)	TX	2530	20195806

Method SM 9222 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Total coliforms (enumeration)	TX	2500	20198009

Method SM 9222 B / 9222 G

Analyte	**AB**	**Analyte ID**	**Method ID**
Escherichia coli (enumeration)	TX	2525	20201201

Method SM 9222 D

Analyte	**AB**	**Analyte ID**	**Method ID**
Fecal coliforms (enumeration)	TX	2530	20037405

Method SM 9223 B

Analyte	**AB**	**Analyte ID**	**Method ID**
Escherichia coli (enumeration)	TX	2525	20211205

Method SM 9230 C

Analyte	**AB**	**Analyte ID**	**Method ID**
Enterococci	TX	2520	20218002
Fecal streptococci	TX	2540	20218002

Method TCEQ 1005

Analyte	**AB**	**Analyte ID**	**Method ID**

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Non-Potable Water***

Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Method EPA 1010

Analyte	AB	Analyte ID	Method ID
Ignitability	TX	1780	10116606

Method EPA 1311

Analyte	AB	Analyte ID	Method ID
TCLP	TX	849	10118806

Method EPA 1312

Analyte	AB	Analyte ID	Method ID
SPLP	TX	850	10119003

Method EPA 300.0

Analyte	AB	Analyte ID	Method ID
Bromide	TX	1540	10053006
Chloride	TX	1575	10053006
Fluoride	TX	1730	10053006
Nitrate as N	TX	1810	10053006
Nitrate-nitrite	TX	1820	10053006
Nitrite as N	TX	1840	10053006
Orthophosphate as P	TX	1870	10053006
Sulfate	TX	2000	10053006

Method EPA 350.3

Analyte	AB	Analyte ID	Method ID
Ammonia as N	TX	1515	10064401

Method EPA 6010

Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155803
Antimony	TX	1005	10155803
Arsenic	TX	1010	10155803
Barium	TX	1015	10155803
Beryllium	TX	1020	10155803
Boron	TX	1025	10155803
Cadmium	TX	1030	10155803

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Calcium	TX	1035	10155803
Chromium	TX	1040	10155803
Cobalt	TX	1050	10155803
Copper	TX	1055	10155803
Iron	TX	1070	10155803
Lead	TX	1075	10155803
Lithium	TX	1080	10155803
Magnesium	TX	1085	10155803
Manganese	TX	1090	10155803
Molybdenum	TX	1100	10155803
Nickel	TX	1105	10155803
Phosphorus	TX	1910	10155803
Potassium	TX	1125	10155803
Selenium	TX	1140	10155803
Silica as SiO2	TX	1990	10155803
Silver	TX	1150	10155803
Sodium	TX	1155	10155803
Strontium	TX	1160	10155803
Thallium	TX	1165	10155803
Tin	TX	1175	10155803
Titanium	TX	1180	10155803
Vanadium	TX	1185	10155803
Zinc	TX	1190	10155803

Method EPA 6020

Analyte	**AB**	**Analyte ID**	**Method ID**
Aluminum	TX	1000	10156204
Antimony	TX	1005	10156204
Arsenic	TX	1010	10156204
Barium	TX	1015	10156204
Beryllium	TX	1020	10156204

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Cadmium	TX	1030	10156204
Calcium	TX	1035	10156204
Chromium	TX	1040	10156204
Cobalt	TX	1050	10156204
Copper	TX	1055	10156204
Iron	TX	1070	10156204
Lead	TX	1075	10156204
Magnesium	TX	1085	10156204
Manganese	TX	1090	10156204
Molybdenum	TX	1100	10156204
Nickel	TX	1105	10156204
Potassium	TX	1125	10156204
Selenium	TX	1140	10156204
Silver	TX	1150	10156204
Sodium	TX	1155	10156204
Thallium	TX	1165	10156204
Vanadium	TX	1185	10156204
Zinc	TX	1190	10156204

Method EPA 7196

Analyte	**AB**	**Analyte ID**	**Method ID**
Chromium (VI)	TX	1045	10162400

Method EPA 7470

Analyte	**AB**	**Analyte ID**	**Method ID**
Mercury	TX	1095	10165603

Method EPA 8015

Analyte	**AB**	**Analyte ID**	**Method ID**
Acetone (2-Propanone)	TX	4315	10173203
Allyl alcohol	TX	4350	10173203
Diesel range organics (DRO)	TX	9369	10173203
Ethanol	TX	4750	10173203
Ethylene glycol	TX	4785	10173203

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Gasoline range organics (GRO)	TX	9408	10173203
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173203
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173203
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173203
Methanol	TX	4930	10173203
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173203
n-Propanol (1-Propanol)	TX	5055	10173203
Propylene Glycol	TX	6657	10173203
tert-Butyl alcohol	TX	4420	10173203

Method EPA 8021

Analyte	**AB**	**Analyte ID**	**Method ID**
Benzene	TX	4375	10174808
Ethylbenzene	TX	4765	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808

Method EPA 8081

Analyte	**AB**	**Analyte ID**	**Method ID**
4,4'-DDD	TX	7355	10178606
4,4'-DDE	TX	7360	10178606
4,4'-DDT	TX	7365	10178606
Aldrin	TX	7025	10178606
alpha-BHC (alpha-Hexachlorocyclohexane)	TX	7110	10178606
alpha-Chlordane	TX	7240	10178606
beta-BHC (beta-Hexachlorocyclohexane)	TX	7115	10178606
Chlordane (tech.)	TX	7250	10178606
DDD,Total	TX	10314	10178606
DDT,Total	TX	10316	10178606
delta-BHC (delta-Hexachlorocyclohexane)	TX	7105	10178606

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Dicofol (Kelthane)	TX	7460	10178606
Dieldrin	TX	7470	10178606
Endosulfan I	TX	7510	10178606
Endosulfan II	TX	7515	10178606
Endosulfan sulfate	TX	7520	10178606
Endrin	TX	7540	10178606
Endrin aldehyde	TX	7530	10178606
Endrin ketone	TX	7535	10178606
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	TX	7120	10178606
gamma-Chlordane	TX	7245	10178606
Heptachlor	TX	7685	10178606
Heptachlor epoxide	TX	7690	10178606
Hexachlorobenzene	TX	6275	10178606
Methoxychlor	TX	7810	10178606
Mirex	TX	7870	10178606
Toxaphene (Chlorinated camphene)	TX	8250	10178606

Method EPA 8082

Analyte	**AB**	**Analyte ID**	**Method ID**
Aroclor-1016 (PCB-1016)	TX	8880	10179201
Aroclor-1221 (PCB-1221)	TX	8885	10179201
Aroclor-1232 (PCB-1232)	TX	8890	10179201
Aroclor-1242 (PCB-1242)	TX	8895	10179201
Aroclor-1248 (PCB-1248)	TX	8900	10179201
Aroclor-1254 (PCB-1254)	TX	8905	10179201
Aroclor-1260 (PCB-1260)	TX	8910	10179201
PCBs (total)	TX	8870	10179201

Method EPA 8141

Analyte	**AB**	**Analyte ID**	**Method ID**
Azinphos-methyl (Guthion)	TX	7075	10182204
Chlorpyrifos (Dursban)	TX	7300	10182204
Demeton	TX	7390	10182204

