

# STC

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**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
LIMITED SUBSURFACE INVESTIGATION  
15.159 ACRES – FORMER ELLIPSE ENERGY  
1130 COUNTY ROAD 239  
GONZALES, TEXAS**

**PREPARED FOR:  
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Picket Fence Properties**



**PREPARED BY:**

**STC ENVIRONMENTAL SERVICES, INC.**

**STC PROJECT 14276**

**October 17, 2014**

A handwritten signature in blue ink, appearing to read 'Craig Tribley', with a red checkmark above and below the signature.

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**Craig Tribley  
President – Professional Geoscientist  
CAPM 00022**

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## 1.0 SUMMARY

This report presents the results of soil and groundwater testing conducted at the former Ellipse Energy Bio-Diesel Manufacturing facility located at 1130 County Road 239 in Gonzales, Texas. The work was performed to determine whether hazardous substances may have been released into soil or groundwater on the property. Hazardous substances were suspected to be present at the site due to its history of use as a bio-diesel plant. This assessment is associated with a real estate evaluation of the property.

On June 30, 2014, six (6) exploratory borings were drilled at the site. One (1) of the six (6) borings was converted to a permanent groundwater monitoring well. Soil samples from each of the borings/wells were analyzed for a wide range of industrial pollutants. The tests conducted included total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl-tertiary butyl ether (MTBE), methanol, Polycyclic Aromatic Hydrocarbons (PAH), and extractable oil and grease (Hexane Extractable material or HEM).

The results of the soil testing revealed the presence of HEM and in all of the soil samples. This finding indicates the presence of vegetable and animal oils in soil is relatively widespread in soils across the site.

The soil tests were compared to the Action Levels recognized in the Petroleum Storage Tank (PST) Program of the Texas Commission on Environmental Quality (TCEQ). The soil test results were also compared to the Protective Concentration Levels (PCL's) set forth in the Texas Risk Reduction Program (TRRP). This comparison indicated that the TPH and Methanol concentration at one of the six boring locations exceeded the Action Levels or PCL's.

This sample which exceeded the Action Levels and PCL's (Boring B-2 at 0-2.5 feet) was located in an area of obvious surface spillage. This is the only sample that detected TPH by Method 1005. This sample was also analyzed for polycyclic aromatic hydrocarbons (PAH). No PAH compounds were detected in this soil sample.

Due to the total methanol concentration, the soil sample collected at Boring B-2 at 0-2.5 feet was also analyzed by the SPLP Method. This test indicated the leachable amount of methanol was below the TRRP Ground Ingestion PCL.

The results of the groundwater testing revealed the numerous compounds were detected. However, none of the compounds detected exceeded any of the Action Levels or PCL's. Groundwater was found at approximately 11 feet below surface. Groundwater sampling was conducted using low flow methods in a permanent well that is still present on the property.

It is unclear whether releases at this site should be regulated under 30 TAC 334 or 30 TAC 350. A bio-diesel plant produces fuel designed for use in motor vehicles and at least a portion of the products used in the process of manufacturing are derived from petroleum products. However, it appears the majority of chemicals used in the manufacturing process are not petroleum based and are oils derived from vegetable or animal sources. These oils were detected by the HEM test.

There is likely to be no PCL or Action Level for compounds registered by the HEM test under the PST or TRRP rules. There are guidelines for petroleum mixtures as set forth in TRRP-27. However, with the possible exception of soil at Boring B-2, it appears the hydrocarbons present in soil at this site cannot be detected by the TPH 1005 or 1006 test method. Therefore, use of the petroleum mixture guidelines may not be appropriate for this site.

It is also unclear whether tanks at this site are subject to registration under 30 TAC 334. Only three of the tanks located on the site contain substances known to be derived from petroleum products. These substances are methanol and sodium methylate. All tanks on the site are above ground.

Based on the assessment, it is recommended that this report be forwarded to the Petroleum Storage Tank Program of the TCEQ for review and guidance. If it is determined that the site is subject to 30 TAC 334, then it is believed that no further action may be required regarding pollutants in soil and groundwater. If it is determined that certain tanks at the site should be registered, then appropriate forms should be filed with the TCEQ.

TCEQ Form No. 00621 and an Ecological Exclusion Checklist are attached as appendices to this report. These documents will facilitate a release determination review within the PST Program.

## **2.0 SITE CONDITIONS**

The subject site consists of approximately 15 acres of land located at 1130 County Road 239 in Gonzales, Texas. The location of the site is shown on Figure 1. An aerial photograph of the property is presented on Figure 2.

A creek forms a portion of the southern property boundary. The location of the creek is shown on Figure 2.

The site was formerly used by Ellipse Energy which produced Bio-diesel. Photographs of the site are presented in Appendix A.

A total of 18 above ground storage tanks are located outside the facility. The location of these tanks are shown on Figures 3 and 4.

Two of the outdoor tanks are marked as containing methanol and one tank is marked as containing sodium methylate. The remaining outdoor tanks are unmarked with the exception of a tank identification number. The tanks containing a known substance and the tank identification numbers are shown on Figure 4.

A concrete containment with a depth of approximately 3.5 feet surrounds the 14 tanks located immediately south of the existing building (See Figure 4). No containment is present around the four tanks located near the southeast corner of the existing building. Soil staining is present around these four tanks which suggests they have leaked fluids. The approximate extent of the soil staining is shown on Figure 5.

Additional above ground tanks are located inside the facility on a concrete slab. The majority of these indoor tanks are mounted horizontally and were apparently used for processing of bio-diesel rather than storage of feed stocks or final products. Evaluation of these indoor above ground tanks is beyond the scope of scope of this assessment. These tanks are excluded because the potential for releases to soil or groundwater is considered low. Photographs of the tanks located inside the building are presented in Appendix A.

Additional soil staining and a small stockpile of soil and waste is located approximately 230 feet south of the existing building. It appears that wastes associated with this facility may have been dumped in this area. This location of this potential dumping area is shown on Figure 3.

### **3.0 TARGETED SAMPLING LOCATIONS**

A total of six exploratory borings, designated B-1 through B-6, were drilled at the site. The location of the borings is shown on Figure 5.

Two of the borings (B-1 and B-2) were drilled near the above tanks that have no secondary containment and where visible oil staining was evident. One sample was collected at surface and one sample was collected from the capillary fringe at each of these boring locations. These samples were designed to evaluate pollutants in an apparent spill source area.

Borings B-3 through B-5 were designed to detect possible releases from the 14 tanks located in the containment area. Boring B-6 was designed to detect pollutants in a possible dumping area where a pile of soil and waste was present.

### **4.0 TARGETED ANALYTES**

The following tests were run on all soil and water samples:

- BTEX/MTBE
- TPH
- Methanol and other alcohols
- Hexane Extractable Oil and Grease (HEM)

BTEX/MTBE and TPH were run on the samples with the assumption that there could be conventional diesel fuel feed stocks or blends that would be registered by these two methods. These two tests are required by TCEQ Guidance Document RG-411 for evaluation of diesel fuel releases.

Methanol was analyzed due to the presence of two methanol tanks on the property. These two methanol tanks were located in the containment area (See Figure 5).

HEM was analyzed in an attempt to detect possible releases of vegetable oils or animal oils such as chicken fat. Based on a review of processing records, chicken fat is a known feed stock at this facility.

After review of the initial tests results, soil samples producing detectable levels of TPH were then analyzed for Polycyclic Aromatic Hydrocarbons (PAH). This screening and analysis procedure follows the guidelines set forth in TCEQ Guidance Document RG-411.

In addition, testing for methanol by the SPLP method was run on the sample which exceeded the TRRP PCL's for Methanol. The SPLP test was used to evaluate the leachability of methanol as required by TRRP guidelines.

When initially establishing the target analytes for the project, the laboratory was also asked to analyze for sodium methylate. This compound is the second known chemical agent (other than methanol) that is stored in one tank on the site.

Sodium methylate is also known as sodium methoxide (CAS No. 124-41-4). Discussions with laboratory personnel indicate this compound may or may not be capable of being detected by standard EPA methods. Furthermore, if research indicated this compound could be analyzed by standard methods, it would not be recognized as a Tentatively Identified Compound (TIC) because this compound is not within the library of compounds which have been catalogued. Hence, if this compound were to be analyzed, a special neat solution of the compound would have to be found and then a special method would have to be developed at considerable time and expense. For these reasons, an analysis of any samples for sodium methylate was not conducted.

## 5.0 SOIL SAMPLING AND TESTING

On June 30, 2014, six (6) exploratory borings were drilled at the site. The borings were drilled with a geoprobe rig that hydraulically pushed five foot long stainless steel sampling tubes with polyethylene liners. Two (2) of the borings were pushed to a maximum depth of 20 feet below surface and the other four (4) were pushed to a depth of 15 feet below surface. The samples from the five foot long tubes were collected at intervals of 2.5 feet and screened in the field with a photo-ionization detector (PID). The results of the PID screen are shown on the logs of the exploratory borings in Appendix B. The location of the borings is shown on Figure 5.

After review of the PID readings, olfactory, and visual observation of the soil samples, two (2) soil samples from each boring were analyzed for TPH, BTEX, MTBE, alcohols, and HEM. A summary of the soil test results is presented on Tables I and II.

TPH concentrations exceeded the TCEQ screening levels in one (1) of the soil samples (Boring B-2 at 0-2.5 feet). Therefore, this sample was also analyzed for polycyclic aromatic hydrocarbons (PAH). A summary of the PAH soil test results is presented on Table III.

Methanol at Boring B-2 at 0-2.5 feet also exceeded the PCL. Therefore, this sample was also analyzed for methanol using the SPLP Method. A summary of the SPLP test results is presented on Table I. The analytical laboratory reports and chain of custody records are presented in Appendix C.

## 5.0 WELL INSTALLATION AND GROUNDWATER TESTING

Boring B-2 was converted to a permanent groundwater monitoring well (MW-1). The well terminated at a depth of 15 feet below surface. This well was located in in the spill source area near the tanks without containment (See Figure 5).

The well was constructed with 2 inch diameter PVC casing and slotted well screen. After installation, groundwater in the permanent well was encountered at a depth of approximately 11 feet below surface. Screen in the well was set from 5 to 15 feet below surface. Additional details regarding the well construction are presented in Appendix B.

The well was sampled using low flow sampling techniques. These techniques involved stabilization of water quality indicators such as dissolved oxygen and turbidity prior to sampling. Field notes for the sampling are presented in Appendix B.

After stabilization, a sample from the well was analyzed for TPH, BTEX, MTBE, HEM, methanol and additional alcohol compounds. These additional compounds included allyl alcohol, ethanol, isobutyl alcohol, isopropyl alcohol, n-butanol, propanol, sec-butyl alcohol, and propargyl alcohol. A summary of the groundwater test results is presented on Tables IV and V. The analytical laboratory reports and chain of custody records are presented in Appendix C.

## 6.0 RDR AND ECOLOGICAL CHECKLIST

To facilitate a review of this report by the PST Program of the TCEQ, a Release Determination Report (Form 00621) and an Ecological Checklist has been prepared. These documents are presented in Appendix D and E, respectively.

## 7.0 CONCLUSIONS

Six (6) soil samples and one (1) water sample were analyzed during the course of the investigation. The samples were analyzed for a wide range of industrial pollutants that could potentially be released at sites with a history of bio-diesel production activities.

Three source areas were targeted during the investigation. These source areas were:

1. The area located southeast of the existing building where evidence of soil staining is present near four above ground tanks which have no secondary containment ( Boring B-1 and Boring B-2)
2. The main tank battery where 14 above ground tanks are located inside a secondary containment area (Borings B-3 through B-5).
3. An apparent waste dumping area (Boring B-6).

After review of the PID readings and visual inspection of the samples, a permanent well was installed in the area where visual soil staining is present at surface (Boring B-2). This location was chosen because it was suspected this area had the highest potential to impact groundwater. Groundwater in the well is present at a depth of approximately 11 feet below surface.

The results of the soil testing revealed the presence of HEM and in all of the soil samples. This finding indicates there are likely minor releases of vegetable or animals oils throughout the soils in the tank areas.

TPH and Methanol was only detected in soil at Boring B-2. All other soil samples did not show the presence of these constituents. This finding further suggests that vertical migration of pollutants in soil is greatest near boring B-2 and the secondary containment around the main tank battery is working as designed.

The soil sample collected at Boring B-2 which exceeded the Screening Level for TPH was also analyzed for PAH. No PAH compounds were detected in this soil sample. BTEX compounds and MTBE were also not detected in any of the soil samples.

The soil sample collected at Boring B-2 which exceeded the PCL for methanol was also analyzed by the SPLP Method. The SPLP test indicated methanol detected at levels below the groundwater ingestion PCL.

A groundwater sample was analyzed for TPH, BTEX, MTBE, HEM, methanol, and other alcohols. The results of the groundwater testing revealed the presence of several BTEX compounds at concentrations below the TCEQ Action Levels. Ethanol, methanol, and HEM were also detected at concentrations below the TCEQ Action Levels. MTBE and TPH compounds were not detected in the groundwater sample. Several of the additional alcohol compounds were identified as non-detect. However the detection limits for these particular compounds were above TCEQ Protective Concentration Levels (PCL's).

The results of the testing were compared to the Actions Levels set forth in the PST Rules (30 TAC 334) and the TRRP PCL's set forth in 30 TAC 350. Based on this comparison, only the TPH concentration in soil at Boring B-2 exceeded the Screening Levels recognized in both the PST and TRRP rules. The soil sample at Boring B-2 exceeded the TRRP Screening Level of 200 mg/kg for the soil leachate-to- groundwater pathway (GW-Soil-Ing – C12-16 aromatics). When this Screening Level is exceeded, TRRP regulations require analysis by Method 1006 to potentially screen the chemical from further development. TPH by Method 1006 was not conducted. However, the sample exceeding the TPH Screening Level was analyzed for PAH compounds in accordance with PST guidelines and no PAH compounds were detected.

It is unclear whether releases at this site should be regulated under 30 TAC 334 or 30 TAC 350. A bio-diesel plant produces fuel designed for use in motor vehicles and at least a portion of the products used in the process of manufacturing are derived from petroleum products. However, it appears the majority of chemicals used in the manufacturing process are oils derived from vegetable or animal sources. These oils were detected by the HEM test. There is no PCL or Action Level for these compounds under the PST or TRRP rules. There are guidelines for petroleum mixtures as set forth in TRRP-27. However, with the possible exception of soil at

Boring B-2, it appears the hydrocarbons present in soil at this site cannot be detected by the TPH 1005 or 1006 test method. Therefore, use of the petroleum mixture guidelines may not be appropriate for this site.

It is also unclear whether tanks at this site are subject to registration under PST Rules set forth in 30 TAC 334. Only three of the tanks stored on the site contain substances known to be derived from petroleum products. These substances are methanol and sodium methyate. All tanks on the site are above ground.

Based on the assessment, it is recommended that this report be forwarded to the Petroleum Storage Tank Program of the TCEQ for review and guidance. If it is determined that the site is subject to 30 TAC 334, then it is believed that no further action may be required regarding pollutants in soil and groundwater. If it is determined that certain tanks at the site should be registered, then appropriate forms should be filed with the agency.

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**Table I  
Summary of Soil Testing  
TPH, Alcohols, HEM**

Constituent	Residential Human Health PCL ( <sup>Tot</sup> Soil <sub>Comb</sub> ) mg/kg	Groundwater Protection Standard ( <sup>GW</sup> Soil <sub>Ing</sub> ) mg/kg	PST Action Level Surface Soil mg/kg	Units	B1 0-2.5 Ft mg/kg	Lab Flag	B1 7.5-10 Ft mg/kg	Lab Flag	B2 (MW1) 0-2.5 Ft mg/kg	Lab Flag
C6-C12 TPH	1600	65	NA	mg/kg	3.77	U	3.78	U	22.5	
>C12-C28 TPH	2300	200	0	mg/kg	4.88	J	4.04	U	487	
>C28-C35 TPH	NA	NA	0	mg/kg	4.03	U	4.04	U	4.06	U
C6-C35 TPH	NA	NA	NA	mg/kg	4.88	J	3.78	U	510	
Ethanol	1000000	1600	NA	mg/kg	1.49	U	1.45	U	2.84	J
Isobutyl alcohol	25000	16	NA	mg/kg	0.208	U	0.202	U	0.21	U
Isopropyl alcohol	16000	10	NA	mg/kg	0.254	U	0.247	U	0.257	U
Methanol	41000	24	NA	mg/kg	1.2	U	1.16	U	26.7	
n-Butanol	8200	5.3	NA	mg/kg	0.439	U	0.427	U	0.444	U
Propanol	16000	10	NA	mg/kg	5.78	U	5.61	U	5.84	U
HEM (oil and grease)	NA	NA	NA	mg/kg	69.2		39.9	J	835	
SPLP Methanol	NA	120 (GW- GW-Ing)	NA	mg/l					1.99	J
<b>NOTES</b>										
	Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's									
	Blue shaded cells indicate an analyte that was detected but below the PCL's									
	Red shaded cells indicate an analyte that exceeded the PCL for groundwater protection									
1. The U flag indicates the constituent is not detectable and the value shown is the detection limit										
2. The J flag indicates the constituent was found at levels below the calibration range										
3. The b flag indicates the constituent was found in the method blank.										
4. The Action Levels are the limits published in 30 TAC 350 for soil - (GW-Soil -Ing - Residential - 0.5 Acre )										
5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent										
6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.										

**Table I  
Summary of Soil Testing  
TPH, Alcohols, HEM**

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C6-C12 TPH	1600	65	NA	mg/kg	3.77	U	3.78	U	3.79	U
>C12-C28 TPH	2300	200	0	mg/kg	4.03	U	4.04	U	4.05	U
>C28-C35 TPH	NA	NA	0	mg/kg	4.03	U	4.04	U	4.05	U
C6-C35 TPH	NA	NA	NA	mg/kg	3.77	U	3.78	U	3.79	U
Ethanol	1000000	1600	NA	mg/kg	1.62	U	1.6	U	1.66	U
Isobutyl alcohol	25000	16	NA	mg/kg	0.226	U	0.223	U	0.231	U
Isopropyl alcohol	16000	10	NA	mg/kg	0.276	U	0.273	U	0.282	U
Methanol	41000	24	NA	mg/kg	1.3	U	1.29	U	1.33	U
n-Butanol	8200	5.3	NA	mg/kg	0.477	U	0.471	U	0.488	U
Propanol	16000	10	NA	mg/kg	6.28	U	6.2	U	6.42	U
HEM (oil and grease)	NA	NA	NA	mg/kg	148	b	59.1		39.8	J
<b>NOTES</b>	Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's									
	Blue shaded cells indicate an analyte that was detected but below the PCL's									
	Red shaded cells indicate an analyte that exceeded the PCL for groundwater protection									
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**Table I  
Summary of Soil Testing  
TPH, Alcohols, HEM**

Constituent	Residential Human Health PCL ( <sup>Tot</sup> Soil <sub>Comb</sub> ) mg/kg	Groundwater Protection Standard ( <sup>GW</sup> Soil <sub>Ing</sub> ) mg/kg	PST Action Level Surface Soil mg/kg	Units	B4 2.5-5 Ft mg/kg	Lab Flag	B4 7.5-10 Ft mg/kg	Lab Flag	B5 0-2.5 Ft mg/kg	Lab Flag
C6-C12 TPH	1600	65	NA	mg/kg	3.78	U	3.8	U	3.77	U
>C12-C28 TPH	2300	200	0	mg/kg	4.04	U	4.06	U	4.03	U
>C28-C35 TPH	NA	NA	0	mg/kg	4.04	U	4.06	U	4.03	U
C6-C35 TPH	NA	NA	NA	mg/kg	3.78	U	3.8	U	3.77	U
Ethanol	1000000	1600	NA	mg/kg	1.77	U	1.29	U	1.53	U
Isobutyl alcohol	25000	16	NA	mg/kg	0.247	U	0.18	U	0.213	U
Isopropyl alcohol	16000	10	NA	mg/kg	0.301	U	0.22	U	0.261	U
Methanol	41000	24	NA	mg/kg	1.42	U	1.04	U	1.23	U
n-Butanol	8200	5.3	NA	mg/kg	0.52	U	0.38	U	0.45	U
Propanol	16000	10	NA	mg/kg	6.85	U	5	U	5.92	U
HEM (oil and grease)	NA	NA	NA	mg/kg	49		99.8		118	
<b>NOTES</b>										
	Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's									
	Blue shaded cells indicate an analyte that was detected but below the PCL's									
	Red shaded cells indicate an analyte that exceeded the PCL for groundwater protection									
	1. The U flag indicates the constituent is not detectable and the value shown is the detection limit									
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**Table I  
Summary of Soil Testing  
TPH, Alcohols, HEM**

Constituent	Residential Human Health PCL ( <sup>Tot</sup> Soil <sub>Comb</sub> ) mg/kg	Groundwater Protection Standard ( <sup>GW</sup> Soil <sub>Ing</sub> ) mg/kg	PST Action Level Surface Soil mg/kg	Units	B5 7.5-10 Ft mg/kg	Lab Flag	B6 0-2.5 Ft mg/kg	Lab Flag	B6 7.5-10 Ft mg/kg	Lab Flag
C6-C12 TPH	1600	65	NA	mg/kg	3.8	U	3.77	U	3.77	U
>C12-C28 TPH	2300	200	0	mg/kg	4.06	U	4.03	U	4.03	U
>C28-C35 TPH	NA	NA	0	mg/kg	4.06	U	4.03	U	4.03	U
C6-C35 TPH	NA	NA	NA	mg/kg	3.8	U	3.77	U	3.77	U
Ethanol	1000000	1600	NA	mg/kg	1.72	U	1.59	U	1.67	U
Isobutyl alcohol	25000	16	NA	mg/kg	0.24	U	0.22	U	0.234	U
Isopropyl alcohol	16000	10	NA	mg/kg	0.294	U	0.271	U	0.286	U
Methanol	41000	24	NA	mg/kg	1.38	U	1.28	U	1.34	U
n-Butanol	8200	5.3	NA	mg/kg	0.507	U	0.468	U	0.493	U
Propanol	16000	10	NA	mg/kg	6.67	U	6.16	U	6.49	U
HEM (oil and grease)	NA	NA	NA	mg/kg	98		296		58.9	
<b>NOTES</b>										
Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's										
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5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent										
6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.										