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Demeton-o	TX	7395	10182204
Diazinon	TX	7410	10182204
Dimethoate	TX	7475	10182204
Disulfoton	TX	8625	10182204
EPN (Phosphonothioic acid, phenyl-, O-ethyl O-(p-nitrophenyl) ester)	TX	7550	10182204
Ethion	TX	7565	10182204
Ethoprop	TX	7570	10182204
Famphur	TX	7580	10182204
Malathion	TX	7770	10182204
Methyl parathion (Parathion, methyl)	TX	7825	10182204
Monocrotophos	TX	7880	10182204
Parathion, ethyl	TX	7955	10182204
Phorate	TX	7985	10182204
Phosmet (Imidan)	TX	8000	10182204
Terbufos	TX	8185	10182204

Method EPA 8151

Analyte	**AB**	**Analyte ID**	**Method ID**
2,4,5-T	TX	8655	10183207
2,4-D	TX	8545	10183207
2,4-DB	TX	8560	10183207
Dalapon	TX	8555	10183207
Dicamba	TX	8595	10183207
Dichloroprop (Dichlorprop, Weedone)	TX	8605	10183207
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10183207
MCPA	TX	7775	10183207
MCPP	TX	7780	10183207
Silvex (2,4,5-TP)	TX	8650	10183207

Method EPA 8260

Analyte	**AB**	**Analyte ID**	**Method ID**
1,1,1,2-Tetrachloroethane	TX	5105	10184802
1,1,1-Trichloroethane	TX	5160	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

1,1,2,2-Tetrachloroethane	TX	5110	10184802
1,1,2-Trichloroethane	TX	5165	10184802
1,1-Dichloroethane	TX	4630	10184802
1,1-Dichloroethylene	TX	4640	10184802
1,1-Dichloropropene	TX	4670	10184802
1,2,3-Trichlorobenzene	TX	5150	10184802
1,2,3-Trichloropropane	TX	5180	10184802
1,2,4-Trichlorobenzene	TX	5155	10184802
1,2,4-Trimethylbenzene	TX	5210	10184802
1,2-Dibromo-3-chloropropane (DBCP)	TX	4570	10184802
1,2-Dibromoethane (EDB, Ethylene dibromide)	TX	4585	10184802
1,2-Dichlorobenzene	TX	4610	10184802
1,2-Dichloroethane (Ethylene dichloride)	TX	4635	10184802
1,2-Dichloropropane	TX	4655	10184802
1,3,5-Trimethylbenzene	TX	5215	10184802
1,3-Dichlorobenzene	TX	4615	10184802
1,3-Dichloropropane	TX	4660	10184802
1,4-Dichlorobenzene	TX	4620	10184802
1,4-Dioxane (1,4-Diethyleneoxide)	TX	4735	10184802
1-Chlorohexane	TX	4510	10184802
2,2-Dichloropropane	TX	4665	10184802
2-Butanone (Methyl ethyl ketone, MEK)	TX	4410	10184802
2-Chloroethyl vinyl ether	TX	4500	10184802
2-Chlorotoluene	TX	4535	10184802
2-Hexanone (MBK)	TX	4860	10184802
2-Nitropropane	TX	5020	10184802
2-Pentanone	TX	5045	10184802
3-Chloropropionitrile	TX	4530	10184802
4-Chlorotoluene	TX	4540	10184802
4-Isopropyltoluene (p-Cymene)	TX	4915	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

4-Methyl-2-pentanone (MIBK)	TX	4995	10184802
Acetone (2-Propanone)	TX	4315	10184802
Acetonitrile	TX	4320	10184802
Acrolein (Propenal)	TX	4325	10184802
Acrylonitrile	TX	4340	10184802
Allyl chloride (3-Chloropropene)	TX	4355	10184802
Benzene	TX	4375	10184802
Benzyl chloride	TX	5635	10184802
Bromobenzene	TX	4385	10184802
Bromochloromethane	TX	4390	10184802
Bromodichloromethane	TX	4395	10184802
Bromoform	TX	4400	10184802
Carbon disulfide	TX	4450	10184802
Carbon tetrachloride	TX	4455	10184802
Chlorobenzene	TX	4475	10184802
Chlorodibromomethane	TX	4575	10184802
Chloroethane (Ethyl chloride)	TX	4485	10184802
Chloroform	TX	4505	10184802
cis-1,2-Dichloroethylene	TX	4645	10184802
cis-1,3-Dichloropropene	TX	4680	10184802
cis-1,4-Dichloro-2-butene	TX	4600	10184802
Crotonaldehyde	TX	4545	10184802
Dibromofluoromethane	TX	4590	10184802
Dibromomethane (Methylene bromide)	TX	4595	10184802
Dichlorodifluoromethane (Freon-12)	TX	4625	10184802
Diethyl ether	TX	4725	10184802
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	TX	4745	10184802
Ethyl acetate	TX	4755	10184802
Ethyl methacrylate	TX	4810	10184802
Ethylbenzene	TX	4765	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Ethylene oxide	TX	4795	10184802
Hexachlorobutadiene	TX	4835	10184802
Iodomethane (Methyl iodide)	TX	4870	10184802
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10184802
Isopropylbenzene (Cumene)	TX	4900	10184802
m+p-xylene	TX	5240	10184802
Methacrylonitrile	TX	4925	10184802
Methyl acetate	TX	4940	10184802
Methyl acrylate	TX	4945	10184802
Methyl bromide (Bromomethane)	TX	4950	10184802
Methyl chloride (Chloromethane)	TX	4960	10184802
Methyl methacrylate	TX	4990	10184802
Methyl tert-butyl ether (MTBE)	TX	5000	10184802
Methylcyclohexane	TX	4965	10184802
Methylene chloride (Dichloromethane)	TX	4975	10184802
Naphthalene	TX	5005	10184802
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10184802
n-Butylbenzene	TX	4435	10184802
n-Propylbenzene	TX	5090	10184802
o-Xylene	TX	5250	10184802
Pentachloroethane	TX	5035	10184802
sec-Butylbenzene	TX	4440	10184802
Styrene	TX	5100	10184802
tert-Butyl alcohol	TX	4420	10184802
tert-Butylbenzene	TX	4445	10184802
Tetrachloroethylene (Perchloroethylene)	TX	5115	10184802
Toluene	TX	5140	10184802
trans-1,2-Dichloroethylene	TX	4700	10184802
trans-1,3-Dichloropropylene	TX	4685	10184802
trans-1,4-Dichloro-2-butene	TX	4605	10184802

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Trichloroethene (Trichloroethylene)	TX	5170	10184802
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	TX	5175	10184802
Vinyl acetate	TX	5225	10184802
Vinyl chloride	TX	5235	10184802
Xylene (total)	TX	5260	10184802