**Table II  
Summary of Soil Testing  
BTEX MTBE**

Analyte	Tier 1 Soil Leachate-to-Groundwater PCL (Residential-0.5 Acre - GW-Soil-Ing)	TCEQ Residential Human Health PCL (Tier 1 - 0.5 Acre - Total Soil Combined)	TCEQ PST Action Level Surface Soil mg/kg	Units	B1 0-2.5 Ft mg/kg	Lab Flag	B1 7.5-10 Ft mg/kg	Lab Flag	B2 (MW1) 0-2.5 Ft mg/kg	Lab Flag
Benzene	0.026	120	0.12	mg/kg	0.00063	U	0.00063	U	0.00063	U
Ethylbenzene	7.6	6400	36.8	mg/kg	0.00102	U	0.00102	U	0.00102	U
Toluene	8.2	5900	39.1	mg/kg	0.00138	U	0.00138	U	0.00138	U
Xylenes, Total	120	6000	117	mg/kg	0.00113	U	0.00113	U	0.00113	U
Methyl tert-butyl ether	0.62	800	2.56	mg/kg	0.00183	U	0.00183	U	0.00183	U

**NOTES**

- Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's
  - Blue shaded cells indicate an analyte that was detected but below the PCL's
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1. The U flag indicates the constituent is not detectable and the value shown is the detection limit
  2. The J flag indicates the constituent was found at levels below the calibration range
  3. The b flag indicates the constituent was found in the method blank.
  4. The Action Levels are the limits published in 30 TAC 350 for soil - (GW-Soil -Ing - Residential - 0.5 Acre)
  5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent
  6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.

**Table II  
Summary of Soil Testing  
BTEX MTBE**

Analyte	Tier 1 Soil Leachate-to-Groundwater PCL (Residential-0.5 Acre - GW-Soil-Ing)	TCEQ Residential Human Health PCL (Tier 1 - 0.5 Acre - Total Soil Combined)	TCEQ PST Action Level Surface Soil mg/kg	Units	B2 (MW1) 7.5-10 Ft mg/kg	Lab Flag	B3 0-2.5 Ft mg/kg	Lab Flag	B3 7.5-10 Ft mg/kg	Lab Flag
Benzene	0.026	120	0.12	mg/kg	0.00063	U	0.00063	U	0.00063	U
Ethylbenzene	7.6	6400	36.8	mg/kg	0.00102	U	0.00102	U	0.00102	U
Toluene	8.2	5900	39.1	mg/kg	0.00138	U	0.00138	U	0.00138	U
Xylenes, Total	120	6000	117	mg/kg	0.00113	U	0.00113	U	0.00113	U
Methyl tert-butyl ether	0.62	800	2.56	mg/kg	0.00183	U	0.00183	U	0.00183	U

**NOTES**

- Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's
  - Blue shaded cells indicate an analyte that was detected but below the PCL's
  - Red shaded cells indicate an analyte that exceeded the PCL for groundwater protection
1. The U flag indicates the constituent is not detectable and the value shown is the detection limit
  2. The J flag indicates the constituent was found at levels below the calibration range
  3. The b flag indicates the constituent was found in the method blank.
  4. The Action Levels are the limits published in 30 TAC 350 for soil - (GW-Soil -Ing - Residential - 0.5 Acre)
  5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent
  6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.

**Table II  
Summary of Soil Testing  
BTEX MTBE**

Analyte	Tier 1 Soil Leachate-to-Groundwater PCL (Residential-0.5 Acre - GW-Soil-Ing)	TCEQ Residential Human Health PCL (Tier 1 - 0.5 Acre - Total Soil Combined)	TCEQ PST Action Level Surface Soil mg/kg	Units	B4 2.5-5 Ft mg/kg	Lab Flag	B4 7.5-10 Ft mg/kg	Lab Flag	B5 0-2.5 Ft mg/kg	Lab Flag
Benzene	0.026	120	0.12	mg/kg	0.00063	U	0.00063	U	0.00063	U
Ethylbenzene	7.6	6400	36.8	mg/kg	0.00102	U	0.00102	U	0.00102	U
Toluene	8.2	5900	39.1	mg/kg	0.00138	U	0.00138	U	0.00138	U
Xylenes, Total	120	6000	117	mg/kg	0.00113	U	0.00113	U	0.00113	U
Methyl tert-butyl ether	0.62	800	2.56	mg/kg	0.00183	U	0.00183	U	0.00183	U

**NOTES**

- Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's
  - Blue shaded cells indicate an analyte that was detected but below the PCL's
  - Red shaded cells indicate an analyte that exceeded the PCL for groundwater protection
1. The U flag indicates the constituent is not detectable and the value shown is the detection limit
  2. The J flag indicates the constituent was found at levels below the calibration range
  3. The b flag indicates the constituent was found in the method blank.
  4. The Action Levels are the limits published in 30 TAC 350 for soil - (GW-Soil -Ing - Residential - 0.5 Acre)
  5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent
  6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.

**Table II  
Summary of Soil Testing  
BTEX MTBE**

Analyte	Tier 1 Soil Leachate-to-Groundwater PCL (Residential-0.5 Acre - GW-Soil-Ing)	TCEQ Residential Human Health PCL (Tier 1 - 0.5 Acre - Total Soil Combined)	TCEQ PST Action Level Surface Soil mg/kg	Units	B5 7.5-10 Ft mg/kg	Lab Flag	B6 0-2.5 Ft mg/kg	Lab Flag	B6 7.5-10 Ft mg/kg	Lab Flag
Benzene	0.026	120	0.12	mg/kg	0.00063	U	0.00063	U	0.00063	U
Ethylbenzene	7.6	6400	36.8	mg/kg	0.00102	U	0.00102	U	0.00102	U
Toluene	8.2	5900	39.1	mg/kg	0.00138	U	0.00138	U	0.00138	U
Xylenes, Total	120	6000	117	mg/kg	0.00113	U	0.00113	U	0.00113	U
Methyl tert-butyl ether	0.62	800	2.56	mg/kg	0.00183	U	0.00183	U	0.00183	U

**NOTES**

- Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's
  - Blue shaded cells indicate an analyte that was detected but below the PCL's
  - Red shaded cells indicate an analyte that exceeded the PCL for groundwater protection
1. The U flag indicates the constituent is not detectable and the value shown is the detection limit
  2. The J flag indicates the constituent was found at levels below the calibration range
  3. The b flag indicates the constituent was found in the method blank.
  4. The PCL's are the limits published in 30 TAC 350 for soil - (GW-Soil -Ing - Residential - 0.5 Acre)
  5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent
  6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.

**Table III  
Summary of Soil Testing  
PAH Compounds**

Constituent	Human Health PCL (Tot-Soil-Comb)	Ground Water Protection PCL (Gw-Soil-Ing)	TCEQ PST Action Level Surface Soil mg/kg	B1 0-2.5 Ft mg/kg	Lab Flag	B2 (MW1) 0-2.5 Ft mg/kg	Lab Flag
Acenaphthylene	3800	410	54.7	0.00115	U	0.00584	U
Anthracene	18000	6900	2.04	0.00148	U	0.00747	U
Benzo(a)anthracene	5.7	18	0.877	0.00159	U	0.00805	U
Benzo(b)fluoranthene	5.7	60	0.877	0.00198	U	0.01	U
Benzo(k)fluoranthene	57	620	1.35	0.00172	U	0.0087	U
Benzo(g,h,i)perylene	1800	46000	0.824	0.00585	U	0.0296	U
Benzo(a)pyrene	0.56	7.6	0.0877	0.00186	U	0.0094	U
Chrysene	560	1500	1.24	0.00118	U	0.00595	U
Dibenz(a,h)anthracene	0.55	15	0.0877	0.00419	U	0.0212	U
Fluoranthene	2300	1900	25.5	0.00359	U	0.0182	U
Fluorene	2300	300	30.2	0.00272	U	0.0138	U
Indeno(1,2,3-cd)pyrene	5.7	170	0.877	0.00404	U	0.0204	U
2-Methylnaphthalene	150	2.9	NA	0.00316	U	0.016	U
Phenanthrene	1700	420	28.2	0.00571	U	0.0289	U
Pyrene	1700	1100	10.3	0.00211	U	0.0107	U
Naphthalene	220	31	99.7	0.00156	U	0.00916	U
Acenaphthene	3000	240	34.1	0.00166	U	0.00788	U
1-Methylnaphthalene	150	29	NA	0.00181	U	0.0084	U

**NOTES**

- |  |  |
|--|--|
|  | Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's |
|  | Blue shaded cells indicate an analyte that was detected but below the PCL's                        |
|  | Red shaded cells indicate an analyte that exceeded the PCL for human health                        |
- The PCL's are the groundwater ingestion protection standard (GW-GW- Ing) and human health protection standard (Tot-GW-Comb) for a 0.5 acre source area published in 30 TAC 350.
  - U -This lab flag indicates the constituent is not detectable and the value shown is the Sample Quantitation Limit (SQL).
  - J - This flag indicates the constituent was found at concentrations below the instrument calibration range.
  - b - This flag indicates the constituent was found in the method blank.
  - The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.

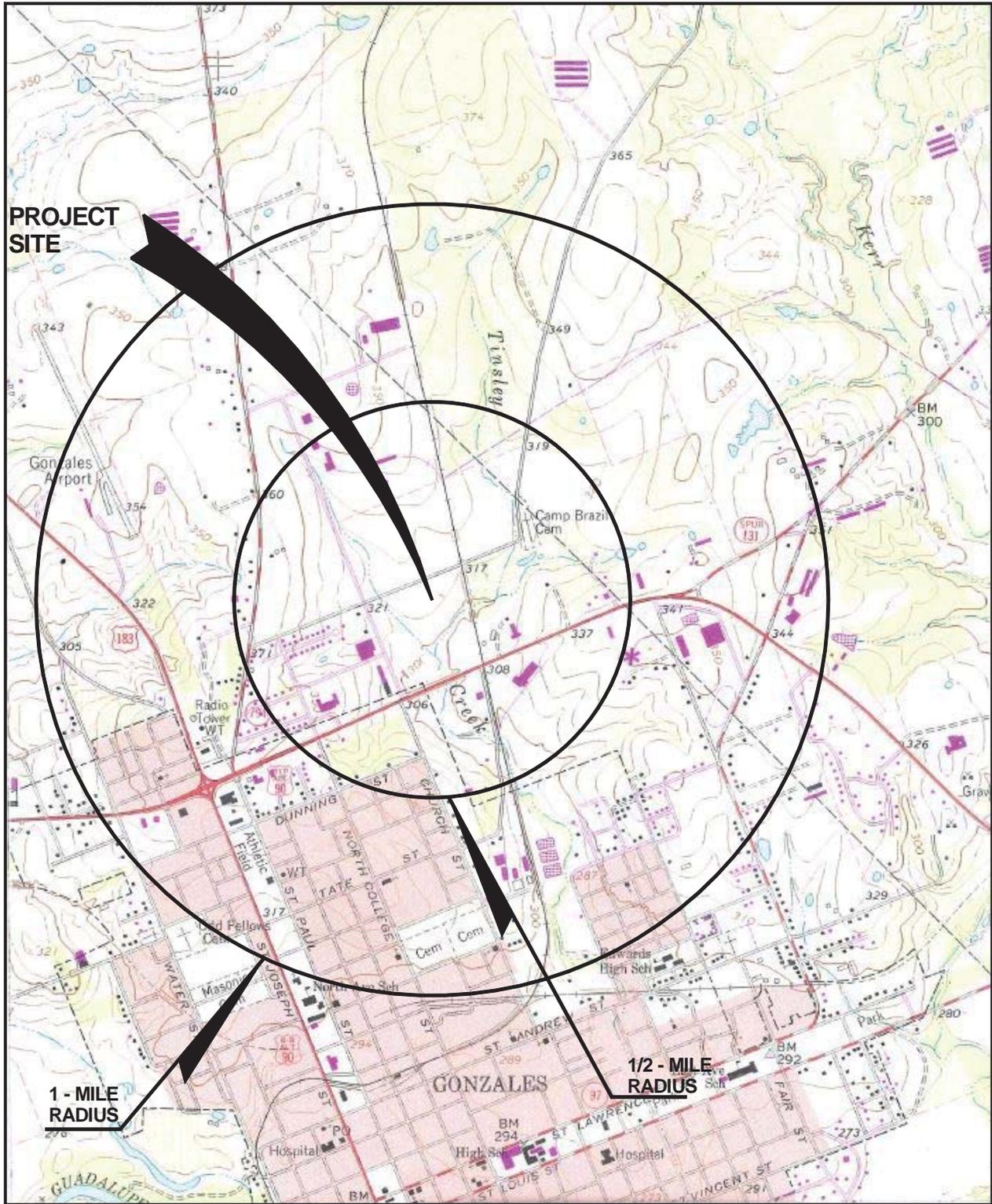
**Table IV**  
**Summary of Groundwater Testing**  
**TPH, Methanol, HEM**

Constituent	Groundwater Ingestion PCL (GW-GW <sub>Ing</sub> ) mg/L	TCEQ PST Action Level Groundwater mg/L	Units	MW-1(B2)	Lab Flag
C6-C12 TPH	0.98	NA	mg/L	0.806	U
>C12-C28 TPH	0.98	0	mg/L	0.932	U
>C28-C35 TPH	NA	0	mg/L	0.932	U
C6-C35 TPH	NA	NA	mg/L	0.806	U
HEM (oil and grease)	NA	NA	mg/L	1.8	J
Allyl alcohol	0.12	NA	mg/L	5	U
Ethanol	810	NA	mg/L	1.78	J
Isobutyl alcohol	7.3	NA	mg/L	1.26	U
Isopropyl alcohol	4.9	NA	mg/L	0.85	U
Methanol	12	NA	mg/L	3.46	J
n-Butanol	2.4	NA	mg/L	1.48	U
Propanol	0.2	NA	mg/L	0.76	U
sec-Butyl Alcohol	49	NA	mg/L	5	U
Propargyl alcohol	0.049	NA	mg/L	5	U
<b>NOTES</b>					
	Yellow shaded cells show values that are not detectable, but the detections limit exceeds the PCL's				
	Blue shaded cells indicate an analyte that was detected but below the PCL's				
	Red shaded calls indicate an analyte that exceeded the PCL for groundwater protection				
1. The U flag indicates the constituent is not detectable and the value shown is the detection limit					
2. The J flag indicates the constituent was found at levels below the calibration range					
3. The b flag indicates the constituent was found in the method blank.					
4. The PCL's are the limits published in 30 TAC 350 for soil - (GW-GW -Ing - Residential - 0.5 Acre )					
5. For metals, the background value is substituted for the critical PCL, when the PCL is more stringent					
6. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.					

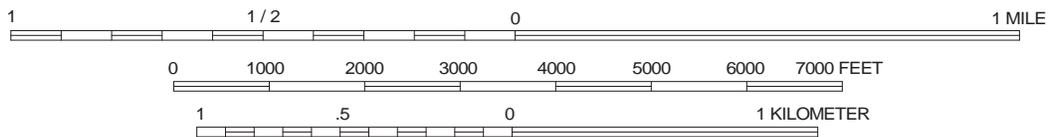
**Table V  
Summary of Groundwater Testing  
BTEX MTBE**

Analyte	TCEQ Groundwater Ingestion PCL ( <sup>GW</sup> GW <sub>Ing</sub> ) mg/L	TCEQ PST Action Level Groundwater mg/L	MW-1(B2)	Lab Flag
Benzene	0.005	0.005	0.000115	J
Ethylbenzene	0.7	0.7	0.00011	U
Toluene	1	1	0.000247	J
Xylenes, Total	10	10	0.000478	J
Methyl tert-butyl ether	0.24	0.24	0.00012	U
<b>NOTES</b>				
	Yellow shaded cells show values that are not detectable, but the detection limit exceeds the PCL's			
	Blue shaded cells indicate an analyte that was detected but below the PCL's			
	Red shaded cells indicate an analyte that exceeded the Groundwater Ingestion PCL			
1. U - This flag indicates the constituent is not detectable and the value shown is the detection limit				
2. J - This flag indicates the constituent was found at concentrations below the instrument calibration range.				
3. b - This flag indicates the constituent was found in the method blank.				
4. PCL = Protective Concentration Levels published in 30 TAC 350, The Texas Risk Reduction Program.				
5. Shaded cells indicate compounds that were detectable, but below the PCL's				
6. The PCL's are derived from the PCL table dated March 2009.				
7. The PST Action Levels are published in the PST Program Action Levels Revised August 12, 2011.				

**FIGURES**



SCALE = 1 : 24,000



CONTOUR INTERVAL 10 FEET  
DASHED LINES - 5 FOOT CONTOURS

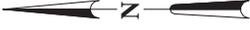
14276

**STC**

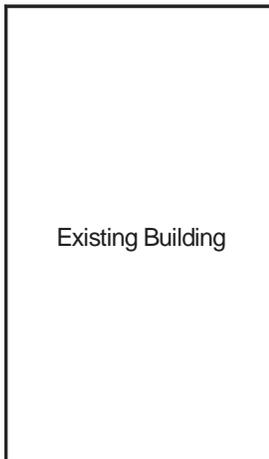
Environmental Services Inc.  
Geologists and Environmental Scientists

**SITE VICINITY MAP**

FIG. 1



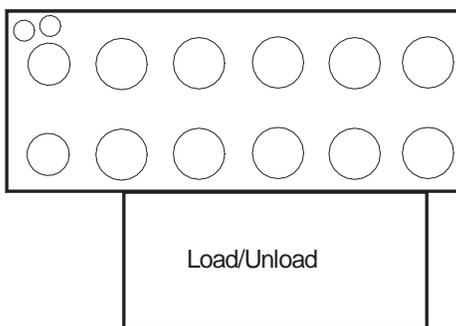
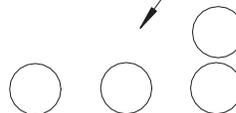
County Road 239



Existing Building



Additional tanks without secondary containment



Tank battery with secondary containment

Load/Unload

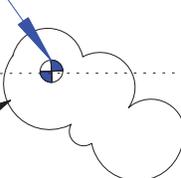


Portable Storage Unit

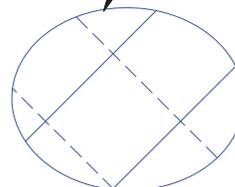
Power Line



Boring B-6



Standing Water



Dump Area



Figure 3 - Site Plan - 14276.SKF

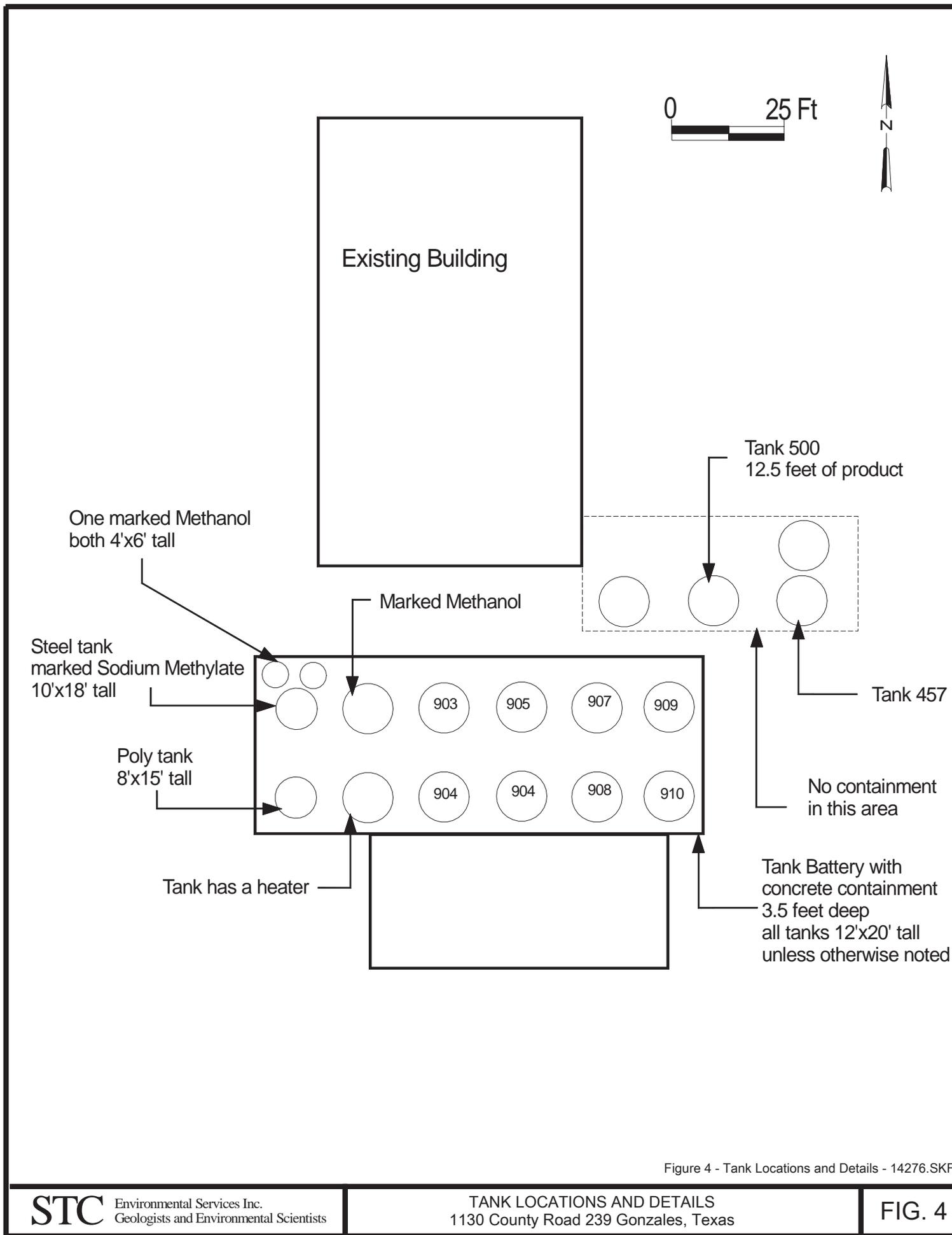


Figure 4 - Tank Locations and Details - 14276.SKF

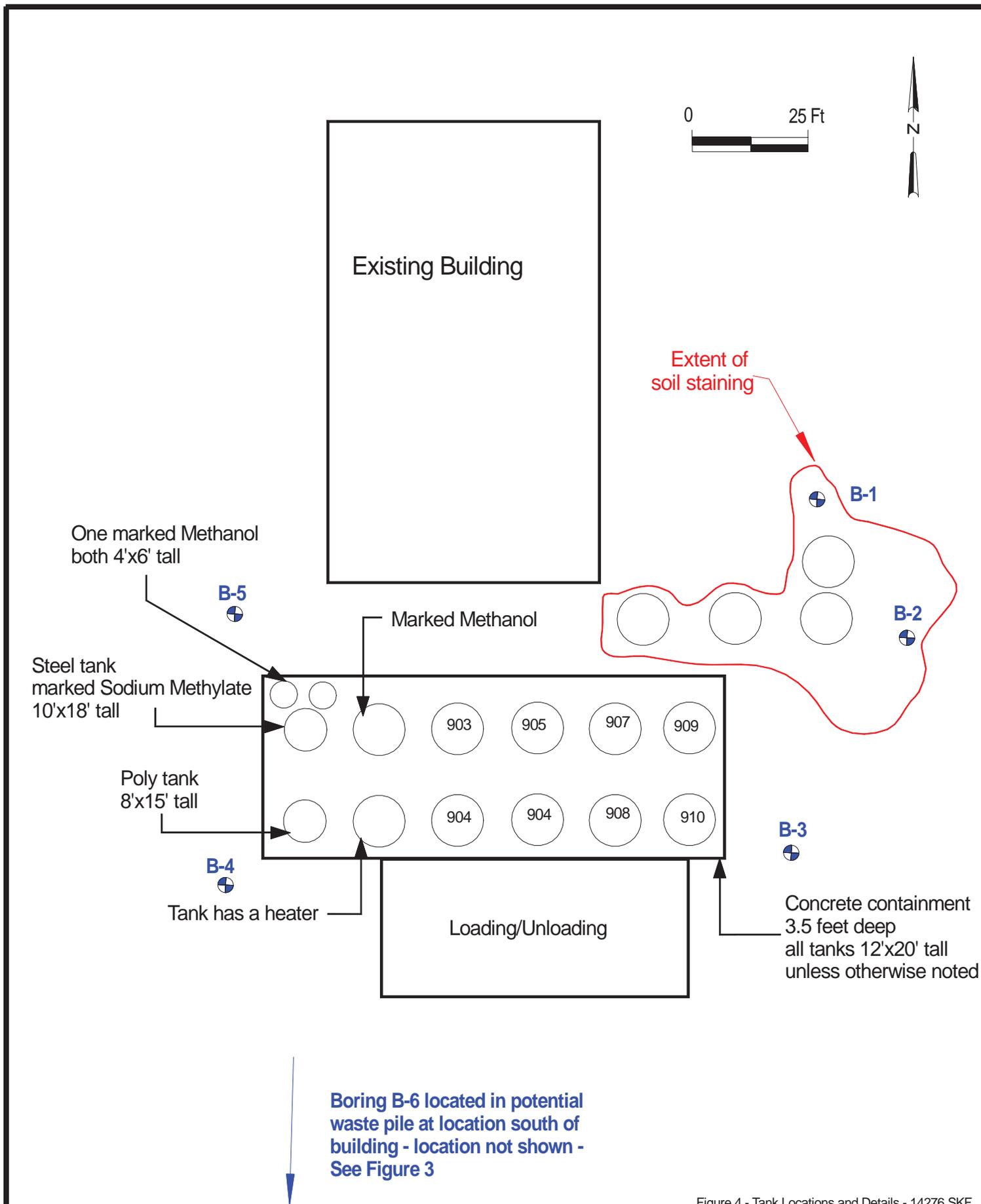


Figure 4 - Tank Locations and Details - 14276.SKF

**APPENDIX A  
SITE PHOTOGRAPHS**



**PHOTO 1: Location of Boring B1; photograph facing southwest.**



**PHOTO 2: Location of Boring B2/MW1; photograph facing northeast.**

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**PHOTO 3:** Location of Boring B3; photograph facing east.



**PHOTO 4:** Location of Boring B4; photograph facing northeast.

**STC**

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**PHOTO 5: Location of Boring B5; photograph facing northeast.**



**PHOTO 6: Location of Boring B6; photograph facing southeast.**

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**PHOTO 7:** Boring B2 was converted to Groundwater Monitoring Well MW1; photograph facing north.



**PHOTO 8:** Boring B2 was converted to Groundwater Monitoring Well MW1; photograph facing northwest.

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**PHOTO 9:** This photo shows the smaller tank marked as containing methanol located on the northwest corner of the tank battery containing 14 above ground tanks; Photograph facing southeast.



**PHOTO 10:** This photo shows the tank marked as containing sodium methylate; Photograph facing northeast.

**STC**

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**PHOTO 11:** This photo shows the large tank marked as containing methanol; Photograph facing south.



**PHOTO 12:** This photo shows the four tanks located southeast of the existing building which have no secondary containment. Soil staining is evident near these tanks. Well MW-1 was installed in the area of soil staining. Photograph facing northwest.

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**PHOTO 13:** This photo shows several tanks located inside the existing building.

**STC**

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**APPENDIX B  
BORING LOGS AND DRILLING REPORTS**

# LOG OF EXPLORATORY BORING OR MONITORING WELL

## B1

Client:		Site Address				Sheet: 1 of 1			
Don Lewis/ Pickett Fence Realty		Ellipse Energy - 1130 CR 239 - Gonzales, Texas				Monitoring well installed?			
STC Job No:	14276	Drilling Company:	Vortex			Yes		No	<input checked="" type="checkbox"/>
Site Name:	Ellipse	Driller:	Robert Joiner			Water encountered during drilling?			
Date Drilled:	6/30/2014	Drilling Method:	Geoprobe - direct push			Yes		No	<input checked="" type="checkbox"/>
Logged By:	Jahna Jahns	Sampling Method:	Split Spoon			Initial Depth:		Date:	Time
Comments: North of the group of four tanks located to the east of the existing building						Later Depth:	NA	Date:	Time
Depth (ft.)	Sample Type	Lab sample interval	PID Reading (ppm)	Recovery	Description				Depth (ft.)
1	2.5 foot core tube	0-2.5	0	100%	CLAY; black; with gravel				0.5
2									1.5
3									2.5
4	2.5 foot core tube	2.5-5	0	100%	CLAY; dark brown; with gravel				3.5
5									4.5
6									5.5
7									6.5
8	2.5 foot core tube	7.5-10	0	100%	CHERT GRAVEL				7.5
9									8.5
10									9.5
11	2.5 foot core tube	10-12.5	0	100%	CLAY; dark tan; with seams of calcite crystals				10.5
12									11.5
13									12.5
14	2.5 foot core tube	12.5-15	0	100%					13.5
15									14.5
Boring terminated at 15 feet									

**LOG OF EXPLORATORY BORING OR MONITORING WELL  
MW1/B2**

Client:	Site Address		Sheet: 1 of 1			
Don Lewis/ Pickett Fence Realty	Ellipse Energy - 1130 CR 239 - Gonzales, Texas		Monitoring well installed?			
STC Job No: 14276	Drilling Company: Vortex	Yes <input checked="" type="checkbox"/>	No			
Site Name: Ellipse	Driller: Robert Joiner	Water encountered during drilling?				
Date Drilled: 6/30/2014	Drilling Method: Geoprobe - direct push	Yes <input checked="" type="checkbox"/>	No			
Logged By: Jahna Jahns	Sampling Method: Split Spoon	Initial Depth: 14.00	Date: 6/30/2014	Time: 6:45p		
Comments: East of the group of four tanks located to the east of the existing building		Later Depth: 10.4	Date: 7/1/2014	Time: 9:30a		
Depth (ft.)	Sample Type	Lab sample interval	PID Reading (ppm)	Recovery	Description	Depth (ft.)
1	2.5 foot core tube	0-2.5	2.5	100%	BASE MATERIAL	0.5
2						1.5
3	2.5 foot core tube	2.5-5	0.4	100%	CLAYEY SILT; dark brown to black; vegetable oil odor	2.5
4						3.5
5						4.5
6	2.5 foot core tube	5-7.5	0	100%	CHERT GRAVEL	5.5
7						6.5
8	2.5 foot core tube	7.5-10	0	100%	CLAY; dark tan; with seams of calcite crystals and iron concretions	7.5
9						8.5
10						9.5
11	2.5 foot core tube	10-12.5	0	100%	SANDY CLAY; dark tan; with water at 10 feet	10.5
12						11.5
13	2.5 foot core tube	12.5-15	0	100%		12.5
14						13.5
15						14.5
Groundwater monitoring well installed at 15 feet						

## LOG OF EXPLORATORY BORING OR MONITORING WELL

**B3**

Client:		Site Address				Sheet: 1 of 1	
Don Lewis/ Pickett Fence Realty		Ellipse Energy - 1130 CR 239 - Gonzales, Texas				Monitoring well installed?	
STC Job No:	14276	Drilling Company:	Vortex		Yes	No <input checked="" type="checkbox"/>	
Site Name:	Ellipse	Driller:	Robert Joiner		Water encountered during drilling?		
Date Drilled:	6/30/2014	Drilling Method:	Geoprobe - direct push		Yes <input checked="" type="checkbox"/>	No	
Logged By:	Jahna Jahns	Sampling Method:	Split Spoon		Initial Depth:	Date: Time	
Comments: North of the 12 tank battery located south of the existing building					Later Depth:	Date: Time	
					NA		
Depth (ft.)	Sample Type	Lab sample Interval	PID Reading (ppm)	Recovery	Description	Depth (ft.)	
					BASE MATERIAL	0.5	
1	2.5 foot core tube	0-2.5	0	100%	SILT, dark brown to black; with sand lense from 1.5 feet to 2 feet	1.5	
2						2.5	
3	2.5 foot core tube	2.5-5	0	100%		3.5	
4						4.5	
5						5.5	
6	2.5 foot core tube	5-7.5	0	100%	CLAY; tan; with seams of calcite crystals	6.5	
7						7.5	
8	2.5 foot core tube	7.5-10	0	100%		8.5	
9						9.5	
10						10.5	
11	2.5 foot core tube	10-12.5	0	100%		SANDY CLAY; dark tan; with water at 10 feet	11.5
12					12.5		
13	2.5 foot core tube	12.5-15	0	100%	CLAY; tan; with seams of calcite crystals		13.5
14						14.5	
15						15.5	
16	2.5 foot core tube	15-17.5	0	100%		16.5	
17						17.5	
18	2.5 foot core tube	17.5-20	0	100%		18.5	
19					19.5		
20	Boring terminated at 20 feet						

# LOG OF EXPLORATORY BORING OR MONITORING WELL

**B4**

Client:		Site Address				Sheet: 1 of 1	
Don Lewis/ Pickett Fence Realty		Ellipse Energy - 1130 CR 239 - Gonzales, Texas				Monitoring well installed?	
STC Job No:	14276	Drilling Company:	Vortex		Yes	No <input checked="" type="checkbox"/>	
Site Name:	Ellipse	Driller:	Robert Joiner		Water encountered during drilling?		
Date Drilled:	6/30/2014	Drilling Method:	Geoprobe - direct push		Yes	No <input checked="" type="checkbox"/>	
Logged By:	Jahna Jahns	Sampling Method:	Split Spoon		Initial Depth:	Date: Time	
Comments: Southwest of the 12 tank battery located south of the existing building					Later Depth:	NA Date: Time	
Depth (ft.)	Sample Type	Lab sample interval	PID Reading (ppm)	Recovery	Description	Depth (ft.)	
1	2.5 foot core tube	0-2.5	0	15%	BASE MATERIAL	0.5	
2						1.5	
3						2.5	
4	2.5 foot core tube	2.5-5	0	100%	SAND; tan	3.5	
5						4.5	
6						5.5	
7	2.5 foot core tube	5-7.5	0	100%	CLAY; black	6.5	
8						7.5	
9						8.5	
10	2.5 foot core tube	7.5-10	0	100%	CLAY; dark tan	9.5	
11						10.5	
12						11.5	
13	2.5 foot core tube	10-12.5	0	0%	CHERT GRAVEL	12.5	
14						13.5	
15						14.5	
Boring terminated at 20 feet							

## LOG OF EXPLORATORY BORING OR MONITORING WELL

**B5**

Client:		Site Address				Sheet: 1 of 1			
Don Lewis/ Pickett Fence Realty		Ellipse Energy - 1130 CR 239 - Gonzales, Texas				Monitoring well installed?			
STC Job No:	14276	Drilling Company:	Vortex			Yes		No	<input checked="" type="checkbox"/>
Site Name:	Ellispse	Driller:	Robert Joiner			Water encountered during drilling?			
Date Drilled:	6/30/2014	Drilling Method:	Geoprobe - direct push			Yes		No	<input checked="" type="checkbox"/>
Logged By:	Jahna Jahns	Sampling Method:	Split Spoon			Initial Depth:	14.00	Date:	Time
Comments: Northwest of the 12 tank battery located south of the existing building							6/30/2014	6:45p	
						Later Depth:	NA	Date:	Time
Depth (ft.)	Sample Type	Lab sample interval	PID Reading (ppm)	Recovery	Description	Depth (ft.)			
1	2.5 foot core tube	0-2.5	0	15%	BASE MATERIAL	0.5			
2					SILT; brown	1.5			
3	2.5 foot core tube	2.5-5	0	100%	CLAY; dark brown	2.5			
4					SANDY CLAY; dark tan	3.5			
5					CLAY; dark brown	4.5			
6	2.5 foot core tube	5-7.5	0	100%	CLAY; tan	5.5			
7						6.5			
8	7.5								
9	8.5								
10	9.5								
11	10.5								
12	2.5 foot core tube	10-12.5	0	0%		CHERT GRAVEL	11.5		
13	2.5 foot core tube	12.5-15	0	100%	CLAY, tan; with seams of calcite crystals	12.5			
14						13.5			
15						14.5			
Boring terminated at 15 feet									

## LOG OF EXPLORATORY BORING OR MONITORING WELL

**B6**

Client:		Site Address				Sheet: 1 of 1	
Don Lewis/ Pickett Fence Realty		Ellipse Energy - 1130 CR 239 - Gonzales, Texas				Monitoring well installed?	
STC Job No:	14276	Drilling Company:	Vortex		Yes	No <input checked="" type="checkbox"/>	
Site Name:	Ellipse	Driller:	Robert Joiner		Water encountered during drilling?		
Date Drilled:	6/30/2014	Drilling Method:	Geoprobe - direct push		Yes <input checked="" type="checkbox"/>	No	
Logged By:	Jahna Jahns	Sampling Method:	Split Spoon		Initial Depth:	Date: Time	
Comments: In the field located south of the existing building					Later Depth:	Date: Time	
					NA		

Depth (ft.)	Sample Type	Lab sample Interval	PID Reading (ppm)	Recovery	Description	Depth (ft.)
1	2.5 foot core tube	0-2.5	0	100%	CLAY; dark brown with black staining; with gravel	0.5
2						1.5
3						2.5
4	2.5 foot core tube	2.5-5	0	100%	CLAY; tan and gray; with chert nodules and gravel	3.5
5						4.5
6						5.5
7	2.5 foot core tube	5-7.5	0	100%	SAND; dark tan	6.5
8						7.5
9						8.5
10	2.5 foot core tube	7.5-10	0	100%	SANDY CLAY; dark tan; water at 10 feet	9.5
11						10.5
12						11.5
13	2.5 foot core tube	10-12.5	0	100%	CLAY; tan; with seams of calcite crystals and iron staining	12.5
14						13.5
15						14.5
16	2.5 foot core tube	12.5-15	0	100%		15.5
17						16.5
18						17.5
19	2.5 foot core tube	15-17.5	0	100%		18.5
20						19.5
Boring terminated at 20 feet						

## STATE OF TEXAS WELL REPORT for Tracking #367863

Owner:	Don Lewis/Pickett Fence Properties	Owner Well #:	B1- <del>last</del> <b>BI</b>
Address:	1511 South Texas Avenue #116 College Station , TX 77840	Grid #:	67-29-5
Well Location:	1130 CO RD 239 (Stieren St) Gonzales , TX 78629	Latitude:	29° 32' 59" N
Well County:	Gonzales	Longitude:	097° 26' 11" W
Elevation:	No Data	GPS Brand Used:	Google Earth
Type of Work:	New Well	Proposed Use:	Environmental Soil Boring

Drilling Date: Started: 6/30/2014  
Completed: 6/30/2014

Diameter of Hole: Diameter: 3 in From Surface To 15 ft

Drilling Method: Driven

Borehole Completion: Other: plugged

Annular Seal Data: 1st Interval: From 0 ft to 2 ft with 1 Bag Concrete (#sacks and material)  
2nd Interval: From 2 ft to 15 ft with 0.91 Benonite (#sacks and material)  
3rd Interval: No Data  
Method Used: HAND  
Cemented By: Vortex Drilling Inc  
Distance to Septic Field or other Concentrated Contamination: No Data  
Distance to Property Line: No Data  
Method of Verification: No Data  
Approved by Variance: No Data

Surface Completion: Alternative Procedure Used

Water Level: Static level: No Data  
Artesian flow: No Data

Packers: N/A

Plugging Info: Casing left in well: Cement/Bentonite left in well:  
From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used  
N/A

Type Of Pump: No Data

Well Tests: No Data

Water Quality: Type of Water: No Data  
Depth of Strata: No Data  
Chemical Analysis Made: No Data  
Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

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 log(s) being returned for completion and resubmittal.