Method EPA 8270

Analyte	**AB**	**Analyte ID**	**Method ID**
2,2'-Oxybis(1-chloropropane) (bis(2-Chloro-1-methylethyl)ether)	TX	4659	10186002
1,2,4,5-Tetrachlorobenzene	TX	6715	10186002
1,2,4-Trichlorobenzene	TX	5155	10186002
1,2-Dichlorobenzene	TX	4610	10186002
1,2-Diphenylhydrazine	TX	6220	10186002
1,3,5-Trinitrobenzene (1,3,5-TNB)	TX	6885	10186002
1,3-Dichlorobenzene	TX	4615	10186002
1,3-Dinitrobenzene (1,3-DNB)	TX	6160	10186002
1,4-Dichlorobenzene	TX	4620	10186002
1,4-Naphthoquinone	TX	6420	10186002
1-Naphthylamine	TX	6425	10186002
2,3,4,6-Tetrachlorophenol	TX	6735	10186002
2,4,5-Trichlorophenol	TX	6835	10186002
2,4,6-Trichlorophenol	TX	6840	10186002
2,4-Dichlorophenol	TX	6000	10186002
2,4-Dimethylphenol	TX	6130	10186002
2,4-Dinitrophenol	TX	6175	10186002
2,4-Dinitrotoluene (2,4-DNT)	TX	6185	10186002
2,6-Dichlorophenol	TX	6005	10186002
2,6-Dinitrotoluene (2,6-DNT)	TX	6190	10186002
2-Acetylaminofluorene	TX	5515	10186002
2-Chloronaphthalene	TX	5795	10186002
2-Chlorophenol	TX	5800	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	TX	6360	10186002
2-Methylnaphthalene	TX	6385	10186002
2-Methylphenol (o-Cresol)	TX	6400	10186002
2-Naphthylamine	TX	6430	10186002
2-Nitroaniline	TX	6460	10186002
2-Nitrophenol	TX	6490	10186002
2-Picoline (2-Methylpyridine)	TX	5050	10186002
3,3'-Dichlorobenzidine	TX	5945	10186002
3,3'-Dimethylbenzidine	TX	6120	10186002
3-Methylcholanthrene	TX	6355	10186002
3-Methylphenol (m-Cresol)	TX	6405	10186002
3-Nitroaniline	TX	6465	10186002
4,4'-Methylenebis(n,n-dimethylaniline)	TX	6370	10186002
4-Aminobiphenyl	TX	5540	10186002
4-Bromophenyl phenyl ether (BDE-3)	TX	5660	10186002
4-Chloro-3-methylphenol	TX	5700	10186002
4-Chloroaniline	TX	5745	10186002
4-Chlorophenyl phenylether	TX	5825	10186002
4-Methylphenol (p-Cresol)	TX	6410	10186002
4-Nitroaniline	TX	6470	10186002
4-Nitrophenol	TX	6500	10186002
5-Nitro-o-toluidine	TX	6570	10186002
7,12-Dimethylbenz(a) anthracene	TX	6115	10186002
Acenaphthene	TX	5500	10186002
Acenaphthylene	TX	5505	10186002
Acetophenone	TX	5510	10186002
Aniline	TX	5545	10186002
Anthracene	TX	5555	10186002
Aramite	TX	5560	10186002
Atrazine	TX	7065	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Benzenethiol (Thiophenol)	TX	6750	10186002
Benzidine	TX	5595	10186002
Benzo(a)anthracene	TX	5575	10186002
Benzo(a)pyrene	TX	5580	10186002
Benzo(b)fluoranthene	TX	5585	10186002
Benzo(g,h,i)perylene	TX	5590	10186002
Benzo(k)fluoranthene	TX	5600	10186002
Benzoic acid	TX	5610	10186002
Benzyl alcohol	TX	5630	10186002
Biphenyl	TX	5640	10186002
bis(2-Chloroethoxy)methane	TX	5760	10186002
bis(2-Chloroethyl) ether	TX	5765	10186002
bis(2-Ethylhexyl) phthalate (Di(2-Ethylhexyl) phthalate, DEHP)	TX	6065	10186002
Butyl benzyl phthalate	TX	5670	10186002
Caprolactam	TX	7180	10186002
Carbazole	TX	5680	10186002
Chlorobenzilate	TX	7260	10186002
Chrysene	TX	5855	10186002
Dibenz(a,h) anthracene	TX	5895	10186002
Dibenz(a,j) acridine	TX	5900	10186002
Dibenzofuran	TX	5905	10186002
Diethyl phthalate	TX	6070	10186002
Dimethyl phthalate	TX	6135	10186002
Di-n-butyl phthalate	TX	5925	10186002
Di-n-octyl phthalate	TX	6200	10186002
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	TX	8620	10186002
Diphenylamine	TX	6205	10186002
Ethyl methanesulfonate	TX	6260	10186002
Fluoranthene	TX	6265	10186002
Fluorene	TX	6270	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Hexachlorobenzene	TX	6275	10186002
Hexachlorobutadiene	TX	4835	10186002
Hexachlorocyclopentadiene	TX	6285	10186002
Hexachloroethane	TX	4840	10186002
Hexachlorophene	TX	6290	10186002
Hexachlorophene	TX	6290	10186002
Indeno(1,2,3-cd) pyrene	TX	6315	10186002
Isodrin	TX	7725	10186002
Isophorone	TX	6320	10186002
Isosafrole	TX	6325	10186002
Methapyrilene	TX	6345	10186002
Methyl methanesulfonate	TX	6375	10186002
Naphthalene	TX	5005	10186002
Nitrobenzene	TX	5015	10186002
n-Nitrosodiethylamine	TX	6525	10186002
n-Nitrosodimethylamine	TX	6530	10186002
n-Nitrosodi-n-butylamine	TX	5025	10186002
n-Nitrosodi-n-propylamine	TX	6545	10186002
n-Nitrosodiphenylamine	TX	6535	10186002
n-Nitrosomethylethylamine	TX	6550	10186002
n-Nitrosomorpholine	TX	6555	10186002
n-Nitrosopiperidine	TX	6560	10186002
n-Nitrosopyrrolidine	TX	6565	10186002
Pentachlorobenzene	TX	6590	10186002
Pentachloronitrobenzene (PCNB)	TX	6600	10186002
Pentachlorophenol	TX	6605	10186002
Phenacetin	TX	6610	10186002
Phenanthrene	TX	6615	10186002
Phenol	TX	6625	10186002
Phorate	TX	7985	10186002

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Pronamide (Kerb)	TX	6650	10186002
Pyrene	TX	6665	10186002
Pyridine	TX	5095	10186002
Quinoline	TX	6670	10186002
Safrole	TX	6685	10186002

Method EPA 8310

Analyte	AB	Analyte ID	Method ID
Acenaphthene	TX	5500	10187607
Acenaphthylene	TX	5505	10187607
Anthracene	TX	5555	10187607
Benzo(a)anthracene	TX	5575	10187607
Benzo(a)pyrene	TX	5580	10187607
Benzo(b)fluoranthene	TX	5585	10187607
Benzo(g,h,i)perylene	TX	5590	10187607
Benzo(k)fluoranthene	TX	5600	10187607
Chrysene	TX	5855	10187607
Dibenz(a,h) anthracene	TX	5895	10187607
Fluoranthene	TX	6265	10187607
Fluorene	TX	6270	10187607
Indeno(1,2,3-cd) pyrene	TX	6315	10187607
Naphthalene	TX	5005	10187607
Phenanthrene	TX	6615	10187607
Pyrene	TX	6665	10187607

Method EPA 8315

Analyte	AB	Analyte ID	Method ID
Acetaldehyde	TX	4300	10187801
Benzaldehyde	TX	5570	10187801
Formaldehyde	TX	4815	10187801

Method EPA 8316

Analyte	AB	Analyte ID	Method ID
Acrolein (Propenal)	TX	4325	10188202

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16
Expiration Date: 3/31/2018
Issue Date: 4/1/2017

A & B Environmental Services, Inc.