Company Information:

Vortex Drilling Inc  
 4412 Bluemel Road  
 San Antonio , TX 78240

Driller License Number: 54776  
 Licensed Well Driller Signature: Robert Joiner  
 Registered Driller Apprentice Signature: Eddie Valle  
 Apprentice Registration Number: No Data  
 Comments: No Data

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Please include the report's Tracking number (Tracking #367863) on your written request.

Texas Department of Licensing & Regulation  
 P.O. Box 12157  
 Austin, TX 78711  
 (512) 463-7880

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft) Description  
 0-4.5 CLAY, black with gravel.  
 4.5-8, CLAY, dark brown, with gravel.  
 8-10 CHERT, Gravel.  
 10-15 CLAY, dark tan, with seams of calcite crystals.

Dia.	New/Used	Type	Setting From/To
N/A			

## STATE OF TEXAS WELL REPORT for Tracking #367868

Owner:	Don Lewis/Pickett Fence Properties	Owner Well #:	MW1/B2
Address:	1511 South Texas Avenue #116 College Station , TX 77840	Grid #:	67-29-5
Well Location:	1130 CO RD 239 (Stieren St) Gonzales , TX 78629	Latitude:	29° 32' 59" N
Well County:	Gonzales	Longitude:	097° 26' 11" W
Elevation:	No Data	GPS Brand Used:	Google Earth
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: 6/30/2014  
Completed: 6/30/2014

Diameter of Hole: Diameter: 4 in From Surface To 15 ft

Drilling Method: Driven

Borehole Completion: Gravel Packed From: 15 ft to 8 ft  
Gravel Pack Size: 12/20

Annular Seal Data: 1st Interval: From 0 ft to 2 ft with 1 Bag Concrete (#sacks and material)  
2nd Interval: From 2 ft to 8 ft with 0.42 Benonite (#sacks and material)  
3rd Interval: No Data  
Method Used: HAND  
Cemented By: Vortex Drilling Inc  
Distance to Septic Field or other Concentrated Contamination: No Data  
Distance to Property Line: No Data  
Method of Verification: No Data  
Approved by Variance: No Data

Surface Completion: Surface Slab Installed

Water Level: Static level: No Data  
Artesian flow: No Data

Packers: N/A

Plugging Info: Casing left in well: Cement/Bentonite left in well:  
From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used  
N/A

Type Of Pump: No Data

Well Tests: No Data

Water Quality: Type of Water: Nonpotable  
Depth of Strata: 10 ft.  
Chemical Analysis Made: No  
Did the driller knowingly penetrate any strata which contained undesirable 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 log(s) being returned for completion and resubmittal.

Company Information:

Vortex Drilling Inc  
 4412 Bluemel Road  
 San Antonio , TX 78240

Driller License Number: 54776  
 Licensed Well Driller Signature: Robert Joiner  
 Registered Driller Apprentice Signature: Eddie Valle  
 Apprentice Registration Number: No Data  
 Comments: No Data

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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Texas Department of Licensing & Regulation  
 P.O. Box 12157  
 Austin, TX 78711  
 (512) 463-7880

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft)	Description
0-1	Base Material.
1-5	CLAYEY SILT; dark brown to black; vegetable oil odor.
5-5.5	CHERT GRAVEL.
5.5-10	CLAY, dark tan, with seams of calcite crystals and iron concretions.
10-15	SANDY CLAY; dark tan, with water at 10'.

Dia.	New/Used	Type	Setting From/To
2"	New	40 PVC .010	15' to 10' screen.
2"	New	40 PVC	10' to 0 Riser.
2"			Top and Bottom Cap.

## STATE OF TEXAS WELL REPORT for Tracking #367860

Owner:	Don Lewis/Pickett Fence Properties	Owner Well #:	<del>B4 South</del> <sup>B3</sup>
Address:	1511 South Texas Avenue #116 College Station , TX 77840	Grid #:	67-29-5
Well Location:	1130 CO RD 239 (Stieren St) Gonzales , TX 78629	Latitude:	29° 32' 59" N
Well County:	Gonzales	Longitude:	097° 26' 11" W
Elevation:	No Data	GPS Brand Used:	Google Earth
Type of Work:	New Well	Proposed Use:	Environmental Soil Boring

Drilling Date: Started: 6/30/2014  
Completed: 6/30/2014

Diameter of Hole: Diameter: 3 in From Surface To 20 ft

Drilling Method: Driven

Borehole Completion: Other: plugged

Annular Seal Data: 1st Interval: From 0 ft to 2 ft with 1 Bag Concrete (#sacks and material)  
2nd Interval: From 2 ft to 20 ft with 1.26 Benonite (#sacks and material)  
3rd Interval: No Data  
Method Used: HAND  
Cemented By: Vortex Drilling Inc  
Distance to Septic Field or other Concentrated Contamination: No Data  
Distance to Property Line: No Data  
Method of Verification: No Data  
Approved by Variance: No Data

Surface Completion: Alternative Procedure Used

Water Level: Static level: No Data  
Artesian flow: No Data

Packers: N/A

Plugging Info: Casing left in well: Cement/Bentonite left in well:  
From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used  
N/A

Type Of Pump: No Data

Well Tests: No Data

Water Quality: Type of Water: Nonpotable  
Depth of Strata: 10 ft.  
Chemical Analysis Made: No  
Did the driller knowingly penetrate any strata which contained undesirable 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 log(s) being returned for completion and resubmittal.

Company Information:

Vortex Drilling Inc  
4412 Bluemel Road  
San Antonio , TX 78240

Driller License Number: 54776  
Licensed Well Driller Signature: Robert Joiner  
Registered Driller Apprentice Signature: Eddie Valle  
Apprentice Registration Number: No Data  
Comments: No Data

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**  
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Austin, TX 78711  
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL	CASING, BLANK PIPE & WELL SCREEN DATA			
From (ft) To (ft) Description	Dia.	New/Used	Type	Setting From/To
0-.5 Base material.	N/A			
.5-5 SILT, dark brown to black, with sand lense from 1.5' to 2'.				
5-10 CLAY, tan with seams of calcite crystals.				
10-13 SANDY CLAY, dark tan with water at 10'.				
13-20 CLAY, tan, with seams of calcite crystals.				

## STATE OF TEXAS WELL REPORT for Tracking #367934

Owner:	Don Lewis/Pickett Fence Properties	Owner Well #:	B4-SW <b>B4</b>
Address:	1511 South Texas Avenue #116 College Station , TX 77840	Grid #:	67-29-5
Well Location:	1130 CO RD 239 (Stieren St) Gonzales , TX 78629	Latitude:	29° 32' 59" N
Well County:	Gonzales	Longitude:	097° 26' 11" W
Elevation:	No Data	GPS Brand Used:	Google Earth
Type of Work:	New Well	Proposed Use:	Environmental Soil Boring

Drilling Date: Started: 6/30/2014  
Completed: 6/30/2014

Diameter of Hole: Diameter: 3 in From Surface To 20 ft

Drilling Method: Driven

Borehole Completion: Other: PLUGGED

Annular Seal Data: 1st Interval: From 0 ft to 2 ft with 1 Bag Concrete (#sacks and material)  
2nd Interval: From 2 ft to 20 ft with 1.26 BENTONITE (#sacks and material)  
3rd Interval: No Data  
Method Used: HAND  
Cemented By: Vortex Drilling Inc  
Distance to Septic Field or other Concentrated Contamination: No Data  
Distance to Property Line: No Data  
Method of Verification: No Data  
Approved by Variance: No Data

Surface Completion: Alternative Procedure Used

Water Level: Static level: No Data  
Artesian flow: No Data

Packers: N/A

Plugging Info: Casing left in well: Cement/Bentonite left in well:  
From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used  
N/A

Type Of Pump: No Data

Well Tests: No Data

Water Quality: Type of Water: No Data  
Depth of Strata: No Data  
Chemical Analysis Made: No  
Did the driller knowingly penetrate any strata which contained undesirable 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 log(s) being returned for completion and resubmittal.

Company Information:

Vortex Drilling Inc  
 4412 Bluemel Road  
 San Antonio , TX 78240

Driller License Number: 54776  
 Licensed Well Driller Signature: Robert Joiner  
 Registered Driller Apprentice Signature: Eddie Valle  
 Apprentice Registration Number: No Data  
 Comments: No Data

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 (512) 463-7880

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft) To (ft)	Description	Dia.	New/Used	Type	Setting From/To
0-2.5	BASE MATERIAL.				
2.5-3.5	SAND; Tan				
3.5-4.5	CLAY; Black				
4.5-9	CLAY; dark tan				
9-9.5	CHERT GRAVEL				
10.5-14.5	SANDY CLAY; dark tan				
14.5-20	SANDY CLAY; dark tan				

## STATE OF TEXAS WELL REPORT for Tracking #367864

Owner:	Don Lewis/Pickett Fence Properties	Owner Well #:	<b>B5</b> <del>B4-11W</del>
Address:	1511 South Texas Avenue #116 College Station , TX 77840	Grid #:	67-29-5
Well Location:	1130 CO RD 239 (Stieren St) Gonzales , TX 78629	Latitude:	29° 32' 59" N
Well County:	Gonzales	Longitude:	097° 26' 11" W
Elevation:	No Data	GPS Brand Used:	Google Earth
Type of Work:	New Well	Proposed Use:	Environmental Soil Boring

Drilling Date: Started: 6/30/2014  
Completed: 6/30/2014

Diameter of Hole: Diameter: 3 in From Surface To 15 ft

Drilling Method: Driven

Borehole Completion: Other: plugged

Annular Seal Data: 1st Interval: From 0 ft to 2 ft with 1 Bag Concrete (#sacks and material)  
2nd Interval: From 2 ft to 15 ft with 0.91 Benonite (#sacks and material)  
3rd Interval: No Data  
Method Used: HAND  
Cemented By: Vortex Drilling Inc  
Distance to Septic Field or other Concentrated Contamination: No Data  
Distance to Property Line: No Data  
Method of Verification: No Data  
Approved by Variance: No Data

Surface Completion: Alternative Procedure Used

Water Level: Static level: No Data  
Artesian flow: No Data

Packers: N/A

Plugging Info: Casing left in well: Cement/Bentonite left in well:  
From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used  
N/A

Type Of Pump: No Data

Well Tests: No Data

Water Quality: Type of Water: No Data  
Depth of Strata: No Data  
Chemical Analysis Made: No Data  
Did the driller knowingly penetrate any strata which contained undesirable constituents: No Data

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 log(s) being returned for completion and resubmittal.

Company Information:

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 4412 Bluemel Road  
 San Antonio , TX 78240

Driller License Number: 54776  
 Licensed Well Driller Signature: Robert Joiner  
 Registered Driller Apprentice Signature: Eddie Valle  
 Apprentice Registration Number: No Data  
 Comments: No Data

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DESC. & COLOR OF FORMATION MATERIAL		CASING, BLANK PIPE & WELL SCREEN DATA			
From (ft)	To (ft) Description	Dia.	New/Used	Type	Setting From/To
0-1	Base Material.				N/A
1-1.5	SILT, brown.				
1.5-3	CLAY, dark brown.				
3-4	SANDY CLAY, dark tan .				
4-5	CLAY; dark brown.				
5-11	CLAY; tan.				
11-12	CHERT GRAVEL.				
12-15	CLAY, tan, with seams of calcite crystals.				

STATE OF TEXAS WELL REPORT for Tracking #367865			
Owner:	Don Lewis/Pickett Fence Properties	Owner Well #:	B6
Address:	1511 South Texas Avenue #116 College Station , TX 77840	Grid #:	67-29-5
Well Location:	1130 CO RD 239 (Stieren St) Gonzales , TX 78629	Latitude:	29° 32' 59" N
Well County:	Gonzales	Longitude:	097° 26' 11" W
Elevation:	No Data	GPS Brand Used:	Google Earth
Type of Work:	New Well	Proposed Use:	Environmental Soil Boring

Drilling Date: Started: 6/30/2014  
Completed: 6/30/2014

Diameter of Hole: Diameter: 3 in From Surface To 20 ft

Drilling Method: Driven

Borehole Completion: Other: plugged

Annular Seal Data: 1st Interval: From 0 ft to 2 ft with 1 Bag Concrete (#sacks and material)  
2nd Interval: From 2 ft to 20 ft with 1.26 Benonite (#sacks and material)  
3rd Interval: No Data  
Method Used: HAND  
Cemented By: Vortex Drilling Inc  
Distance to Septic Field or other Concentrated Contamination: No Data  
Distance to Property Line: No Data  
Method of Verification: No Data  
Approved by Variance: No Data

Surface Completion: Alternative Procedure Used

Water Level: Static level: No Data  
Artesian flow: No Data

Packers: N/A

Plugging Info: Casing left in well: Cement/Bentonite left in well:  
From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used  
N/A

Type Of Pump: No Data

Well Tests: No Data

Water Quality: Type of Water: Nonpotable  
Depth of Strata: 10 ft.  
Chemical Analysis Made: No  
Did the driller knowingly penetrate any strata which contained undesirable 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 log(s) being returned for completion and resubmittal.

Company Information:

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 4412 Bluemel Road  
 San Antonio , TX 78240

Driller License Number: 54776  
 Licensed Well Driller Signature: Robert Joiner  
 Registered Driller Apprentice Signature: Eddie Valle  
 Apprentice Registration Number: No Data  
 Comments: No Data

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 Austin, TX 78711  
 (512) 463-7880

**DESC. & COLOR OF FORMATION MATERIAL**

**CASING, BLANK PIPE & WELL SCREEN DATA**

From (ft)	To (ft)	Description
0-3		CLAY, dark brown with black staining; with gravel.
3-7		CLAY; tan and gray, with chert nodules and gravel.
7-7.5		SAND, dark tan.
7.5-11		SANDY CLAY, dark tan, water at 10'.
11-20		CLAY; tan, with seams of calcite crystals and iron staining.
3-4		SANDY CLAY, dark tan .
4-5		CLAY; dark brown.
5-11		CLAY; tan.
11-12		CHERT GRAVEL.
12-20		CLAY, tan, with seams of calcite crystals.

Dia.	New/Used	Type	Setting From/To
			N/A



**APPENDIX C  
ANALYTICAL LABORATORY REPORTS AND  
CHAIN-OF-CUSTODY RECORDS**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Houston  
6310 Rothway Street  
Houston, TX 77040  
Tel: (713)690-4444

TestAmerica Job ID: 600-94898-1  
Client Project/Site: Don Lewis

For:  
STC Environmental Services  
4754 Research Drive  
San Antonio, Texas 78240

Attn: Craig Tribley



Authorized for release by:  
7/15/2014 3:52:22 PM

Sophia Shah, Project Management Assistant I  
[sophia.shah@testamericainc.com](mailto:sophia.shah@testamericainc.com)

Designee for

Sachin Kudchadkar, Senior Project Manager  
(713)690-4444  
[sachin.kudchadkar@testamericainc.com](mailto:sachin.kudchadkar@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Appendix A

## Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-94898-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**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.

Sophia Shah

Name (printed)



Signature

7/15/2014

Date

Project Management Assistant

Official Title (printed)

# Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/15/2014
Project Name:	Don Lewis	Laboratory Job Number:	600-94898-1
Reviewer Name:	Sachin G Kudchadkar		

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	<b>Chain-of-custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test reports</b>					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R04B
R5	OI	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R07C
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?		X			R10B
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/15/2014
Project Name:	Don Lewis	Laboratory Job Number:	600-94898-1
Reviewer Name:	Sachin G Kudchadkar		

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	<b>Mass spectral tuning</b>					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw data (NELAC Section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	<b>Tentatively identified compounds (TICs)</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) results</b>					
		Were percent recoveries within method QC limits?			X		
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	<b>Proficiency test reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/validation documentation for methods (NELAC Chapter 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory standard operating procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

# Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	7/15/2014
Project Name:	Don Lewis	Laboratory Job Number:	600-94898-1
Reviewer Name:	Sachin G Kudchadkar		

ER # <sup>1</sup>	Description
R04B	Method 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits (one; 2,4,6-Tribromophenol): 600-94501-24 MS and 600-94501-24 MSD. These results have been reported and qualified.
R07C	Method 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 138805 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.
R10B	Method 8270C LL: The following sample(s) was diluted due to color, odor, appearance, viscosity, etc: 600-94501-24 MSD. Elevated reporting limits (RL) are provided. Method 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix: 600-94898-3. Elevated reporting limits (RLs) are provided.
	<ol style="list-style-type: none"> <li>Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</li> <li>O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</li> <li>NA = Not applicable;</li> <li>NR = Not reviewed;</li> <li>ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</li> </ol>



**Matrix:** Water  
**Method:** 8015B\_DAI  
**Prep Method:** Pass  
**Date Analyzed:** 2/28/2014  
**Job #:** 600-87854  
**TALS Batch:** 128464  
**Units:** mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MLQ
2,2'-Oxybisethanol	FID00	2.990	3.000	2.395	5
2-Butoxyethanol	FID10	1.670	3.000	3.716	5
2-Ethoxyethanol	FID10	5.000	3.000	3.807	5
2-Methoxyethanol	FID10	5.000	3.000	3.837	5
Ethanol	FID00	0.560	1.000	1.014	5
Ethylene glycol	FID00	3.114	3.000	3.048	5
Isobutyl alcohol	FID00	1.260	1.000	1.293	5
Isopropyl alcohol	FID00	0.850	1.000	1.152	5
Methanol	FID00	0.910	1.000	1.062	5
n-Butanol	FID00	1.480	1.000	1.179	5
Propanol	FID00	0.760	1.000	1.289	5
Propylene glycol	FID00	1.344	3.000	2.886	5
sec-Butyl Alcohol	FID00	5.000	1.000	1.089	5
Triethylene Glycol	FID00	5.000	3.000	3.349	5



**Matrix:** Solid  
**Method:** 8260B  
**Prep Method:** No Prep  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-88537  
**TALS Batch:** 130190  
**Units:** ug/Kg

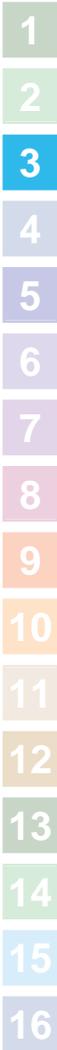
Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS09	1.400	5.000	4.935	5
1,1,1-Trichloroethane	VOAMS09	0.740	2.500	2.631	5
1,1,2,2-Tetrachloroethane	VOAMS09	0.870	2.500	3.401	5
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS09	1.440	5.000	3.870	5
1,1,2-Trichloroethane	VOAMS09	0.730	2.500	3.098	40
1,1-Dichloroethane	VOAMS09	0.870	2.500	2.576	5
1,1-Dichloroethene	VOAMS09	1.220	2.500	2.817	5
1,1-Dichloropropene	VOAMS09	0.650	2.500	2.393	5
1,2,3-Trichlorobenzene	VOAMS09	0.620	2.500	3.456	5
1,2,3-Trichloropropane	VOAMS09	1.310	5.000	5.608	5
1,2,3-Trimethylbenzene	VOAMS09	1.820	5.000	4.815	5
1,2,4-Trichlorobenzene	VOAMS09	1.970	5.000	5.000	5
1,2,4-Trimethylbenzene	VOAMS09	0.920	2.500	3.023	5
1,2-Dibromo-3-Chloropropane	VOAMS09	2.440	5.000	5.298	5
1,2-Dichlorobenzene	VOAMS09	0.800	2.500	3.526	5
1,2-Dichloroethane	VOAMS09	0.900	2.500	2.524	5
1,2-Dichloroethene, Total	VOAMS09	1.900	5.000	5.400	10
1,2-Dichloropropane	VOAMS09	0.710	2.500	2.474	5
1,3,5-Trichlorobenzene	VOAMS09	10.000	2.500	3.327	5
1,3,5-Trimethylbenzene	VOAMS09	1.600	5.000	4.673	5
1,3-Dichlorobenzene	VOAMS09	0.710	2.500	3.357	5
1,3-Dichloropropane	VOAMS09	0.630	2.500	3.250	5
1,4-Dichlorobenzene	VOAMS09	0.660	2.500	3.463	5
1,4-Dioxane	VOAMS09	62.070	100.000	91.825	500
2,2-Dichloropropane	VOAMS09	1.820	5.000	5.323	5
2-Butanone (MEK)	VOAMS09	1.900	5.000	7.184	10
2-Chloro-1,3-butadiene	VOAMS09	2.710	5.000	3.762	5
2-Chloroethyl vinyl ether	VOAMS09	0.980	5.000	5.535	10
2-Chlorotoluene	VOAMS09	0.680	2.500	3.335	5
2-Hexanone	VOAMS09	1.010	5.000	6.150	10
2-Methyl-2-propanol	VOAMS09	10.000	25.000	81.862	50
2-Nitropropane	VOAMS09	24.290	5.000	5.192	5
3-Chloro-1-propene	VOAMS09	1.390	5.000	3.826	5
4-Chlorotoluene	VOAMS09	0.830	2.500	3.101	5
4-Isopropyltoluene	VOAMS09	1.020	2.500	3.093	5
4-Methyl-2-pentanone (MIBK)	VOAMS09	1.470	5.000	4.944	10
Acetone	VOAMS09	1.660	5.000	10.353	10
Acetonitrile	VOAMS09	1.390	25.000	21.812	10
Acrolein	VOAMS09	6.230	12.500	13.159	25
Acrylonitrile	VOAMS09	5.820	25.000	27.062	25
Benzene	VOAMS09	0.630	2.500	2.585	5
Benzyl chloride	VOAMS09	2.140	5.000	4.456	5
Bromobenzene	VOAMS09	0.990	2.500	3.328	5
Bromoform	VOAMS09	1.370	5.000	4.937	5
Bromomethane	VOAMS09	0.830	2.500	2.396	10
Butadiene	VOAMS09	1.250	5.000	2.328	5
Carbon disulfide	VOAMS09	0.550	2.500	2.522	10
Carbon tetrachloride	VOAMS09	1.130	2.500	2.365	5
Chlorobenzene	VOAMS09	0.960	2.500	3.162	5
Chlorobromomethane	VOAMS09	1.780	5.000	4.698	5
Chlorodibromomethane	VOAMS09	0.940	2.500	3.030	5

**Matrix:** Solid  
**Method:** 8260B  
**Prep Method:** No Prep  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-88537  
**TALS Batch:** 130190  
**Units:** ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chloroethane	VOAMS09	1.400	5.000	3.451	10
Chloroform	VOAMS09	0.660	2.500	2.970	5
Chloromethane	VOAMS09	1.660	5.000	2.349	10
cis-1,2-Dichloroethene	VOAMS09	0.830	2.500	2.738	5
cis-1,3-Dichloropropene	VOAMS09	0.540	2.500	2.896	5
Cyclohexane	VOAMS09	1.920	5.000	3.814	5
Cyclohexanone	VOAMS09	134.780	250.000	269.241	250
Dibromomethane	VOAMS09	0.750	2.500	2.652	5
Dichlorobromomethane	VOAMS09	0.660	2.500	2.450	5
Dichlorodifluoromethane	VOAMS09	1.540	5.000	1.560	5
Ethyl acetate	VOAMS09	2.810	10.000	6.673	5
Ethyl acrylate	VOAMS09	10.660	2.500	2.216	10
Ethyl ether	VOAMS09	1.950	5.000	4.119	5
Ethyl methacrylate	VOAMS09	1.660	5.000	4.617	5
Ethylbenzene	VOAMS09	1.020	2.500	3.066	5
Ethylene Dibromide	VOAMS09	1.020	2.500	3.098	5
Hexachlorobutadiene	VOAMS09	1.130	2.500	3.317	5
Hexane	VOAMS09	1.230	2.500	5.564	5
Iodomethane	VOAMS09	2.500	5.000	4.528	5
Isobutyl alcohol	VOAMS09	17.160	62.500	87.299	50
Isooctane	VOAMS09	10.000	2.500	2.367	5
Isopropyl alcohol	VOAMS09	27.470	50.000	54.421	100
Isopropyl ether	VOAMS09	1.760	5.000	3.602	5
Isopropylbenzene	VOAMS09	0.920	2.500	3.078	5
Methacrylonitrile	VOAMS09	5.000	25.000	25.095	5
Methyl acetate	VOAMS09	2.910	12.500	12.907	5
Methyl methacrylate	VOAMS09	2.860	10.000	6.888	10
Methyl tert-butyl ether	VOAMS09	1.830	5.000	4.082	5
Methylcyclohexane	VOAMS09	1.460	5.000	3.885	5
Methylene Chloride	VOAMS09	2.190	5.000	12.713	10
m-Xylene & p-Xylene	VOAMS09	1.520	5.000	4.840	10
Naphthalene	VOAMS09	2.370	5.000	5.154	10
n-Butyl acetate	VOAMS09	2.370	5.000	4.374	5
n-Butylbenzene	VOAMS09	0.580	2.500	2.983	5
n-Heptane	VOAMS09	10.000	2.500	2.148	5
N-Propylbenzene	VOAMS09	0.950	2.500	3.017	5
o-Xylene	VOAMS09	1.130	2.500	3.088	5
Pentachloroethane	VOAMS09	5.000	5.000	6.191	5
Propionitrile	VOAMS09	2.360	25.000	37.976	5
sec-Butylbenzene	VOAMS09	0.700	2.500	3.030	5
Styrene	VOAMS09	0.710	2.500	2.834	5
tert-Butylbenzene	VOAMS09	0.950	2.500	3.037	5
Tetrachloroethene	VOAMS09	0.710	2.500	2.844	5
Tetrahydrofuran	VOAMS09	5.390	10.000	8.465	5
Toluene	VOAMS09	1.380	5.000	4.790	5
trans-1,2-Dichloroethene	VOAMS09	1.140	2.500	2.656	5
trans-1,3-Dichloropropene	VOAMS09	0.580	2.500	2.817	5
trans-1,4-Dichloro-2-butene	VOAMS09	1.900	5.000	4.482	5
Trichloroethene	VOAMS09	1.400	5.000	4.274	5
Trichlorofluoromethane	VOAMS09	0.660	2.500	2.364	10
Vinyl acetate	VOAMS09	0.930	5.000	4.327	10

**Matrix:** Solid  
**Method:** 8260B  
**Prep Method:** No Prep  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-88537  
**TALS Batch:** 130190  
**Units:** ug/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Vinyl chloride	VOAMS09	0.900	2.500	1.861	10
Xylenes, Total	VOAMS09	1.130	5.000	6.100	5



**Matrix:** Water  
**Method:** 8260B\_LL  
**Prep Method:** No Prep  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-88537  
**TALS Batch:** 130207  
**Units:** ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1,1,2-Tetrachloroethane	VOAMS07	0.180	0.500	0.545	1
1,1,1-Trichloroethane	VOAMS07	0.150	0.500	0.610	1
1,1,2,2-Tetrachloroethane	VOAMS07	0.220	0.500	0.432	1
1,1,2-Trichloro-1,2,2-trifluoroethane	VOAMS01	1.000	1.000	0.906	1
1,1,2-Trichloroethane	VOAMS01	0.280	1.000	0.836	1
1,1-Dichloroethane	VOAMS07	0.11	0.5	0.476	1
1,1-Dichloroethene	VOAMS07	0.190	0.500	0.495	1
1,1-Dichloropropene	VOAMS07	0.210	0.500	0.833	1
1,2,3-Trichlorobenzene	VOAMS01	0.570	1.000	1.041	1
1,2,3-Trichloropropane	VOAMS01	0.290	1.000	1.028	1
1,2,3-Trimethylbenzene	VOAMS07	0.130	0.500	0.714	1
1,2,4-Trichlorobenzene	VOAMS01	0.310	1.000	0.904	1
1,2,4-Trimethylbenzene	VOAMS07	0.140	0.500	0.730	1
1,2-Dibromo-3-Chloropropane	VOAMS01	0.810	1.000	0.586	1
1,2-Dichlorobenzene	VOAMS07	0.1	0.5	0.417	1
1,2-Dichloroethane	VOAMS07	0.140	0.500	0.596	1
1,2-Dichloroethene, Total	VOAMS07	0.300	1.000	0.960	1
1,2-Dichloropropane	VOAMS07	0.160	0.500	0.450	1
1,3,5-Trichlorobenzene	VOAMS01	1.000	1.000	0.908	1
1,3,5-Trimethylbenzene	VOAMS07	0.1	0.5	0.715	1
1,3-Dichlorobenzene	VOAMS07	0.130	0.500	0.435	1
1,3-Dichloropropane	VOAMS07	0.220	0.500	0.489	1
1,3-Dichloropropene, Total	VOAMS07	0.11	1	1.81	1
1,4-Dichlorobenzene	VOAMS07	0.11	0.5	0.5	1
1,4-Dioxane	VOAMS01	30.79	20	16.089	50
1-Chlorohexane	VOAMS01	0.260	1.000	1.097	1
2,2-Dichloropropane	VOAMS07	0.130	0.500	0.563	1
2-Butanone (MEK)	VOAMS01	0.760	2.000	1.428	2
2-Chloro-1,3-butadiene	VOAMS01	0.330	1.000	1.011	1
2-Chloroethyl vinyl ether	VOAMS01	0.500	2.000	2.554	2
2-Chlorotoluene	VOAMS07	0.130	0.500	0.665	1
2-Hexanone	VOAMS07	0.350	1.000	1.971	2
2-Methyl-2-propanol	VOAMS07	10.47	5	5.576	20
2-Methylnaphthalene	VOAMS01	1	1	0	1
2-Nitropropane	VOAMS01	1.210	2.000	4.577	1
3-Chloro-1-propene	VOAMS07	0.240	0.500	0.953	2
4-Chlorotoluene	VOAMS07	0.140	0.500	0.337	1
4-Isopropyltoluene	VOAMS07	0.1	0.5	0.403	1
4-Methyl-2-pentanone (MIBK)	VOAMS07	0.450	1.000	1.760	2
Acetone	VOAMS01	0.990	2.000	0.565	5
Acetonitrile	VOAMS07	0.27	5	3.915	2
Acrolein	VOAMS01	1.630	5.000	5.060	5
Acrylonitrile	VOAMS07	0.52	5	3.884	5
Benzene	VOAMS07	0.08	0.5	0.459	1
Benzyl chloride	VOAMS07	0.240	0.500	0.875	1
Bromobenzene	VOAMS07	0.190	0.500	0.489	1
Bromoform	VOAMS07	0.190	0.500	0.573	1
Bromomethane	VOAMS01	0.250	1.000	0.804	2
Butadiene	VOAMS07	0.210	0.500	0.384	1
Carbon disulfide	VOAMS07	0.240	0.500	0.434	2
Carbon tetrachloride	VOAMS07	0.150	0.500	0.610	1

**Matrix:** Water  
**Method:** 8260B\_LL  
**Prep Method:** No Prep  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-88537  
**TALS Batch:** 130207  
**Units:** ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Chlorobenzene	VOAMS07	0.12	0.5	0.508	1
Chlorobromomethane	VOAMS07	0.180	0.500	0.517	1
Chlorodibromomethane	VOAMS07	0.150	0.500	0.565	1
Chloroethane	VOAMS07	0.08	0.5	0.549	2
Chloroform	VOAMS07	0.130	0.500	0.573	1
Chloromethane	VOAMS07	0.180	0.500	0.424	2
cis-1,2-Dichloroethene	VOAMS07	0.06	0.5	0.491	1
cis-1,3-Dichloropropene	VOAMS07	0.180	0.500	0.807	1
Cyclohexane	VOAMS07	0.160	0.500	0.700	1
Cyclohexanone	VOAMS07	8.640	25.000	31.282	50
Dibromomethane	VOAMS01	0.520	1.000	0.343	1
Dichlorobromomethane	VOAMS07	0.160	0.500	0.490	1
Dichlorodifluoromethane	VOAMS07	0.12	0.5	0.476	1
Dichlorofluoromethane	VOAMS01	1.000	1.000	1.214	1
Ethanol	VOAMS07	1	25	0	1
Ethyl acetate	VOAMS07	0.410	1.000	2.127	2
Ethyl acrylate	VOAMS01	0.340	1.000	0.535	2
Ethyl ether	VOAMS07	0.150	0.500	0.836	1
Ethyl methacrylate	VOAMS01	0.260	1.000	0.915	2
Ethylbenzene	VOAMS07	0.11	0.5	0.769	1
Ethylene Dibromide	VOAMS07	0.180	0.500	0.466	1
Ethylene oxide	VOAMS01	2.13	20	4.963	10
Hexachlorobutadiene	VOAMS07	0.170	0.500	0.685	1
Hexane	VOAMS07	0.160	0.500	0.433	1
Iodomethane	VOAMS07	0.158	0.500	0.517	2
Isobutyl alcohol	VOAMS07	3.320	12.500	9.263	10
Isooctane	VOAMS01	0.330	1.000	0.661	1
Isopropyl alcohol	VOAMS01	3.720	10.000	0.586	10
Isopropyl ether	VOAMS07	0.09	0.5	0.443	1
Isopropylbenzene	VOAMS07	0.180	0.500	0.757	1
Methacrylonitrile	VOAMS07	0.41	5	3.96	2
Methyl acetate	VOAMS07	0.55	2.5	1.883	2
Methyl methacrylate	VOAMS07	0.330	1.000	1.663	1
Methyl tert-butyl ether	VOAMS07	0.12	0.5	0.947	1
Methylcyclohexane	VOAMS07	0.1	0.5	0.719	1
Methylene Chloride	VOAMS07	0.150	0.500	1.229	5
m-Xylene & p-Xylene	VOAMS07	0.170	0.500	0.838	1
Naphthalene	VOAMS01	0.320	1.000	1.120	2
n-Butyl acetate	VOAMS01	0.19	1	1.902	1
n-Butylbenzene	VOAMS07	0.160	0.500	0.585	1
n-Heptane	VOAMS01	1.000	1.000	0.511	1
N-Propylbenzene	VOAMS07	0.150	0.500	0.892	1
o-Xylene	VOAMS07	0.12	0.5	0.543	1
Pentachloroethane	VOAMS01	1.000	1.000	1.053	1
Propionitrile	VOAMS07	0.66	5	3.711	5
sec-Butylbenzene	VOAMS07	0.12	0.5	0.659741	1
Styrene	VOAMS07	0.07	0.5	1.110441	1
Tert-amyl methyl ether	VOAMS01	1.000	1.000	0.633	1
Tert-butyl ethyl ether	VOAMS01	1.000	1.000	0.677	1
tert-Butylbenzene	VOAMS07	0.08	0.5	0.880472	1
Tetrachloroethene	VOAMS07	0.130	0.500	0.817	1

**Matrix:** Water  
**Method:** 8260B\_LL  
**Prep Method:** No Prep  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-88537  
**TALS Batch:** 130207  
**Units:** ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Tetrahydrofuran	VOAMS01	1.080	2.000	1.071	5
Toluene	VOAMS07	0.150	0.500	0.506	1
trans-1,2-Dichloroethene	VOAMS07	0.09	0.5	0.472189	1
trans-1,3-Dichloropropene	VOAMS07	0.210	0.500	1.009	1
trans-1,4-Dichloro-2-butene	VOAMS01	0.640	1.000	0.676	2
Trichloroethene	VOAMS07	0.180	0.500	0.498	1
Trichlorofluoromethane	VOAMS07	0.08	0.5	0.539265	1
Trihalomethanes, Total	VOAMS01	1.000	4.000	3.600	5
Vinyl acetate	VOAMS07	0.21	1	1.798318	2
Vinyl chloride	VOAMS07	0.11	1	1.38	2
Xylenes, Total	VOAMS07	0.260	1.000	1.380	1



**Matrix:** Water  
**Method:** 8270C\_LL  
**Prep Method:** 3510C\_LL  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-87830  
**TALS Batch:** 130292  
**Units:** ug/L

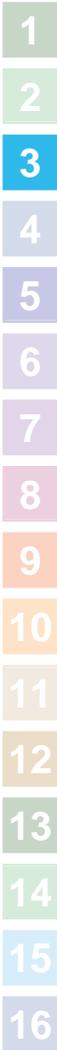
Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
1,1'-Biphenyl	SVMS06	0.100	0.125	0.089	1
1,2,4,5-Tetrachlorobenzene	SVMS06	0.100	0.125	0.122	1.5
1,2,4-Trichlorobenzene	SVMS06	0.120	0.125	0.072	2
1,2-Dichlorobenzene	SVMS06	0.170	0.250	0.174	1.75
1,2-Diphenylhydrazine	SVMS06	0.110	0.125	0.079	2
1,3-Dichlorobenzene	SVMS06	0.170	0.250	0.188	1.5
1,4-Dichlorobenzene	SVMS06	0.130	0.250	0.178	2
1,4-Dinitrobenzene	SVMS06	5.00	2.50	1.77	5
1-Methylnaphthalene	SVMS06	0.090	0.125	0.096	2
1-Naphthylamine	SVMS06	0.170	0.500	0.181	2
2,2'-oxybis[1-chloropropane]	SVMS06	0.400	0.250	0.159	1.5
2,3,5,6-Tetrachlorophenol	SVMS06	0.500	0.500	0.870	5
2,4,5-Trichlorophenol	SVMS06	0.250	0.250	0.102	2
2,4,6-Trichlorophenol	SVMS06	0.180	0.250	0.115	2
2,4-Dichlorophenol	SVMS06	0.150	0.250	0.071	2.5
2,4-Dinitrotoluene	SVMS06	0.130	0.250	0.385	1.5
2,6-Dinitrotoluene	SVMS06	0.080	0.250	0.353	1
2-Chloronaphthalene	SVMS06	0.080	0.125	0.130	1.5
2-Chlorophenol	SVMS06	0.130	0.250	0.188	2
2-Methylnaphthalene	SVMS06	0.070	0.125	0.092	1.5
2-Methylphenol	SVMS06	0.120	0.125	0.092	1.5
2-Naphthylamine	SVMS06	0.140	0.500	0.188	1
2-Nitroaniline	SVMS06	0.190	0.250	0.374	2.5
2-Nitrophenol	SVMS06	0.220	0.250	0.130	1
2-Picoline	SVMS06	0.390	0.500	0.170	1.5
2-Toluidine	SVMS06	0.130	0.500	0.271	1
3 & 4 Methylphenol	SVMS06	0.200	0.250	0.099	1
3,3'-Dichlorobenzidine	SVMS06	0.180	0.250	0.370	10
3-Methylcholanthrene	SVMS06	0.500	0.500	0.481	5
3-Nitroaniline	SVMS06	0.160	0.250	0.061	2.5
4-Aminobiphenyl	SVMS06	0.170	0.500	0.297	10
4-Bromophenyl phenyl ether	SVMS06	0.100	0.125	0.045	1.5
4-Chloro-3-methylphenol	SVMS06	0.170	0.250	0.073	1
4-Chloroaniline	SVMS06	0.210	0.250	0.117	1
4-Chlorophenyl phenyl ether	SVMS06	0.100	0.125	0.088	1.5
Acenaphthene	SVMS06	0.080	0.125	0.101	1
Acenaphthylene	SVMS06	0.060	0.125	0.315	1
Acetophenone	SVMS06	0.150	0.250	0.153	1.5
Aniline	SVMS06	0.080	0.250	0.140	1.5
Anthracene	SVMS06	0.050	0.125	0.075	1
Atrazine	SVMS06	0.160	0.250	0.060	1.5
Azobenzene	SVMS06	0.070	0.125	0.071	1.5
Benzaldehyde	SVMS06	0.500	0.500	0.096	1
Benzidine	SVMS06	0.610	1.303	1.220	10
Benzo[a]anthracene	SVMS06	0.080	0.125	0.114	2
Benzo[a]pyrene	SVMS06	0.080	0.125	0.046	1.5
Benzo[b]fluoranthene	SVMS06	0.070	0.125	0.083	2
Benzo[g,h,i]perylene	SVMS06	0.080	0.250	0.146	2.5
Benzo[k]fluoranthene	SVMS06	0.090	0.125	0.076	2
Benzyl alcohol	SVMS06	0.170	0.250	0.039	5.5
Bis(2-chloroethoxy)methane	SVMS06	0.130	0.250	0.206	1.5