10100 East Freeway, Suite 100
Houston, TX 77029-1919

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Acrylamide	TX	4330	10188202
Acrylonitrile	TX	4340	10188202

Method EPA 9014

Analyte	**AB**	**Analyte ID**	**Method ID**
Amenable cyanide	TX	1510	10193803
Total Cyanide	TX	1635	10193803

Method EPA 9023

Analyte	**AB**	**Analyte ID**	**Method ID**
Extractable organics halides (EOX)	TX	1720	10195003

Method EPA 9034

Analyte	**AB**	**Analyte ID**	**Method ID**
Sulfide	TX	2005	10196006

Method EPA 9040

Analyte	**AB**	**Analyte ID**	**Method ID**
Corrosivity	TX	1615	10196802
pH	TX	1900	10196802

Method EPA 9045

Analyte	**AB**	**Analyte ID**	**Method ID**
Corrosivity	TX	1615	10197805
pH	TX	1900	10197805

Method EPA 9056

Analyte	**AB**	**Analyte ID**	**Method ID**
Bromide	TX	1540	10199209
Chloride	TX	1575	10199209
Fluoride	TX	1730	10199209
Nitrate as N	TX	1810	10199209
Nitrate-nitrite	TX	1820	10199209
Nitrite as N	TX	1840	10199209
Orthophosphate as P	TX	1870	10199209
Sulfate	TX	2000	10199209

Texas Commission on Environmental Quality

NELAP - Recognized Laboratory Fields of Accreditation

Certificate: T104704213-17-16

A & B Environmental Services, Inc.

Expiration Date: 3/31/2018

10100 East Freeway, Suite 100
Houston, TX 77029-1919

Issue Date: 4/1/2017

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: ***Solid & Chemical Materials***

Method	Analyte	AB	Analyte ID	Method ID
EPA 9065	Total phenolics	TX	1905	10200405
EPA 9095	Paint Filter Liquids Test	TX	10312	10204203
SM 2540 G	Residue-total (total solids)	TX	1950	20005203
SM 9221 C / 9221 E	Fecal coliforms (enumeration)	TX	2530	20195806
SM 9222 B	Total coliforms (enumeration)	TX	2500	20198009
SM 9222 D	Fecal coliforms (enumeration)	TX	2530	20037405
SM 9223 B	Escherichia coli (enumeration)	TX	2525	20211205
TCEQ 1005	Total Petroleum Hydrocarbons (TPH)	TX	2050	90019208

ATTACHMENT F
INVESTIGATION-DERIVED WASTE DATA PACKAGE

Laboratory Analysis Report

Total Number of Pages: 16

Job ID : 17101519

10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name :
DRA Block 333 Phase II

Report To :	Client Name:	Weston Solutions	P.O.#.:
	Attn:	Dawn Denham	Sample Collected By: Michael Kanarek
	Client Address:	5599 San Felipe Suite 700	Date Collected: 10/25/17
	City, State, Zip:	Houston, Texas, 77056	

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
1DW-Soil	Soil	17101519.01

Released By: Alisha Hughes
Title: Project Manager
Date: 11/1/2017

This Laboratory is NELAP (T104704213-17-16) accredited. Effective: 4/1/2017; Expires: 3/31/2018
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

Date Received : 10/25/2017 13:12

LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 17101519

Date: 11/1/2017

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL		

Qualifier Definition

J	Estimation. Below calibration range but above MDL.
L2	Associated LCS and/or LCSD recovery is below acceptance limits for flagged analyte. Bias may be low.
M8	Matrix Spike and/or Matrix Spike Duplicate recovery is above laboratory control limits.
V11	CCV recovery is below acceptance limits.

LABORATORY TEST RESULTS

Job ID : 17101519

Date 11/1/2017

Client Name: Weston Solutions Attn: Dawn Denham

Project Name: DRA Block 333 Phase II

Client Sample ID: 1DW-Soil
Date Collected: 10/25/17
Time Collected: 12:00
Other Information:

Job Sample ID: 17101519.01
Sample Matrix Soil
% Moisture 14.4

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SM 2540G	% Moisture								
	% Moisture	14.4	%	1	0.1			10/27/17 15:50	AL
SW-846 6010C	TCLP Metals								
	Arsenic	BRL	mg/L	1	0.04	5.0		10/30/17 19:49	CAS
	Barium	2.69	mg/L	1	0.04	100.0		10/30/17 19:49	CAS
	Cadmium	BRL	mg/L	1	0.04	1.0		10/30/17 19:49	CAS
	Chromium	BRL	mg/L	1	0.04	5.0		10/30/17 19:49	CAS
	Lead	BRL	mg/L	1	0.04	5.0		10/30/17 19:49	CAS
	Selenium	BRL	mg/L	1	0.04	1.0		10/30/17 19:49	CAS
	Silver	BRL	mg/L	1	0.04	5.0		10/30/17 19:49	CAS
SW-846 7470A	TCLP Mercury								
	Mercury	BRL	mg/L	1	0.00050	0.2		10/31/17 15:40	ARV
TX 1005	Total Petroleum Hydrocarbons								
	C6-C12	BRL	mg/Kg	1	23.7			10/27/17 23:24	LL
	>C12-C28	BRL	mg/Kg	1	20.3			10/27/17 23:24	LL
	>C28-C35	BRL	mg/Kg	1	17.7			10/27/17 23:24	LL
	Total C6-C35	BRL	mg/Kg	1				10/27/17 23:24	LL
	1-Chlorooctane(surr)	91.3	%	1	60-143			10/27/17 23:24	LL
	Chlorooctadecane(surr)	88	%	1	60-150			10/27/17 23:24	LL
SW-846 8260C									
	1,1,1,2-Tetrachloroethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,1,1-Trichloroethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,1,2,2-Tetrachloroethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,1,2-Trichloroethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,1-Dichloroethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,1-Dichloroethylene	BRL	mg/Kg	0.87	0.0017			10/27/17 12:17	JKD
	1,1-Dichloropropene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2,3-trichlorobenzene	BRL	mg/Kg	0.87	0.0017			10/27/17 12:17	JKD
	1,2,3-Trichloropropane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2,4-Trichlorobenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2,4-Trimethylbenzene	0.0075	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2-Dibromo-3-chloropropane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2-Dibromoethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2-Dichlorobenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2-Dichloroethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,2-Dichloropropane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,3,5-Trimethylbenzene	0.0016	mg/Kg	0.87	0.00087		J	10/27/17 12:17	JKD
	1,3-Dichlorobenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,3-Dichloropropane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Job ID : 17101519

Date 11/1/2017

Client Name: Weston Solutions Attn: Dawn Denham

Project Name: DRA Block 333 Phase II

Client Sample ID: 1DW-Soil
Date Collected: 10/25/17
Time Collected: 12:00
Other Information:

Job Sample ID: 17101519.01
Sample Matrix Soil
% Moisture 14.4

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8260C									
	1,4-Dichlorobenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	1,4-Dioxane	BRL	mg/Kg	0.87	0.065			10/27/17 12:17	JKD
	2,2-Dichloropropane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	2-Chlorotoluene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	4-Chlorotoluene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	4-Isopropyltoluene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Benzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Bromobenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Bromochloromethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Bromodichloromethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Bromoform	BRL	mg/Kg	0.87	0.000435			10/27/17 12:17	JKD
	Bromomethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Carbon disulfide	BRL	mg/Kg	0.87	0.0017		V11	10/27/17 12:17	JKD
	Carbon tetrachloride	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Chlorobenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Chloroethane	BRL	mg/Kg	0.87	0.0026			10/27/17 12:17	JKD
	Chloroform	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Chloromethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	cis-1,2-Dichloroethylene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	cis-1,3-Dichloropropene	BRL	mg/Kg	0.87	0.000348			10/27/17 12:17	JKD
	Dibromochloromethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Dibromomethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Dichlorodifluoromethane	BRL	mg/Kg	0.87	0.0017			10/27/17 12:17	JKD
	Ethylbenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Isopropylbenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	m- & p-Xylenes	0.0041	mg/Kg	0.87	0.00087		J	10/27/17 12:17	JKD
	MEK	0.02	mg/Kg	0.87	0.0017			10/27/17 12:17	JKD
	Methylene chloride	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	MTBE	BRL	mg/Kg	0.87	0.0026			10/27/17 12:17	JKD
	Naphthalene	BRL	mg/Kg	0.87	0.000348			10/27/17 12:17	JKD
	n-Butylbenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	n-Propylbenzene	0.0013	mg/Kg	0.87	0.00087		J	10/27/17 12:17	JKD
	o-Xylene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	sec-Butylbenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Styrene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	t-butylbenzene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Tetrachloroethylene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Toluene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD

Soil results reported on dry weight basis

LABORATORY TEST RESULTS

Job ID : 17101519

Date 11/1/2017

Client Name: Weston Solutions

Attn: Dawn Denham

Project Name: DRA Block 333 Phase II

Client Sample ID: 1DW-Soil
Date Collected: 10/25/17
Time Collected: 12:00
Other Information:

Job Sample ID: 17101519.01
Sample Matrix Soil
% Moisture 14.4

Test Method	Parameter/Test Description	Result	Units	DF	Rpt Limit	Reg Limit	Q	Date Time	Analyst
SW-846 8260C									
	trans-1,2-Dichloroethylene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	trans-1,3-Dichloropropene	BRL	mg/Kg	0.87	0.000348			10/27/17 12:17	JKD
	Trichloroethylene	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Trichlorofluoromethane	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Vinyl Chloride	BRL	mg/Kg	0.87	0.00087			10/27/17 12:17	JKD
	Xylenes	0.0041	mg/Kg	0.87	0.00087		J	10/27/17 12:17	JKD
	1,2-Dichloroethane-d4(surr)	103	%	0.87	70-130			10/27/17 12:17	JKD
	Dibromofluoromethane(surr)	104	%	0.87	70-130			10/27/17 12:17	JKD
	p-Bromofluorobenzene(surr)	114	%	0.87	70-130			10/27/17 12:17	JKD
	Toluene-d8(surr)	103	%	0.87	70-130			10/27/17 12:17	JKD

Soil results reported on dry weight basis

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : % Moisture **Method :** SM 2540G **Reporting Units :** %

QC Batch ID : Qb17102777 **Created Date :** 10/27/17 **Created By :** Alomeda

Samples in This QC Batch : 17101519.01

Sample Preparation : PB17102760 **Prep Method :** SM 2540G **Prep Date :** 10/27/17 15:26 **Prep By :** Alomeda

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
% Moisture		BRL	%	1	0.1		

QC Type: Duplicate

QC Sample ID: 17101472.01

Parameter	QCSample Result	Sample Result	Units	RPD	RPD CtrlLimit		Qual
% Moisture	BRL	BRL	%		20		

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : Total Petroleum Hydrocarbons **Method :** TX 1005 **Reporting Units :** mg/Kg

QC Batch ID : Qb17102806 **Created Date :** 10/26/17 **Created By :** LLe

Samples in This QC Batch : 17101519.01

Sample Preparation : PB17102803 **Prep Method :** TX 1005 **Prep Date :** 10/26/17 16:00 **Prep By :** LLe

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
C6-C12	TPH-1005-1	BRL	mg/Kg	1	23.7		
>C12-C28	TPH-1005-2	BRL	mg/Kg	1	20.3		
>C28-C35	TPH-1005-4	BRL	mg/Kg	1	17.7		
Total C6-C35		BRL	mg/Kg	1			
Chlorooctadecane(surr)	3386-33-2	109	%	1	60-150		
1-Chlorooctane(surr)	111-85-3	113	%	1	60-143		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
C6-C12	500	545	109	500	581	116	6.4	20	75-125	
>C12-C28	500	544	109	500	574	115	5.4	20	75-125	
>C28-C35	500	575	115	500	624	125	8.2	20	75-125	

QC Type: MS and MSD
QC Sample ID: 17101519.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
C6-C12	BRL	500	521	104	500	443	88.6	16.2	20	75-125	
>C12-C28	BRL	500	507	101	500	461	92.2	9.5	20	75-125	
>C28-C35	BRL	500	546	109	500	523	105	4.3	20	75-125	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101519.01

Sample Preparation : PB17103020 **Prep Method :** SW-846 5035A **Prep Date :** 10/27/17 10:00 **Prep By :** Jdongre

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
1,1,1,2-Tetrachloroethane	630-20-6	BRL	mg/Kg	1	0.005	
1,1,1-Trichloroethane	71-55-6	BRL	mg/Kg	1	0.005	
1,1,2,2-Tetrachloroethane	79-34-5	BRL	mg/Kg	1	0.005	
1,1,2-Trichloroethane	79-00-5	BRL	mg/Kg	1	0.005	
1,1-Dichloroethane	75-34-3	BRL	mg/Kg	1	0.005	
1,1-Dichloroethylene	75-35-4	BRL	mg/Kg	1	0.005	
1,1-Dichloropropene	563-58-6	BRL	mg/Kg	1	0.005	
1,2,3-trichlorobenzene	87-61-6	BRL	mg/Kg	1	0.005	
1,2,3-Trichloropropane	96-18-4	BRL	mg/Kg	1	0.005	
1,2,4-Trichlorobenzene	120-82-1	BRL	mg/Kg	1	0.005	
1,2,4-Trimethylbenzene	95-63-6	BRL	mg/Kg	1	0.005	
1,2-Dibromo-3-chloropropa	96-12-8	BRL	mg/Kg	1	0.005	
1,2-Dibromoethane	106-93-4	BRL	mg/Kg	1	0.005	
1,2-Dichlorobenzene	95-50-1	BRL	mg/Kg	1	0.005	
1,2-Dichloroethane	107-06-2	BRL	mg/Kg	1	0.005	
1,2-Dichloropropane	78-87-5	BRL	mg/Kg	1	0.005	
1,3,5-Trimethylbenzene	108-67-8	BRL	mg/Kg	1	0.005	
1,3-Dichlorobenzene	541-73-1	BRL	mg/Kg	1	0.005	
1,3-Dichloropropane	142-28-9	BRL	mg/Kg	1	0.005	
1,4-Dichlorobenzene	106-46-7	BRL	mg/Kg	1	0.005	
1,4-Dioxane	123-91-1	BRL	mg/Kg	1	0.32	
2,2-Dichloropropane	594-20-7	BRL	mg/Kg	1	0.005	
2-Chlorotoluene	95-49-8	BRL	mg/Kg	1	0.005	
4-Chlorotoluene	106-43-4	BRL	mg/Kg	1	0.005	
4-Isopropyltoluene	99-87-6	BRL	mg/Kg	1	0.005	
Benzene	71-43-2	BRL	mg/Kg	1	0.005	
Bromobenzene	108-86-1	BRL	mg/Kg	1	0.005	
Bromochloromethane	74-97-5	BRL	mg/Kg	1	0.005	
Bromodichloromethane	75-27-4	BRL	mg/Kg	1	0.005	
Bromoform	75-25-2	BRL	mg/Kg	1	0.005	
Bromomethane	74-83-9	BRL	mg/Kg	1	0.005	
Carbon disulfide	75-15-0	BRL	mg/Kg	1	0.005	
Carbon tetrachloride	56-23-5	BRL	mg/Kg	1	0.005	
Chlorobenzene	108-90-7	BRL	mg/Kg	1	0.005	
Chloroethane	75-00-3	BRL	mg/Kg	1	0.005	
Chloroform	67-66-3	BRL	mg/Kg	1	0.005	
Chloromethane	74-87-3	BRL	mg/Kg	1	0.005	
cis-1,2-Dichloroethylene	156-59-2	BRL	mg/Kg	1	0.005	
cis-1,3-Dichloropropene	10061-01-5	BRL	mg/Kg	1	0.005	
Dibromochloromethane	124-48-1	BRL	mg/Kg	1	0.005	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101519.01