**Matrix:** Water  
**Method:** 8270C\_LL  
**Prep Method:** 3510C\_LL  
**Date Analyzed:** 3/21/2014  
**Job #:** 600-87830  
**TALS Batch:** 130292  
**Units:** ug/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
Bis(2-chloroethyl)ether	SVMS06	0.150	0.250	0.215	1.5
Bis(2-ethylhexyl) phthalate	SVMS06	0.370	0.250	0.058	2.5
Butyl benzyl phthalate	SVMS06	0.120	0.125	0.011	2.5
Carbazole	SVMS06	0.170	0.250	0.116	6.25
Chrysene	SVMS06	0.080	0.125	0.095	1.5
Dibenz(a,h)anthracene	SVMS06	0.080	0.250	0.045	2.5
Dibenz[a,j]acridine	SVMS06	0.350	1.000	0.687	1
Dibenzofuran	SVMS06	0.080	0.125	0.081	1.5
Diethyl phthalate	SVMS06	1.50	0.250	0.215	2.5
Dimethyl phthalate	SVMS06	0.070	0.250	0.195	2.5
Di-n-butyl phthalate	SVMS06	0.110	0.125	0.080	2.5
Di-n-octyl phthalate	SVMS06	0.160	0.250	0.030	5
Diphenylamine	SVMS06	0.100	0.125	0.059	1.5
Ethyl methanesulfonate	SVMS06	0.170	0.500	0.370	1.5
Fluoranthene	SVMS06	0.070	0.125	0.109	2.5
Fluorene	SVMS06	0.070	0.125	0.090	1.5
Hexachlorobenzene	SVMS06	0.110	0.125	0.129	1.5
Hexachlorobutadiene	SVMS06	0.180	0.250	0.218	2
Hexachlorocyclopentadiene	SVMS06	0.130	0.250	0.184	1.5
Hexachloroethane	SVMS06	0.100	0.125	0.147	2
Hexachloropropene	SVMS06	0.160	0.500	0.395	10
Indene	SVMS06	0.150	0.500	0.204	1
Indeno[1,2,3-cd]pyrene	SVMS06	0.070	0.125	0.021	2
Isodrin	SVMS06	0.150	0.500	0.447	1.5
Isophorone	SVMS06	0.110	0.250	0.168	1.5
Methapyrilene	SVMS06	1.060	2.500	1.485	1.5
Methyl methanesulfonate	SVMS06	0.200	0.500	0.437	1.5
Methyl Phenols, Total	SVMS06	0.200	0.500	0.140	1
Naphthalene	SVMS06	0.080	0.125	0.082	5
Nitrobenzene	SVMS06	0.110	0.125	0.107	1.5
N-Nitrosodiethylamine	SVMS06	0.380	0.500	0.366	1.5
N-Nitrosodimethylamine	SVMS06	0.260	0.250	0.163	2
N-Nitrosodi-n-butylamine	SVMS06	0.230	0.500	0.308	1.5
N-Nitrosodi-n-propylamine	SVMS06	0.100	0.125	0.076	2.5
N-Nitrosodiphenylamine	SVMS06	0.100	0.125	0.056	1.5
N-Nitrosomethylethylamine	SVMS06	0.110	0.500	0.115	1
N-Nitrosomorpholine	SVMS06	0.190	0.500	0.355	10
N-Nitrosopiperidine	SVMS06	0.190	0.500	0.370	1.5
N-Nitrosopyrrolidine	SVMS06	0.210	0.500	0.434	1
o,o',o"-Triethylphosphorothioate	SVMS06	0.500	0.500	0.398	5
Pentachlorobenzene	SVMS06	0.130	0.500	0.415	1.5
Pentachloroethane	SVMS06	0.150	0.500	0.296	1
Pentachloronitrobenzene	SVMS06	0.12	0.500	0.573	1.5
Pentachlorophenol	SVMS06	0.610	0.250	0.582	2.5
Phenanthrene	SVMS06	0.060	0.125	0.087	1.5
Phenol	SVMS06	0.040	0.125	0.110	1.5
Pyrene	SVMS06	0.110	0.125	0.077	2
Quinoline	SVMS06	0.130	0.500	0.396	1

**Matrix:** Solid  
**Method:** TX\_1005  
**Prep Method:** X\_1005\_S\_Prep  
**Date Analyzed:** 12/31/2013  
**Job #:** 600-87854  
**TALS Batch:** 124046  
**Units:** mg/Kg

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
C6-C12	FID07	3.8	20	20.377	10
C6-C35	FID07	7.48	40	46.035	10
Over C12-C28	FID07	4.06	20	25.658	10



**Matrix:** Water  
**Method:** TX\_1005  
**Prep Method:** Pass  
**Date Analyzed:** 1/3/2014  
**Job #:** 600-87854  
**TALS Batch:** 124108  
**Units:** mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
C6-C12	FID07	0.83	0.5	0.551	2.0
C6-C35	FID07	1.56	1.0	1.12	2.0
Over C12-C28	FID07	0.96	0.5	0.571	2.0



# Case Narrative

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

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**Job ID: 600-94898-1**

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**Laboratory: TestAmerica Houston**

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**Narrative**

**Job Narrative**  
**600-94898-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 7/3/2014 10:38 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.2° C and 4.0° C.

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# Method Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
1664A	HEM and SGT-HEM	1664A	TAL HOU
9071B	HEM and SGT-HEM	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

**Protocol References:**

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

**Laboratory References:**

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



# Sample Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-94898-1	B1 @ 0-2.5	Solid	06/30/14 12:10	07/03/14 10:38
600-94898-2	B1 @ 7.5-10	Solid	06/30/14 12:15	07/03/14 10:38
600-94898-3	B2 0-2.5 (MW1)	Solid	06/30/14 12:30	07/03/14 10:38
600-94898-4	B2 @ 7.5-10 (MW1)	Solid	06/30/14 12:35	07/03/14 10:38
600-94898-5	B3 @ 0-2.5	Solid	06/30/14 01:20	07/03/14 10:38
600-94898-6	B3 @ 7.5-10	Solid	06/30/14 01:25	07/03/14 10:38
600-94898-7	B4 @ 2.5-5	Solid	06/30/14 02:05	07/03/14 10:38
600-94898-8	B4 @ 7.5-10	Solid	06/30/14 02:15	07/03/14 10:38
600-94898-9	B5 @ 0-2.5	Solid	06/30/14 03:10	07/03/14 10:38
600-94898-10	B5 @ 7.5-10	Solid	06/30/14 03:15	07/03/14 10:38
600-94898-11	B6 @ 0-2.5	Solid	06/30/14 04:10	07/03/14 10:38
600-94898-12	B6 @ 7.5-10	Solid	06/30/14 04:15	07/03/14 10:38
600-94898-13	MW1 (B2)	Water	07/01/14 10:30	07/03/14 10:38
600-94898-14	MW1 (B2)	Water	07/01/14 10:30	07/03/14 10:38
600-94898-16	MW1 (B2)	Water	07/01/14 10:30	07/03/14 10:38



# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B1 @ 0-2.5**

**Lab Sample ID: 600-94898-1**

Date Collected: 06/30/14 12:10

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/07/14 19:06	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/07/14 19:06	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/07/14 19:06	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/07/14 19:06	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/07/14 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		61 - 130		07/07/14 19:06	1
Dibromofluoromethane	95		68 - 140		07/07/14 19:06	1
Toluene-d8 (Surr)	82		50 - 130		07/07/14 19:06	1
4-Bromofluorobenzene	99		57 - 140		07/07/14 19:06	1

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	1.15	U	19.2	1.15	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Anthracene	1.48	U	19.2	1.48	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Benzo[a]anthracene	1.59	U	19.2	1.59	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Benzo[b]fluoranthene	1.98	U	38.4	1.98	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Benzo[k]fluoranthene	1.72	U	38.4	1.72	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Benzo[g,h,i]perylene	5.85	U	19.2	5.85	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Benzo[a]pyrene	1.86	U	19.2	1.86	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Chrysene	1.18	U	19.2	1.18	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Dibenz(a,h)anthracene	4.19	U	19.2	4.19	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Fluoranthene	3.59	U	19.2	3.59	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Fluorene	2.72	U	19.2	2.72	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Indeno[1,2,3-cd]pyrene	4.04	U	38.4	4.04	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
2-Methylnaphthalene	3.16	U	19.2	3.16	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Phenanthrene	5.71	U	19.2	5.71	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Pyrene	2.11	U	19.2	2.11	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
1-Methylnaphthalene	1.81	U	19.2	1.81	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Naphthalene	1.56	U	19.2	1.56	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1
Acenaphthene	1.66	U	19.2	1.66	ug/Kg	☼	07/10/14 13:16	07/11/14 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	75		10 - 148	07/10/14 13:16	07/11/14 14:40	1
2-Fluorobiphenyl	76		38 - 130	07/10/14 13:16	07/11/14 14:40	1
2-Fluorophenol	84		25 - 132	07/10/14 13:16	07/11/14 14:40	1
Nitrobenzene-d5	78		10 - 155	07/10/14 13:16	07/11/14 14:40	1
Terphenyl-d14	84		53 - 134	07/10/14 13:16	07/11/14 14:40	1
Phenol-d5 (Surr)	79		27 - 130	07/10/14 13:16	07/11/14 14:40	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 12:34	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.77	U	9.92	3.77	mg/Kg		07/07/14 10:09	07/07/14 18:41	1
>C12-C28	4.88	J	9.92	4.03	mg/Kg		07/07/14 10:09	07/07/14 18:41	1
>C28-C35	4.03	U	9.92	4.03	mg/Kg		07/07/14 10:09	07/07/14 18:41	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B1 @ 0-2.5**

**Lab Sample ID: 600-94898-1**

Date Collected: 06/30/14 12:10

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C35	4.88	J	9.92	3.77	mg/Kg		07/07/14 10:09	07/07/14 18:41	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	86		70 - 130				07/07/14 10:09	07/07/14 18:41	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	69.2		49.5	1.17	mg/Kg		07/07/14 11:00	07/07/14 11:01	1
Percent Moisture	13		1.0	1.0	%			07/10/14 13:26	1
Percent Solids	87		1.0	1.0	%			07/10/14 13:26	1

**Client Sample ID: B1 @7.5-10**

**Lab Sample ID: 600-94898-2**

Date Collected: 06/30/14 12:15

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/07/14 19:31	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/07/14 19:31	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/07/14 19:31	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/07/14 19:31	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/07/14 19:31	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>1,2</i> -Dichloroethane-d4 (Surr)	87		61 - 130					07/07/14 19:31	1
<i>Dibromofluoromethane</i>	94		68 - 140					07/07/14 19:31	1
<i>Toluene-d8</i> (Surr)	83		50 - 130					07/07/14 19:31	1
<i>4</i> -Bromofluorobenzene	96		57 - 140					07/07/14 19:31	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 12:46	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.78	U	9.94	3.78	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
>C12-C28	4.04	U	9.94	4.04	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
>C28-C35	4.04	U	9.94	4.04	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
C6-C35	3.78	U	9.94	3.78	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	86		70 - 130				07/07/14 10:09	07/07/14 19:14	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	39.9	J	49.9	1.18	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B2 0-2.5 (MW1)**

**Lab Sample ID: 600-94898-3**

Date Collected: 06/30/14 12:30

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/07/14 19:56	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/07/14 19:56	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/07/14 19:56	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/07/14 19:56	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/07/14 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		61 - 130		07/07/14 19:56	1
Dibromofluoromethane	92		68 - 140		07/07/14 19:56	1
Toluene-d8 (Surr)	91		50 - 130		07/07/14 19:56	1
4-Bromofluorobenzene	108		57 - 140		07/07/14 19:56	1

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	5.84	U	97.3	5.84	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Anthracene	7.47	U	97.3	7.47	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Benzo[a]anthracene	8.05	U	97.3	8.05	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Benzo[b]fluoranthene	10.0	U	195	10.0	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Benzo[k]fluoranthene	8.70	U	195	8.70	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Benzo[g,h,i]perylene	29.6	U	97.3	29.6	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Benzo[a]pyrene	9.40	U	97.3	9.40	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Chrysene	5.95	U	97.3	5.95	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Dibenz(a,h)anthracene	21.2	U	97.3	21.2	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Fluoranthene	18.2	U	97.3	18.2	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Fluorene	13.8	U	97.3	13.8	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Indeno[1,2,3-cd]pyrene	20.4	U	195	20.4	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
2-Methylnaphthalene	16.0	U	97.3	16.0	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Phenanthrene	28.9	U	97.3	28.9	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Pyrene	10.7	U	97.3	10.7	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
1-Methylnaphthalene	9.16	U	97.3	9.16	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Naphthalene	7.88	U	97.3	7.88	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5
Acenaphthene	8.40	U	97.3	8.40	ug/Kg	*	07/10/14 13:16	07/11/14 15:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	101		10 - 148	07/10/14 13:16	07/11/14 15:09	5
2-Fluorobiphenyl	71		38 - 130	07/10/14 13:16	07/11/14 15:09	5
2-Fluorophenol	68		25 - 132	07/10/14 13:16	07/11/14 15:09	5
Nitrobenzene-d5	74		10 - 155	07/10/14 13:16	07/11/14 15:09	5
Terphenyl-d14	92		53 - 134	07/10/14 13:16	07/11/14 15:09	5
Phenol-d5 (Surr)	72		27 - 130	07/10/14 13:16	07/11/14 15:09	5

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	22.9		5.00	1.04	mg/L			07/07/14 13:31	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	22.5		10.0	3.80	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
>C12-C28	487		10.0	4.06	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
C6-C35	510		10.0	3.80	mg/Kg		07/07/14 10:09	07/07/14 19:47	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B2 0-2.5 (MW1)

Date Collected: 06/30/14 12:30

Date Received: 07/03/14 10:38

## Lab Sample ID: 600-94898-3

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		70 - 130	07/07/14 10:09	07/07/14 19:47	1

General Chemistry										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
HEM (Oil and Grease)	835		49.7	1.18	mg/Kg		07/07/14 11:00	07/07/14 11:01	1	
Percent Moisture	14		1.0	1.0	%			07/10/14 13:26	1	
Percent Solids	86		1.0	1.0	%			07/10/14 13:26	1	

## Client Sample ID: B2 @ 7.5-10 (MW1)

Date Collected: 06/30/14 12:35

Date Received: 07/03/14 10:38

## Lab Sample ID: 600-94898-4

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 15:52	1	
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 15:52	1	
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 15:52	1	
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 15:52	1	
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 15:52	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,2</i> -Dichloroethane- <i>d</i> 4 (Surr)	72		61 - 130		07/08/14 15:52	1
<i>Dibromofluoromethane</i>	77		68 - 140		07/08/14 15:52	1
<i>Toluene-d</i> 8 (Surr)	65		50 - 130		07/08/14 15:52	1
<i>4</i> -Bromofluorobenzene	93		57 - 140		07/08/14 15:52	1

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 13:46	1	

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C12	3.77	U	9.93	3.77	mg/Kg		07/07/14 10:09	07/07/14 20:20	1	
>C12-C28	4.03	U	9.93	4.03	mg/Kg		07/07/14 10:09	07/07/14 20:20	1	
>C28-C35	4.03	U	9.93	4.03	mg/Kg		07/07/14 10:09	07/07/14 20:20	1	
C6-C35	3.77	U	9.93	3.77	mg/Kg		07/07/14 10:09	07/07/14 20:20	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	87		70 - 130	07/07/14 10:09	07/07/14 20:20	1

General Chemistry										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
HEM (Oil and Grease)	148	b	49.3	1.17	mg/Kg		07/07/14 11:00	07/07/14 11:01	1	

## Client Sample ID: B3 @ 0-2.5

Date Collected: 06/30/14 01:20

Date Received: 07/03/14 10:38

## Lab Sample ID: 600-94898-5

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)										
Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 16:16	1	
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 16:16	1	

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B3 @ 0-2.5**

**Lab Sample ID: 600-94898-5**

Date Collected: 06/30/14 01:20

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 16:16	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 16:16	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 16:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	68		61 - 130					07/08/14 16:16	1
Dibromofluoromethane	76		68 - 140					07/08/14 16:16	1
Toluene-d8 (Surr)	66		50 - 130					07/08/14 16:16	1
4-Bromofluorobenzene	91		57 - 140					07/08/14 16:16	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 13:58	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.78	U	9.94	3.78	mg/Kg		07/07/14 10:09	07/07/14 22:33	1
>C12-C28	4.04	U	9.94	4.04	mg/Kg		07/07/14 10:09	07/07/14 22:33	1
>C28-C35	4.04	U	9.94	4.04	mg/Kg		07/07/14 10:09	07/07/14 22:33	1
C6-C35	3.78	U	9.94	3.78	mg/Kg		07/07/14 10:09	07/07/14 22:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	84		70 - 130				07/07/14 10:09	07/07/14 22:33	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	59.1		49.3	1.17	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

**Client Sample ID: B3 @ 7.5-10**

**Lab Sample ID: 600-94898-6**

Date Collected: 06/30/14 01:25

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 16:41	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 16:41	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 16:41	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 16:41	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 16:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	72		61 - 130					07/08/14 16:41	1
Dibromofluoromethane	78		68 - 140					07/08/14 16:41	1
Toluene-d8 (Surr)	63		50 - 130					07/08/14 16:41	1
4-Bromofluorobenzene	90		57 - 140					07/08/14 16:41	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 14:10	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B3 @ 7.5-10

Lab Sample ID: 600-94898-6

Date Collected: 06/30/14 01:25

Matrix: Solid

Date Received: 07/03/14 10:38

### Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.79	U	9.97	3.79	mg/Kg		07/07/14 10:09	07/07/14 23:06	1
>C12-C28	4.05	U	9.97	4.05	mg/Kg		07/07/14 10:09	07/07/14 23:06	1
>C28-C35	4.05	U	9.97	4.05	mg/Kg		07/07/14 10:09	07/07/14 23:06	1
C6-C35	3.79	U	9.97	3.79	mg/Kg		07/07/14 10:09	07/07/14 23:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	78		70 - 130				07/07/14 10:09	07/07/14 23:06	1

### General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	39.8	J	49.8	1.18	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

## Client Sample ID: B4 @ 2.5-5

Lab Sample ID: 600-94898-7

Date Collected: 06/30/14 02:05

Matrix: Solid

Date Received: 07/03/14 10:38

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 17:05	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 17:05	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 17:05	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 17:05	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 17:05	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>1,2</i> -Dichloroethane-d4 (Surr)	73		61 - 130					07/08/14 17:05	1
<i>Dibromofluoromethane</i>	79		68 - 140					07/08/14 17:05	1
<i>Toluene-d8</i> (Surr)	62		50 - 130					07/08/14 17:05	1
<i>4</i> -Bromofluorobenzene	89		57 - 140					07/08/14 17:05	1

### Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 14:22	1

### Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.78	U	9.96	3.78	mg/Kg		07/07/14 10:09	07/07/14 23:39	1
>C12-C28	4.04	U	9.96	4.04	mg/Kg		07/07/14 10:09	07/07/14 23:39	1
>C28-C35	4.04	U	9.96	4.04	mg/Kg		07/07/14 10:09	07/07/14 23:39	1
C6-C35	3.78	U	9.96	3.78	mg/Kg		07/07/14 10:09	07/07/14 23:39	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	85		70 - 130				07/07/14 10:09	07/07/14 23:39	1

### General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	49.0		49.0	1.16	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B4 @ 7.5-10**

**Lab Sample ID: 600-94898-8**

Date Collected: 06/30/14 02:15

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 17:29	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 17:29	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 17:29	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 17:29	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130		07/08/14 17:29	1
Dibromofluoromethane	77		68 - 140		07/08/14 17:29	1
Toluene-d8 (Surr)	63		50 - 130		07/08/14 17:29	1
4-Bromofluorobenzene	90		57 - 140		07/08/14 17:29	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 14:34	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		07/07/14 10:09	07/08/14 00:12	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/08/14 00:12	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/08/14 00:12	1
C6-C35	3.80	U	10.0	3.80	mg/Kg		07/07/14 10:09	07/08/14 00:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		70 - 130	07/07/14 10:09	07/08/14 00:12	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	99.8		49.9	1.18	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

**Client Sample ID: B5 @ 0-2.5**

**Lab Sample ID: 600-94898-9**

Date Collected: 06/30/14 03:10

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 17:53	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 17:53	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 17:53	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 17:53	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	70		61 - 130		07/08/14 17:53	1
Dibromofluoromethane	76		68 - 140		07/08/14 17:53	1
Toluene-d8 (Surr)	67		50 - 130		07/08/14 17:53	1
4-Bromofluorobenzene	92		57 - 140		07/08/14 17:53	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 14:46	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B5 @ 0-2.5

Lab Sample ID: 600-94898-9

Date Collected: 06/30/14 03:10

Matrix: Solid

Date Received: 07/03/14 10:38

### Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.77	U	9.92	3.77	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
>C12-C28	4.03	U	9.92	4.03	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
>C28-C35	4.03	U	9.92	4.03	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
C6-C35	3.77	U	9.92	3.77	mg/Kg		07/07/14 10:09	07/07/14 19:14	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	120		70 - 130				07/07/14 10:09	07/07/14 19:14	1

### General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	118		49.4	1.17	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

## Client Sample ID: B5 @ 7.5-10

Lab Sample ID: 600-94898-10

Date Collected: 06/30/14 03:15

Matrix: Solid

Date Received: 07/03/14 10:38

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 18:18	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 18:18	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 18:18	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 18:18	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 18:18	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>1,2</i> -Dichloroethane-d4 (Surr)	72		61 - 130					07/08/14 18:18	1
<i>Dibromofluoromethane</i>	79		68 - 140					07/08/14 18:18	1
<i>Toluene-d8</i> (Surr)	66		50 - 130					07/08/14 18:18	1
<i>4</i> -Bromofluorobenzene	94		57 - 140					07/08/14 18:18	1

### Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 14:58	1

### Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
C6-C35	3.80	U	10.0	3.80	mg/Kg		07/07/14 10:09	07/07/14 19:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	119		70 - 130				07/07/14 10:09	07/07/14 19:47	1

### General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	98.0		49.0	1.16	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B6 @ 0-2.5**

**Lab Sample ID: 600-94898-11**

Date Collected: 06/30/14 04:10

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 18:42	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 18:42	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 18:42	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 18:42	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71		61 - 130		07/08/14 18:42	1
Dibromofluoromethane	80		68 - 140		07/08/14 18:42	1
Toluene-d8 (Surr)	68		50 - 130		07/08/14 18:42	1
4-Bromofluorobenzene	95		57 - 140		07/08/14 18:42	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 15:13	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.77	U	9.93	3.77	mg/Kg		07/07/14 10:09	07/07/14 20:20	1
>C12-C28	4.03	U	9.93	4.03	mg/Kg		07/07/14 10:09	07/07/14 20:20	1
>C28-C35	4.03	U	9.93	4.03	mg/Kg		07/07/14 10:09	07/07/14 20:20	1
C6-C35	3.77	U	9.93	3.77	mg/Kg		07/07/14 10:09	07/07/14 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	116		70 - 130	07/07/14 10:09	07/07/14 20:20	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	296		49.3	1.17	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

**Client Sample ID: B6 @ 7.5-10**

**Lab Sample ID: 600-94898-12**

Date Collected: 06/30/14 04:15

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 19:07	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 19:07	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 19:07	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 19:07	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		61 - 130		07/08/14 19:07	1
Dibromofluoromethane	82		68 - 140		07/08/14 19:07	1
Toluene-d8 (Surr)	69		50 - 130		07/08/14 19:07	1
4-Bromofluorobenzene	95		57 - 140		07/08/14 19:07	1

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			07/07/14 15:28	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: B6 @ 7.5-10**

**Lab Sample ID: 600-94898-12**

Date Collected: 06/30/14 04:15

Matrix: Solid

Date Received: 07/03/14 10:38

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.77	U	9.93	3.77	mg/Kg		07/07/14 10:09	07/07/14 21:26	1
>C12-C28	4.03	U	9.93	4.03	mg/Kg		07/07/14 10:09	07/07/14 21:26	1
>C28-C35	4.03	U	9.93	4.03	mg/Kg		07/07/14 10:09	07/07/14 21:26	1
C6-C35	3.77	U	9.93	3.77	mg/Kg		07/07/14 10:09	07/07/14 21:26	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	118		70 - 130				07/07/14 10:09	07/07/14 21:26	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	58.9		49.1	1.17	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

**Client Sample ID: MW1 (B2)**

**Lab Sample ID: 600-94898-13**

Date Collected: 07/01/14 10:30

Matrix: Water

Date Received: 07/03/14 10:38

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.115	J	1.00	0.0800	ug/L			07/07/14 15:07	1
Ethylbenzene	0.110	U	1.00	0.110	ug/L			07/07/14 15:07	1
Toluene	0.247	J	1.00	0.150	ug/L			07/07/14 15:07	1
Xylenes, Total	0.478	J	3.00	0.260	ug/L			07/07/14 15:07	1
Methyl tert-butyl ether	0.120	U	1.00	0.120	ug/L			07/07/14 15:07	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Toluene-d8 (Surr)</i>	81		70 - 130					07/07/14 15:07	1
<i>Dibromofluoromethane</i>	91		62 - 130					07/07/14 15:07	1
<i>4-Bromofluorobenzene</i>	73		67 - 139					07/07/14 15:07	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		50 - 134					07/07/14 15:07	1

**Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.806	U	4.85	0.806	mg/L		07/08/14 12:02	07/08/14 17:51	1
>C12-C28	0.932	U	4.85	0.932	mg/L		07/08/14 12:02	07/08/14 17:51	1
>C28-C35	0.932	U	4.85	0.932	mg/L		07/08/14 12:02	07/08/14 17:51	1
C6-C35	0.806	U	4.85	0.806	mg/L		07/08/14 12:02	07/08/14 17:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>o</i> -Terphenyl	124		70 - 130				07/08/14 12:02	07/08/14 17:51	1

**Client Sample ID: MW1 (B2)**

**Lab Sample ID: 600-94898-14**

Date Collected: 07/01/14 10:30

Matrix: Water

Date Received: 07/03/14 10:38

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Allyl alcohol	5.00	U	5.00	5.00	mg/L			07/10/14 10:46	1
Ethanol	1.78	J	5.00	0.560	mg/L			07/07/14 16:20	1
Isobutyl alcohol	1.26	U	5.00	1.26	mg/L			07/07/14 16:20	1
Isopropyl alcohol	0.850	U	5.00	0.850	mg/L			07/07/14 16:20	1
Methanol	3.46	J	5.00	0.910	mg/L			07/07/14 16:20	1

TestAmerica Houston

# Client Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: MW1 (B2)**

**Lab Sample ID: 600-94898-14**

Date Collected: 07/01/14 10:30

Matrix: Water

Date Received: 07/03/14 10:38

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) (Continued)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butanol	1.48	U	5.00	1.48	mg/L			07/07/14 16:20	1
Propanol	0.760	U	5.00	0.760	mg/L			07/07/14 16:20	1
sec-Butyl Alcohol	5.00	U	5.00	5.00	mg/L			07/10/14 13:55	1
Propargyl alcohol	5.00	U	5.00	5.00	mg/L			07/10/14 12:25	1

**Client Sample ID: MW1 (B2)**

**Lab Sample ID: 600-94898-16**

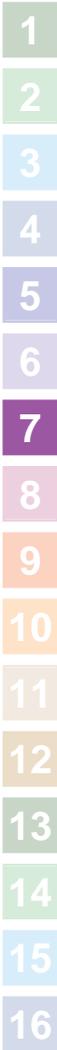
Date Collected: 07/01/14 10:30

Matrix: Water

Date Received: 07/03/14 10:38

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	1.80	J	3.00	1.00	mg/L		07/08/14 08:11	07/08/14 08:14	1



# Definitions/Glossary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

### GC VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

## General Chemistry

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
b	The compound was found in the blank and sample
U	Analyte was not detected at or above the SDL.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Surrogate Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-94898-1	B1 @ 0-2.5	85	95	82	99
600-94898-2	B1 @ 7.5-10	87	94	83	96
600-94898-3	B2 0-2.5 (MW1)	82	92	91	108
600-94898-4	B2 @ 7.5-10 (MW1)	72	77	65	93
600-94898-5	B3 @ 0-2.5	68	76	66	91
600-94898-6	B3 @ 7.5-10	72	78	63	90
600-94898-7	B4 @ 2.5-5	73	79	62	89
600-94898-8	B4 @ 7.5-10	73	77	63	90
600-94898-9	B5 @ 0-2.5	70	76	67	92
600-94898-10	B5 @ 7.5-10	72	79	66	94
600-94898-11	B6 @ 0-2.5	71	80	68	95
600-94898-12	B6 @ 7.5-10	76	82	69	95
LCS 600-138457/3	Lab Control Sample	71	83	81	108
LCS 600-138567/3	Lab Control Sample	73	81	77	95
LCSD 600-138457/4	Lab Control Sample Dup	63	74	71	95
LCSD 600-138567/4	Lab Control Sample Dup	74	83	75	100
MB 600-138457/6	Method Blank	61	78	77	102
MB 600-138567/6	Method Blank	73	81	77	102

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
DBFM = Dibromofluoromethane  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (70-130)	DBFM (62-130)	BFB (67-139)	12DCE (50-134)
600-94898-13	MW1 (B2)	81	91	73	101
LCS 600-138458/3	Lab Control Sample	83	77	98	85
LCSD 600-138458/4	Lab Control Sample Dup	90	80	103	86
MB 600-138458/7	Method Blank	99	83	106	94

### Surrogate Legend

TOL = Toluene-d8 (Surr)  
DBFM = Dibromofluoromethane  
BFB = 4-Bromofluorobenzene  
12DCE = 1,2-Dichloroethane-d4 (Surr)

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-148)	FBP (38-130)	2FP (25-132)	NBZ (10-155)	TPH (53-134)	PHL (27-130)
600-94501-A-24-F MS	Matrix Spike	0 X	72	64	64	70	68
600-94501-A-24-G MSD	Matrix Spike Duplicate	0 X	73	70	68	82	68

TestAmerica Houston

# Surrogate Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-148)	FBP (38-130)	2FP (25-132)	NBZ (10-155)	TPH (53-134)	PHL (27-130)
600-94898-1	B1 @ 0-2.5	75	76	84	78	84	79
600-94898-3	B2 0-2.5 (MW1)	101	71	68	74	92	72
LCS 600-138805/2-A	Lab Control Sample	68	76	83	78	80	81
MB 600-138805/1-A	Method Blank	25	71	78	74	83	66

### Surrogate Legend

TBP = 2,4,6-Tribromophenol  
FBP = 2-Fluorobiphenyl  
2FP = 2-Fluorophenol  
NBZ = Nitrobenzene-d5  
TPH = Terphenyl-d14  
PHL = Phenol-d5 (Surr)

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	OTPH
		(70-130)
600-94898-1	B1 @ 0-2.5	86
600-94898-2	B1 @ 7.5-10	86
600-94898-3	B2 0-2.5 (MW1)	90
600-94898-4	B2 @ 7.5-10 (MW1)	87
600-94898-4 MS	B2 @ 7.5-10 (MW1)	83
600-94898-4 MSD	B2 @ 7.5-10 (MW1)	84
600-94898-5	B3 @ 0-2.5	84
600-94898-6	B3 @ 7.5-10	78
600-94898-7	B4 @ 2.5-5	85
600-94898-8	B4 @ 7.5-10	84
600-94898-9	B5 @ 0-2.5	120
600-94898-10	B5 @ 7.5-10	119
600-94898-11	B6 @ 0-2.5	116
600-94898-12	B6 @ 7.5-10	118
LCS 600-138478/2-A	Lab Control Sample	80
MB 600-138478/1-A	Method Blank	88

### Surrogate Legend

OTPH = o-Terphenyl

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	OTPH
		(70-130)
600-94898-13	MW1 (B2)	124
600-94993-A-30-B MS	Matrix Spike	116
600-94993-A-30-C MSD	Matrix Spike Duplicate	113
LCS 600-138598/2-A	Lab Control Sample	115
MB 600-138598/1-A	Method Blank	119

TestAmerica Houston

# Surrogate Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Surrogate Legend

OTPH = o-Terphenyl

1

2

3

4

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16

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-138457/6

Matrix: Solid

Analysis Batch: 138457

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/07/14 14:03	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/07/14 14:03	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/07/14 14:03	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/07/14 14:03	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/07/14 14:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	61		61 - 130		07/07/14 14:03	1
Dibromofluoromethane	78		68 - 140		07/07/14 14:03	1
Toluene-d8 (Surr)	77		50 - 130		07/07/14 14:03	1
4-Bromofluorobenzene	102		57 - 140		07/07/14 14:03	1

Lab Sample ID: LCS 600-138457/3

Matrix: Solid

Analysis Batch: 138457

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	43.90		ug/Kg		88	70 - 131
Ethylbenzene	50.0	52.33		ug/Kg		105	66 - 130
Toluene	50.0	48.77		ug/Kg		98	67 - 130
Xylenes, Total	100	102.9		ug/Kg		103	63 - 130
Methyl tert-butyl ether	50.0	41.33		ug/Kg		83	63 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	71		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	81		50 - 130
4-Bromofluorobenzene	108		57 - 140

Lab Sample ID: LCSD 600-138457/4

Matrix: Solid

Analysis Batch: 138457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	43.75		ug/Kg		87	70 - 131	0	30
Ethylbenzene	50.0	50.59		ug/Kg		101	66 - 130	3	30
Toluene	50.0	48.15		ug/Kg		96	67 - 130	1	30
Xylenes, Total	100	99.84		ug/Kg		100	63 - 130	3	30
Methyl tert-butyl ether	50.0	43.16		ug/Kg		86	63 - 132	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	63		61 - 130
Dibromofluoromethane	74		68 - 140
Toluene-d8 (Surr)	71		50 - 130
4-Bromofluorobenzene	95		57 - 140

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-138458/7**

**Matrix: Water**

**Analysis Batch: 138458**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0800	U	1.00	0.0800	ug/L			07/07/14 13:08	1
Ethylbenzene	0.110	U	1.00	0.110	ug/L			07/07/14 13:08	1
Toluene	0.150	U	1.00	0.150	ug/L			07/07/14 13:08	1
Xylenes, Total	0.260	U	3.00	0.260	ug/L			07/07/14 13:08	1
Methyl tert-butyl ether	0.120	U	1.00	0.120	ug/L			07/07/14 13:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		07/07/14 13:08	1
Dibromofluoromethane	83		62 - 130		07/07/14 13:08	1
4-Bromofluorobenzene	106		67 - 139		07/07/14 13:08	1
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		07/07/14 13:08	1

**Lab Sample ID: LCS 600-138458/3**

**Matrix: Water**

**Analysis Batch: 138458**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	9.134		ug/L		91	70 - 130
Ethylbenzene	10.0	10.08		ug/L		101	70 - 130
Toluene	10.0	9.885		ug/L		99	70 - 130
Xylenes, Total	20.0	19.26		ug/L		96	70 - 130
Methyl tert-butyl ether	10.0	9.582		ug/L		96	56 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	83		70 - 130
Dibromofluoromethane	77		62 - 130
4-Bromofluorobenzene	98		67 - 139
1,2-Dichloroethane-d4 (Surr)	85		50 - 134

**Lab Sample ID: LCSD 600-138458/4**

**Matrix: Water**

**Analysis Batch: 138458**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	10.0	8.911		ug/L		89	70 - 130	2	20
Ethylbenzene	10.0	10.12		ug/L		101	70 - 130	0	20
Toluene	10.0	9.905		ug/L		99	70 - 130	0	20
Xylenes, Total	20.0	18.97		ug/L		95	70 - 130	1	20
Methyl tert-butyl ether	10.0	9.630		ug/L		96	56 - 132	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	90		70 - 130
Dibromofluoromethane	80		62 - 130
4-Bromofluorobenzene	103		67 - 139
1,2-Dichloroethane-d4 (Surr)	86		50 - 134

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# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 600-138567/6**

**Matrix: Solid**

**Analysis Batch: 138567**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			07/08/14 13:08	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			07/08/14 13:08	1
Toluene	1.38	U	5.00	1.38	ug/Kg			07/08/14 13:08	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			07/08/14 13:08	1
Methyl tert-butyl ether	1.83	U	5.00	1.83	ug/Kg			07/08/14 13:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	73		61 - 130		07/08/14 13:08	1
Dibromofluoromethane	81		68 - 140		07/08/14 13:08	1
Toluene-d8 (Surr)	77		50 - 130		07/08/14 13:08	1
4-Bromofluorobenzene	102		57 - 140		07/08/14 13:08	1

**Lab Sample ID: LCS 600-138567/3**

**Matrix: Solid**

**Analysis Batch: 138567**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	42.27		ug/Kg		85	70 - 131
Ethylbenzene	50.0	50.39		ug/Kg		101	66 - 130
Toluene	50.0	47.64		ug/Kg		95	67 - 130
Xylenes, Total	100	101.4		ug/Kg		101	63 - 130
Methyl tert-butyl ether	50.0	45.72		ug/Kg		91	63 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	73		61 - 130
Dibromofluoromethane	81		68 - 140
Toluene-d8 (Surr)	77		50 - 130
4-Bromofluorobenzene	95		57 - 140

**Lab Sample ID: LCSD 600-138567/4**

**Matrix: Solid**

**Analysis Batch: 138567**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	39.88		ug/Kg		80	70 - 131	6	30
Ethylbenzene	50.0	45.31		ug/Kg		91	66 - 130	11	30
Toluene	50.0	42.73		ug/Kg		85	67 - 130	11	30
Xylenes, Total	100	92.77		ug/Kg		93	63 - 130	9	30
Methyl tert-butyl ether	50.0	43.26		ug/Kg		87	63 - 132	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		61 - 130
Dibromofluoromethane	83		68 - 140
Toluene-d8 (Surr)	75		50 - 130
4-Bromofluorobenzene	100		57 - 140

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Lab Sample ID: MB 600-138805/1-A**