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit	Qual
Dibromomethane	74-95-3	BRL	mg/Kg	1	0.005	
Dichlorodifluoromethane	75-71-8	BRL	mg/Kg	1	0.005	
Ethylbenzene	100-41-4	BRL	mg/Kg	1	0.005	
Isopropylbenzene	98-82-8	BRL	mg/Kg	1	0.005	
m- & p-Xylenes	108-38-3&106-42-3	BRL	mg/Kg	1	0.01	
MEK	78-93-3	BRL	mg/Kg	1	0.005	
Methylene chloride	75-09-2	BRL	mg/Kg	1	0.005	
MTBE	1634-04-4	BRL	mg/Kg	1	0.005	
Naphthalene	91-20-3	BRL	mg/Kg	1	0.005	
n-Butylbenzene	104-51-8	BRL	mg/Kg	1	0.005	
n-Propylbenzene	103-65-1	BRL	mg/Kg	1	0.005	
o-Xylene	95-47-6	BRL	mg/Kg	1	0.005	
sec-Butylbenzene	135-98-8	BRL	mg/Kg	1	0.005	
Styrene	100-42-5	BRL	mg/Kg	1	0.005	
t-butylbenzene	98-06-6	BRL	mg/Kg	1	0.005	
Tetrachloroethylene	127-18-4	BRL	mg/Kg	1	0.005	
Toluene	108-88-3	BRL	mg/Kg	1	0.005	
trans-1,2-Dichloroethylene	156-60-5	BRL	mg/Kg	1	0.005	
trans-1,3-Dichloropropene	10061-02-6	BRL	mg/Kg	1	0.005	
Trichloroethylene	79-01-6	BRL	mg/Kg	1	0.005	
Trichlorofluoromethane	75-69-4	BRL	mg/Kg	1	0.005	
Vinyl Chloride	75-01-4	BRL	mg/Kg	1	0.005	
Xylenes	1330-20-7	BRL	mg/Kg	1	0.005	
Dibromofluoromethane(surr	1868-53-7	111	%	1	70-130	
1,2-Dichloroethane-d4(surr	17060-07-0	110	%	1	70-130	
Toluene-d8(surr)	2037-26-5	103	%	1	70-130	
p-Bromofluorobenzene(surr	460-00-4	97.9	%	1	70-130	

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	0.02	0.022	110	0.02	0.021	105	4.7	30	71.4-131	
1,1,1-Trichloroethane	0.02	0.023	115	0.02	0.021	105	9.1	30	69.6-140	
1,1,2,2-Tetrachloroethane	0.02	0.021	105	0.02	0.019	95	10	30	66.6-128	
1,1,2-Trichloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	72.8-125	
1,1-Dichloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	72.7-129	
1,1-Dichloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.4-131	
1,1-Dichloropropene	0.02	0.022	110	0.02	0.02	100	9.5	30	75.9-132	
1,2,3-trichlorobenzene	0.02	0.021	105	0.02	0.019	95	10	30	56.7-153	
1,2,3-Trichloropropane	0.02	0.02	100	0.02	0.018	90	10.5	30	61.6-138	
1,2,4-Trichlorobenzene	0.02	0.02	100	0.02	0.018	90	10.5	30	55.9-150	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101519.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,2,4-Trimethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.1-131	
1,2-Dibromo-3-chloropropa	0.02	0.018	90	0.02	0.015	75	18.2	30	52.4-150	
1,2-Dibromoethane	0.02	0.021	105	0.02	0.02	100	4.9	30	72.9-125	
1,2-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	76.1-126	
1,2-Dichloroethane	0.02	0.023	115	0.02	0.021	105	9.1	30	66.4-134	
1,2-Dichloropropane	0.02	0.022	110	0.02	0.02	100	9.5	30	70.2-128	
1,3,5-Trimethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	75.1-127	
1,3-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	73.9-126	
1,3-Dichloropropane	0.02	0.02	100	0.02	0.019	95	5.1	30	68.3-124	
1,4-Dichlorobenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.3-127	
1,4-Dioxane	0.64	0.59	92.2	0.64	0.526	82.2	11.5	30	80-120	
2,2-Dichloropropane	0.02	0.024	120	0.02	0.021	105	13.3	30	68.5-138	
2-Chlorotoluene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.7-128	
4-Chlorotoluene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.2-126	
4-Isopropyltoluene	0.02	0.022	110	0.02	0.02	100	9.5	30	77.5-125	
Benzene	0.02	0.024	120	0.02	0.022	110	8.7	30	74-126	
Bromobenzene	0.02	0.021	105	0.02	0.02	100	4.9	30	73.3-129	
Bromochloromethane	0.02	0.023	115	0.02	0.021	105	9.1	30	68.8-131	
Bromodichloromethane	0.02	0.024	120	0.02	0.022	110	8.7	30	69-135	
Bromoform	0.02	0.021	105	0.02	0.019	95	10	30	62-146	
Bromomethane	0.02	0.021	105	0.02	0.02	100	4.9	30	58.7-139	
Carbon disulfide	0.02	0.015	75	0.02	0.014	70	6.9	30	80-120	L2
Carbon tetrachloride	0.02	0.026	130	0.02	0.024	120	8	30	68.7-135	
Chlorobenzene	0.02	0.022	110	0.02	0.021	105	4.7	30	73.3-129	
Chloroethane	0.02	0.022	110	0.02	0.02	100	9.5	30	66.2-129	
Chloroform	0.02	0.023	115	0.02	0.021	105	9.1	30	73.7-134	
Chloromethane	0.02	0.026	130	0.02	0.024	120	8	30	51.4-135	
cis-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.02	100	14	30	72.4-132	
cis-1,3-Dichloropropene	0.02	0.022	110	0.02	0.019	95	14.6	30	67.7-134	
Dibromochloromethane	0.02	0.022	110	0.02	0.02	100	9.5	30	73.2-126	
Dibromomethane	0.02	0.022	110	0.02	0.02	100	9.5	30	69.9-134	
Dichlorodifluoromethane	0.02	0.026	130	0.02	0.024	120	8	30	36.8-144	
Ethylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	72.2-128	
Isopropylbenzene	0.02	0.023	115	0.02	0.021	105	9.1	30	71.2-131	
m- & p-Xylenes	0.04	0.045	113	0.04	0.042	105	6.9	30	70.7-131	
MEK	0.02	0.018	90	0.02	0.017	85	5.7	30	52.5-152	
Methylene chloride	0.02	0.023	115	0.02	0.02	100	14	30	70.6-129	
MTBE	0.02	0.019	95	0.02	0.017	85	11.1	30	80-120	
Naphthalene	0.02	0.018	90	0.02	0.016	80	11.8	30	60.7-145	
n-Butylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	66.5-136	
n-Propylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	73.3-126	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101519.01

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
o-Xylene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.6-130	
sec-Butylbenzene	0.02	0.022	110	0.02	0.021	105	4.7	30	77.9-124	
Styrene	0.02	0.022	110	0.02	0.02	100	9.5	30	71.1-131	
t-butylbenzene	0.02	0.022	110	0.02	0.02	100	9.5	30	74.4-130	
Tetrachloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	62.6-157	
Toluene	0.02	0.022	110	0.02	0.021	105	4.7	30	73.3-127	
trans-1,2-Dichloroethylene	0.02	0.023	115	0.02	0.021	105	9.1	30	80-120	
trans-1,3-Dichloropropene	0.02	0.021	105	0.02	0.019	95	10	30	71.5-124	
Trichloroethylene	0.02	0.024	120	0.02	0.021	105	13.3	30	69.2-133	
Trichlorofluoromethane	0.02	0.025	125	0.02	0.022	110	12.8	30	63.9-140	
Vinyl Chloride	0.02	0.021	105	0.02	0.019	95	10	30	40.9-159	
Xylenes	0.06	0.067	112	0.06	0.062	103	7.8	30	69.2-133	

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1,1,2-Tetrachloroethane	BRL	0.017	0.019	112						71.4-131	
1,1,1-Trichloroethane	BRL	0.017	0.019	112						69.6-140	
1,1,2,2-Tetrachloroethane	BRL	0.017	0.019	112						66.6-128	
1,1,2-Trichloroethane	BRL	0.017	0.019	112						72.8-125	
1,1-Dichloroethane	BRL	0.017	0.018	106						72.7-129	
1,1-Dichloroethylene	BRL	0.017	0.019	112						71.4-131	
1,1-Dichloropropene	BRL	0.017	0.018	106						75.9-132	
1,2,3-trichlorobenzene	BRL	0.017	0.017	100						56.7-153	
1,2,3-Trichloropropane	BRL	0.017	0.02	118						61.6-138	
1,2,4-Trichlorobenzene	BRL	0.017	0.015	88.2						55.9-150	
1,2,4-Trimethylbenzene	BRL	0.017	0.018	106						71.1-131	
1,2-Dibromo-3-chloropropa	BRL	0.017	0.017	100						52.4-150	
1,2-Dibromoethane	BRL	0.017	0.019	112						72.9-125	
1,2-Dichlorobenzene	BRL	0.017	0.018	106						76.1-126	
1,2-Dichloroethane	BRL	0.017	0.02	118						66.4-134	
1,2-Dichloropropane	BRL	0.017	0.019	112						70.2-128	
1,3,5-Trimethylbenzene	BRL	0.017	0.017	100						75.1-127	
1,3-Dichlorobenzene	BRL	0.017	0.017	100						73.9-126	
1,3-Dichloropropane	BRL	0.017	0.018	106						68.3-124	
1,4-Dichlorobenzene	BRL	0.017	0.017	100						72.3-127	
1,4-Dioxane	BRL	0.64	0.721	113						70-130	
2,2-Dichloropropane	BRL	0.017	0.017	100						68.5-138	
2-Chlorotoluene	BRL	0.017	0.018	106						71.7-128	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : Volatile Organic Compounds **Method :** SW-846 8260C **Reporting Units :** mg/Kg

QC Batch ID : Qb17103038 **Created Date :** 10/27/17 **Created By :** Jdongre

Samples in This QC Batch : 17101519.01

QC Type: MS and MSD
QC Sample ID: 17101525.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
4-Chlorotoluene	BRL	0.017	0.017	100						72.2-126	
4-Isopropyltoluene	BRL	0.017	0.017	100						77.5-125	
Benzene	BRL	0.017	0.02	118						74-126	
Bromobenzene	BRL	0.017	0.018	106						73.3-129	
Bromochloromethane	BRL	0.017	0.019	112						68.8-131	
Bromodichloromethane	BRL	0.017	0.02	118						69-135	
Bromoform	BRL	0.017	0.019	112						62-146	
Bromomethane	BRL	0.017	0.015	88.2						58.7-139	
Carbon disulfide	BRL	0.017	0.012	70.6						70-130	
Carbon tetrachloride	BRL	0.017	0.02	118						68.7-135	
Chlorobenzene	BRL	0.017	0.018	106						73.3-129	
Chloroethane	BRL	0.017	0.016	94.1						66.2-129	
Chloroform	BRL	0.017	0.019	112						73.7-134	
Chloromethane	BRL	0.017	0.021	124						51.4-135	
cis-1,2-Dichloroethylene	BRL	0.017	0.018	106						72.4-132	
cis-1,3-Dichloropropene	BRL	0.017	0.018	106						67.7-134	
Dibromochloromethane	BRL	0.017	0.019	112						73.2-126	
Dibromomethane	BRL	0.017	0.02	118						69.9-134	
Dichlorodifluoromethane	BRL	0.017	0.027	159						36.8-144	M8
Ethylbenzene	BRL	0.017	0.018	106						72.2-128	
Isopropylbenzene	BRL	0.017	0.018	106						71.2-131	
m- & p-Xylenes	BRL	0.034	0.035	103						70.7-131	
MEK	BRL	0.017	0.019	112						52.5-152	
Methylene chloride	BRL	0.017	0.016	94.1						70.6-129	
MTBE	BRL	0.017	0.017	100						70-130	
Naphthalene	BRL	0.017	0.018	106						60.7-145	
n-Butylbenzene	BRL	0.017	0.016	94.1						66.5-136	
n-Propylbenzene	BRL	0.017	0.017	100						73.3-126	
o-Xylene	BRL	0.017	0.018	106						71.6-130	
sec-Butylbenzene	BRL	0.017	0.018	106						77.9-124	
Styrene	BRL	0.017	0.018	106						71.1-131	
t-butylbenzene	BRL	0.017	0.018	106						74.4-130	
Tetrachloroethylene	BRL	0.017	0.02	118						62.6-157	
Toluene	BRL	0.017	0.018	106						73.3-127	
trans-1,2-Dichloroethylene	BRL	0.017	0.018	106						70-130	
trans-1,3-Dichloropropene	BRL	0.017	0.017	100						71.5-124	
Trichloroethylene	BRL	0.017	0.02	118						69.2-133	
Trichlorofluoromethane	BRL	0.017	0.016	94.1						63.9-140	
Vinyl Chloride	BRL	0.017	0.016	94.1						40.9-159	
Xylenes	BRL	0.051	0.053	104						69.2-133	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : TCLP Metals **Method :** SW-846 6010C **Reporting Units :** mg/L

QC Batch ID : Qb17103109 **Created Date :** 10/30/17 **Created By :** csmith

Samples in This QC Batch : 17101519.01

Digestion : PB17103010 **Prep Method :** SW-846 3010A **Prep Date :** 10/30/17 09:20 **Prep By :** Mwissman

TCLP Prep : PB17103005 **Prep Method :** SW-846 1311 **Prep Date :** 10/27/17 17:00 **Prep By :** OHalili

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
Arsenic	7440-38-2	BRL	mg/L	1	0.04		
Barium	7440-39-3	BRL	mg/L	1	0.04		
Cadmium	7440-43-9	BRL	mg/L	1	0.04		
Chromium	7440-47-3	BRL	mg/L	1	0.04		
Lead	7439-92-1	BRL	mg/L	1	0.04		
Selenium	7782-49-2	BRL	mg/L	1	0.04		
Silver	7440-22-4	BRL	mg/L	1	0.04		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Arsenic	2	2.101	105	2	2.038	102	3	20	80-120	
Barium	2	1.919	96	2	1.872	93.6	2.5	20	80-120	
Cadmium	2	1.995	99.8	2	1.948	97.4	2.4	20	80-120	
Chromium	2	2.007	100	2	1.957	97.9	2.5	20	80-120	
Lead	2	1.995	99.8	2	1.945	97.3	2.5	20	80-120	
Selenium	2	1.901	95.1	2	1.867	93.4	1.8	20	80-120	
Silver	2	2.073	104	2	2.010	101	3.1	20	80-120	

QC Type: MS and MSD
QC Sample ID: 17101519.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Arsenic	BRL	2	1.986	98.8						45-138	
Barium	2.694	2	4.669	98.8						39-135	
Cadmium	BRL	2	1.768	88.4						56-125	
Chromium	BRL	2	1.824	91.2						52-125	
Lead	BRL	2	1.789	89.1						55-125	
Selenium	BRL	2	1.829	91.5						70-130	
Silver	BRL	2	2.011	100						26-148	

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE

Job ID : 17101519 **Date :** 11/1/2017

Analysis : TCLP Metals, Mercury **Method :** SW-846 7470A **Reporting Units :** mg/L

QC Batch ID : Qb17103193 **Created Date :** 10/31/17 **Created By :** AVispute

Samples in This QC Batch : 17101519.01

Digestion :	PB17103174	**Prep Method :**	SW-846 7470A	**Prep Date :**	10/31/17 11:40	**Prep By :**	AVispute
TCLP Prep :	PB17103005	**Prep Method :**	SW-846 1311	**Prep Date :**	10/27/17 17:00	**Prep By :**	OHalili

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	RptLimit		Qual
Mercury	7439-97-6	BRL	mg/L	1	0.0005		

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
Mercury	0.005	0.00544	109	0.005	0.00528	106	3	20.5	78-117	

QC Type: MS and MSD
QC Sample ID: 17101413.02

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
Mercury	BRL	0.005	0.00512	102						80-120	

Refer to the Definition page for terms.

A & B Labs — *Chain of Custody*

The Chain of Custody is a Legal Document

Page 1 of 1

10100 East Fwy (I-10)
Suite 100
Houston, TX 77029
713-453-6060
1-877-478-6060 Toll Free
713-453-6091 Fax
ablabs.com

A&B JOB ID # 1704 1519

5. Project #

1. REPORT TO:
Company: Weston Solutions
Address: 5599 San Felipe, Suite 700
Houston, TX 77056
Contact: Dawn Denham
Phone: 713-985-6600
Fax: ☐
E-mail: dawn.denham@westonsolutions.com

2. INVOICE TO:
Company: Same as "report to"
Address:
Contact:
Phone:
Fax: ☐
E-mail: ☐

3. PO #
3a. A&B Quote #
4. Turnaround Time (Business Days)
☐ 1 Day* ☒ Other: 5day
☐ 2 Days*
☐ 3 Days* *Surcharge applies
☐ 7 Days - Standard

6. Project Name/Location
DRA Block 333 Phase II

7. Reporting Requirement:
☐ TRRP Limits only ☐ TRRP Rpt. Package ☐ See Attached ☐ Standard Level II ☐ PST ☐ MDL ☒ EDD

8. Sampler's Name & Company (PLEASE PRINT): Michael Kanack Weston Solutions
Sampler's Signature & Date: 10/25/17

LAB USE ONLY	9. Sample ID and Description	10. Sampling Date	10. Sampling Time 24hr	11. Comp.	11. Grab	12. Matrix: Water	Soil	Sludge	Oil	Drinking Water	Air	Other	No. of Containers	13. 14. Containers*	15. Preservatives**	16. PH-Lab Only	17. Analyses/Methods: VOCs (8015)-C11 Surr	TPH DRO	% moisture	TCLP metals	18. REMARKS
														VOA	C						
														VOA	C						
														4oz	C						
														8oz	C						
AH	MW-5091	10/25/17	1200	X			X						8	X	X	X	9				

Page 15 of 16

19. RELINQUISHED BY	DATE	TIME	20. RECEIVED BY	DATE	TIME
1	10/25/17	13:12		10.25.17	1312
2					
3					

21. KNOWN HAZARDS/COMMENTS

Temperature: 3.4-0.5=2.9 °C
Thermometer ID 140539031
Intact: Y or N Initials AH

A&B cannot accept verbal changes
Please FAX written changes to 713-453-6091

Samples will be disposed of after 30 days
A&B reserves the right to return samples

*Containers: VOA - 40 ml vial; 4 oz/8 oz - glass wide mouth; A/G - Amber/Glass 1 Liter; P/O - Plastic/other

**Preservatives: C - Cool; H - HCl; N - HNO_3; S - H_2SO_4; OH - NaOH; T - $NA_2S_2O_3$; X - Other

METHOD OF SHIPMENT

BILL OF LADING/TRACKING #

LAB USE ONLY SAMPLING _____ RENTAL _____ P/U _____ Supplies _____ Field Work _____

Sample Condition Checklist

A&B JobID : **17101519**	Date Received : **10/25/2017**	Time Received : **1:12PM**
Client Name : **Weston Solutions**		
Temperature : **3.4-0.5cf=2.9°C**	Sample pH : **n/a**	
Thermometer ID : **140539631**	pH Paper ID : **n/a**	

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**		X	
2.	**Sample(s) in a cooler.**	X		
3.	**If yes, ice in cooler.**	X		
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** **Water** ☐ **Soil** ☑ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☐ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged or labeled.**	X		
12.	**Sample ID labels match C-O-C ID's**	X		
13.	**Bottle count on C-O-C matches bottles found.**	X		
14.	**Sample volume is sufficient for analyses requested.**	X		
15.	**Samples were received within the hold time.**	X		
16.	**VOA vials completely filled.**			X
17.	**Sample accepted.**	X		
18	**Has client been contacted about sub-out**			X

Comments : Include actions taken to resolve discrepancies/problem:

Received 6 pre-weighed vials and 2 bulk jars. -ANH 10-25-17.

Received by : AHall

Check in by/date : AHall / 10/25/2017