**Matrix: Solid**

**Analysis Batch: 138803**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 138805**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.998	U	16.6	0.998	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Anthracene	1.28	U	16.6	1.28	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Benzo[a]anthracene	1.38	U	16.6	1.38	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Benzo[b]fluoranthene	1.72	U	33.3	1.72	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Benzo[k]fluoranthene	1.49	U	33.3	1.49	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Benzo[g,h,i]perylene	5.06	U	16.6	5.06	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Benzo[a]pyrene	1.61	U	16.6	1.61	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Chrysene	1.02	U	16.6	1.02	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Dibenz(a,h)anthracene	3.62	U	16.6	3.62	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Fluoranthene	3.10	U	16.6	3.10	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Fluorene	2.36	U	16.6	2.36	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Indeno[1,2,3-cd]pyrene	3.49	U	33.3	3.49	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
2-Methylnaphthalene	2.73	U	16.6	2.73	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Phenanthrene	4.94	U	16.6	4.94	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Pyrene	1.83	U	16.6	1.83	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
1-Methylnaphthalene	1.57	U	16.6	1.57	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Naphthalene	1.35	U	16.6	1.35	ug/Kg		07/10/14 11:49	07/10/14 16:12	1
Acenaphthene	1.44	U	16.6	1.44	ug/Kg		07/10/14 11:49	07/10/14 16:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	25		10 - 148	07/10/14 11:49	07/10/14 16:12	1
2-Fluorobiphenyl	71		38 - 130	07/10/14 11:49	07/10/14 16:12	1
2-Fluorophenol	78		25 - 132	07/10/14 11:49	07/10/14 16:12	1
Nitrobenzene-d5	74		10 - 155	07/10/14 11:49	07/10/14 16:12	1
Terphenyl-d14	83		53 - 134	07/10/14 11:49	07/10/14 16:12	1
Phenol-d5 (Surr)	66		27 - 130	07/10/14 11:49	07/10/14 16:12	1

**Lab Sample ID: LCS 600-138805/2-A**

**Matrix: Solid**

**Analysis Batch: 138879**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 138805**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	664	458.6		ug/Kg		69	57 - 130
Anthracene	664	480.8		ug/Kg		72	58 - 130
Benzo[a]anthracene	664	509.9		ug/Kg		77	61 - 132
Benzo[b]fluoranthene	664	402.8		ug/Kg		61	54 - 130
Benzo[k]fluoranthene	664	381.1		ug/Kg		57	56 - 136
Benzo[g,h,i]perylene	664	419.2		ug/Kg		63	58 - 150
Benzo[a]pyrene	664	389.4		ug/Kg		59	59 - 130
Chrysene	664	489.1		ug/Kg		74	64 - 130
Dibenz(a,h)anthracene	664	454.0		ug/Kg		68	58 - 138
Fluoranthene	664	496.8		ug/Kg		75	63 - 130
Fluorene	664	476.9		ug/Kg		72	52 - 130
Indeno[1,2,3-cd]pyrene	664	450.2		ug/Kg		68	56 - 150
2-Methylnaphthalene	664	481.8		ug/Kg		73	51 - 130
Phenanthrene	664	469.1		ug/Kg		71	57 - 130
Pyrene	664	483.7		ug/Kg		73	60 - 135
1-Methylnaphthalene	664	474.5		ug/Kg		71	51 - 130

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 600-138805/2-A**

**Matrix: Solid**

**Analysis Batch: 138879**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 138805**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	664	474.2		ug/Kg		71	59 - 130
Acenaphthene	664	468.8		ug/Kg		71	58 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	68		10 - 148
2-Fluorobiphenyl	76		38 - 130
2-Fluorophenol	83		25 - 132
Nitrobenzene-d5	78		10 - 155
Terphenyl-d14	80		53 - 134
Phenol-d5 (Surr)	81		27 - 130

**Lab Sample ID: 600-94501-A-24-F MS**

**Matrix: Solid**

**Analysis Batch: 138879**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 138805**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	94.6	J	713	584.8		ug/Kg	✳	69	32 - 137
Anthracene	221		713	722.2		ug/Kg	✳	70	35 - 115
Benzo[a]anthracene	584		713	920.6		ug/Kg	✳	47	38 - 128
Benzo[b]fluoranthene	1060		713	1247	N1	ug/Kg	✳	26	40 - 131
Benzo[k]fluoranthene	523		713	670.6	N1	ug/Kg	✳	21	33 - 137
Benzo[g,h,i]perylene	813		713	1159		ug/Kg	✳	49	34 - 110
Benzo[a]pyrene	581		713	944.5		ug/Kg	✳	51	30 - 130
Chrysene	814		713	1070		ug/Kg	✳	36	36 - 130
Dibenz(a,h)anthracene	38.8	U	713	1069	N1	ug/Kg	✳	150	19 - 125
Fluoranthene	778		713	1018	N1	ug/Kg	✳	34	37 - 132
Fluorene	25.2	U	713	564.2		ug/Kg	✳	79	36 - 122
Indeno[1,2,3-cd]pyrene	876		713	1252		ug/Kg	✳	53	30 - 112
2-Methylnaphthalene	29.3	U	713	483.6		ug/Kg	✳	68	32 - 136
Phenanthrene	240		713	746.1		ug/Kg	✳	71	26 - 126
Pyrene	736		713	1027		ug/Kg	✳	41	28 - 138
1-Methylnaphthalene	16.8	U	713	500.7		ug/Kg	✳	70	63 - 137
Naphthalene	58.0	J	713	527.3		ug/Kg	✳	66	30 - 112
Acenaphthene	15.4	U	713	522.9		ug/Kg	✳	73	25 - 134

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	0	X	10 - 148
2-Fluorobiphenyl	72		38 - 130
2-Fluorophenol	64		25 - 132
Nitrobenzene-d5	64		10 - 155
Terphenyl-d14	70		53 - 134
Phenol-d5 (Surr)	68		27 - 130

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-94501-A-24-G MSD

Matrix: Solid

Analysis Batch: 138879

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 138805

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
Acenaphthylene	94.6	J	713	541.5		ug/Kg	☼	63		32 - 137	8		30
Anthracene	221		713	709.6		ug/Kg	☼	69		35 - 115	2		30
Benzo[a]anthracene	584		713	887.7		ug/Kg	☼	43		38 - 128	4		30
Benzo[b]fluoranthene	1060		713	1091	N1	ug/Kg	☼	4		40 - 131	13		30
Benzo[k]fluoranthene	523		713	787.7		ug/Kg	☼	37		33 - 137	16		30
Benzo[g,h,i]perylene	813		713	1167		ug/Kg	☼	50		34 - 110	1		30
Benzo[a]pyrene	581		713	817.6		ug/Kg	☼	33		30 - 130	14		30
Chrysene	814		713	1020	N1	ug/Kg	☼	29		36 - 130	5		30
Dibenz(a,h)anthracene	38.8	U	713	1108	N1	ug/Kg	☼	155		19 - 125	4		30
Fluoranthene	778		713	997.7	N1	ug/Kg	☼	31		37 - 132	2		30
Fluorene	25.2	U	713	535.1		ug/Kg	☼	75		36 - 122	5		30
Indeno[1,2,3-cd]pyrene	876		713	1309		ug/Kg	☼	61		30 - 112	4		30
2-Methylnaphthalene	29.3	U	713	468.5		ug/Kg	☼	66		32 - 136	3		30
Phenanthrene	240		713	715.5		ug/Kg	☼	67		26 - 126	4		30
Pyrene	736		713	1002		ug/Kg	☼	37		28 - 138	2		30
1-Methylnaphthalene	16.8	U	713	480.3		ug/Kg	☼	67		63 - 137	4		30
Naphthalene	58.0	J	713	499.8		ug/Kg	☼	62		30 - 112	5		30
Acenaphthene	15.4	U	713	519.9		ug/Kg	☼	73		25 - 134	1		30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	0	X	10 - 148
2-Fluorobiphenyl	73		38 - 130
2-Fluorophenol	70		25 - 132
Nitrobenzene-d5	68		10 - 155
Terphenyl-d14	82		53 - 134
Phenol-d5 (Surr)	68		27 - 130

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 600-138474/2

Matrix: Solid

Analysis Batch: 138474

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethanol	0.560	U	5.00	0.560	mg/L			07/07/14 10:52	1
Isobutyl alcohol	1.26	U	5.00	1.26	mg/L			07/07/14 10:52	1
Isopropyl alcohol	0.850	U	5.00	0.850	mg/L			07/07/14 10:52	1
Methanol	0.910	U	5.00	0.910	mg/L			07/07/14 10:52	1
n-Butanol	1.48	U	5.00	1.48	mg/L			07/07/14 10:52	1
Propanol	0.760	U	5.00	0.760	mg/L			07/07/14 10:52	1

Lab Sample ID: LCS 600-138474/3

Matrix: Solid

Analysis Batch: 138474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
Ethanol	50.0	47.05		mg/L		94	70 - 130
Isobutyl alcohol	50.0	51.29		mg/L		103	70 - 130

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) (Continued)

**Lab Sample ID: LCS 600-138474/3**

**Matrix: Solid**

**Analysis Batch: 138474**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Isopropyl alcohol	50.0	53.30		mg/L		107	70 - 130	
Methanol	50.0	53.86		mg/L		108	70 - 130	
n-Butanol	50.0	50.91		mg/L		102	70 - 130	
Propanol	50.0	49.64		mg/L		99	70 - 130	

**Lab Sample ID: 600-94821-D-6 MS**

**Matrix: Water**

**Analysis Batch: 138474**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Ethanol	0.560	U	50.0	45.28		mg/L		91	70 - 130	
Isobutyl alcohol	1.26	U	50.0	50.46		mg/L		101	70 - 130	
Isopropyl alcohol	0.850	U	50.0	57.47		mg/L		115	70 - 130	
Methanol	0.910	U	50.0	37.40		mg/L		75	70 - 130	
n-Butanol	1.48	U	50.0	50.03		mg/L		100	70 - 130	
Propanol	0.760	U	50.0	51.17		mg/L		102	70 - 130	

**Lab Sample ID: 600-94821-D-6 MSD**

**Matrix: Water**

**Analysis Batch: 138474**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
											RPD	Limit
Ethanol	0.560	U	50.0	51.33		mg/L		103	70 - 130	13	30	
Isobutyl alcohol	1.26	U	50.0	51.56		mg/L		103	70 - 130	2	30	
Isopropyl alcohol	0.850	U	50.0	51.11		mg/L		102	70 - 130	12	30	
Methanol	0.910	U	50.0	45.30		mg/L		91	70 - 130	19	30	
n-Butanol	1.48	U	50.0	51.22		mg/L		102	70 - 130	2	30	
Propanol	0.760	U	50.0	50.04		mg/L		100	70 - 130	2	30	

**Lab Sample ID: MB 600-138775/2**

**Matrix: Water**

**Analysis Batch: 138775**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Allyl alcohol	5.00	U	5.00	5.00	mg/L			07/10/14 10:08	1

**Lab Sample ID: MB 600-138775/8**

**Matrix: Water**

**Analysis Batch: 138775**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Propargyl alcohol	5.00	U	5.00	5.00	mg/L			07/10/14 11:50	1

**Lab Sample ID: LCS 600-138775/3**

**Matrix: Water**

**Analysis Batch: 138775**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Allyl alcohol	50.0	50.13		mg/L		100	70 - 130	

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) (Continued)

**Lab Sample ID:** LCS 600-138775/9  
**Matrix:** Water  
**Analysis Batch:** 138775

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Propargyl alcohol	50.0	35.68		mg/L		71	70 - 130

**Lab Sample ID:** LCSD 600-138775/10  
**Matrix:** Water  
**Analysis Batch:** 138775

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Propargyl alcohol	50.0	41.29		mg/L		83	70 - 130	15	30

**Lab Sample ID:** LCSD 600-138775/4  
**Matrix:** Water  
**Analysis Batch:** 138775

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Allyl alcohol	50.0	50.33		mg/L		101	70 - 130	0	30

**Lab Sample ID:** MB 600-138810/2  
**Matrix:** Water  
**Analysis Batch:** 138810

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butyl Alcohol	5.00	U	5.00	5.00	mg/L			07/10/14 13:10	1

**Lab Sample ID:** LCS 600-138810/3  
**Matrix:** Water  
**Analysis Batch:** 138810

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butyl Alcohol	50.0	51.42		mg/L		103	70 - 130

**Lab Sample ID:** LCSD 600-138810/4  
**Matrix:** Water  
**Analysis Batch:** 138810

**Client Sample ID:** Lab Control Sample Dup  
**Prep Type:** Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butyl Alcohol	50.0	50.45		mg/L		101	70 - 130	2	30

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

**Lab Sample ID:** MB 600-138478/1-A  
**Matrix:** Solid  
**Analysis Batch:** 138514

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 138478

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		07/07/14 10:09	07/07/14 14:48	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/07/14 14:48	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		07/07/14 10:09	07/07/14 14:48	1
C6-C35	3.80	U	10.0	3.80	mg/Kg		07/07/14 10:09	07/07/14 14:48	1

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

**Lab Sample ID:** MB 600-138478/1-A  
**Matrix:** Solid  
**Analysis Batch:** 138514

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 138478

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>o</i> -Terphenyl	88		70 - 130	07/07/14 10:09	07/07/14 14:48	1

**Lab Sample ID:** LCS 600-138478/2-A  
**Matrix:** Solid  
**Analysis Batch:** 138514

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 138478

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
C6-C12	250	208.9		mg/Kg		84	75 - 125
>C12-C28	250	224.8		mg/Kg		90	75 - 125
C6-C35	500	433.7		mg/Kg		87	75 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	80		70 - 130

**Lab Sample ID:** 600-94898-4 MS  
**Matrix:** Solid  
**Analysis Batch:** 138514

**Client Sample ID:** B2 @ 7.5-10 (MW1)  
**Prep Type:** Total/NA  
**Prep Batch:** 138478

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
C6-C12	3.77	U	248	224.2		mg/Kg		90	75 - 125
>C12-C28	4.03	U	248	239.9		mg/Kg		97	75 - 125
C6-C35	3.77	U	497	464.1		mg/Kg		93	75 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	83		70 - 130

**Lab Sample ID:** 600-94898-4 MSD  
**Matrix:** Solid  
**Analysis Batch:** 138514

**Client Sample ID:** B2 @ 7.5-10 (MW1)  
**Prep Type:** Total/NA  
**Prep Batch:** 138478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	
				Result	Qualifier					RPD	Limit
C6-C12	3.77	U	248	223.2		mg/Kg		90	75 - 125	0	20
>C12-C28	4.03	U	248	238.0		mg/Kg		96	75 - 125	1	20
C6-C35	3.77	U	497	461.2		mg/Kg		93	75 - 125	1	20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	84		70 - 130

**Lab Sample ID:** MB 600-138598/1-A  
**Matrix:** Water  
**Analysis Batch:** 138600

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 138598

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
C6-C12	0.830	U	5.00	0.830	mg/L		07/08/14 12:02	07/08/14 13:36	1
>C12-C28	0.960	U	5.00	0.960	mg/L		07/08/14 12:02	07/08/14 13:36	1
>C28-C35	0.960	U	5.00	0.960	mg/L		07/08/14 12:02	07/08/14 13:36	1
C6-C35	0.830	U	5.00	0.830	mg/L		07/08/14 12:02	07/08/14 13:36	1

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

**Lab Sample ID:** MB 600-138598/1-A  
**Matrix:** Water  
**Analysis Batch:** 138600

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 138598

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>o</i> -Terphenyl	119		70 - 130	07/08/14 12:02	07/08/14 13:36	1

**Lab Sample ID:** LCS 600-138598/2-A  
**Matrix:** Water  
**Analysis Batch:** 138600

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 138598

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
C6-C12	33.3	31.42		mg/L		94	75 - 125
>C12-C28	33.3	30.38		mg/L		91	75 - 125
C6-C35	66.7	61.80		mg/L		93	75 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	115		70 - 130

**Lab Sample ID:** 600-94993-A-30-B MS  
**Matrix:** Water  
**Analysis Batch:** 138600

**Client Sample ID:** Matrix Spike  
**Prep Type:** Total/NA  
**Prep Batch:** 138598

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
C6-C12	0.830	U	33.3	30.98		mg/L		93	75 - 125
>C12-C28	0.960	U	33.3	30.07		mg/L		90	75 - 125
C6-C35	0.830	U	66.7	61.05		mg/L		92	75 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	116		70 - 130

**Lab Sample ID:** 600-94993-A-30-C MSD  
**Matrix:** Water  
**Analysis Batch:** 138600

**Client Sample ID:** Matrix Spike Duplicate  
**Prep Type:** Total/NA  
**Prep Batch:** 138598

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	
				Result	Qualifier					RPD	Limit
C6-C12	0.830	U	33.3	28.70		mg/L		86	75 - 125	8	20
>C12-C28	0.960	U	33.3	28.47		mg/L		85	75 - 125	5	20
C6-C35	0.830	U	66.7	57.17		mg/L		86	75 - 125	7	20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	113		70 - 130

## Method: 1664A - HEM and SGT-HEM

**Lab Sample ID:** MB 600-138562/1-A  
**Matrix:** Water  
**Analysis Batch:** 138563

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 138562

Analyte	MB MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
HEM (Oil and Grease)	1.00	U	3.00	1.00	mg/L		07/08/14 08:11	07/08/14 08:14	1

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: 1664A - HEM and SGT-HEM (Continued)

**Lab Sample ID:** LCS 600-138562/2-A  
**Matrix:** Water  
**Analysis Batch:** 138563

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 138562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil and Grease)	40.0	36.80		mg/L		92	79 - 114

**Lab Sample ID:** 600-94940-A-3-B MS  
**Matrix:** Water  
**Analysis Batch:** 138563

**Client Sample ID:** Matrix Spike  
**Prep Type:** Total/NA  
**Prep Batch:** 138562

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil and Grease)	1.03	U	41.2	39.48		mg/L		96	78 - 114

**Lab Sample ID:** 600-94940-A-3-C MSD  
**Matrix:** Water  
**Analysis Batch:** 138563

**Client Sample ID:** Matrix Spike Duplicate  
**Prep Type:** Total/NA  
**Prep Batch:** 138562

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil and Grease)	1.03	U	41.2	39.18		mg/L		95	78 - 114	1	18

## Method: 9071B - HEM and SGT-HEM

**Lab Sample ID:** MB 600-138490/1-A  
**Matrix:** Solid  
**Analysis Batch:** 138491

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 138490

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil and Grease)	29.85	J	49.8	1.18	mg/Kg		07/07/14 11:00	07/07/14 11:01	1

**Lab Sample ID:** LCS 600-138490/2-A  
**Matrix:** Solid  
**Analysis Batch:** 138491

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 138490

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil and Grease)	3990	4008		mg/Kg		100	70 - 130

**Lab Sample ID:** 600-94898-4 MS  
**Matrix:** Solid  
**Analysis Batch:** 138491

**Client Sample ID:** B2 @ 7.5-10 (MW1)  
**Prep Type:** Total/NA  
**Prep Batch:** 138490

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil and Grease)	148	b	3950	3953		mg/Kg		96	70 - 130

**Lab Sample ID:** 600-94898-4 MSD  
**Matrix:** Solid  
**Analysis Batch:** 138491

**Client Sample ID:** B2 @ 7.5-10 (MW1)  
**Prep Type:** Total/NA  
**Prep Batch:** 138490

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil and Grease)	148	b	3920	3912		mg/Kg		96	70 - 130	1	30

TestAmerica Houston

# QC Sample Results

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: Moisture - Percent Moisture

Lab Sample ID: 600-94898-1 DU  
Matrix: Solid  
Analysis Batch: 138816

Client Sample ID: B1 @ 0-2.5  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	13		14		%		5	20
Percent Solids	87		86		%		0.7	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

## Unadjusted Detection Limits

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
Benzene	5.00	0.630	ug/Kg	8260B
Benzene	1.00	0.0800	ug/L	8260B
Ethylbenzene	5.00	1.02	ug/Kg	8260B
Ethylbenzene	1.00	0.110	ug/L	8260B
Methyl tert-butyl ether	5.00	1.83	ug/Kg	8260B
Methyl tert-butyl ether	1.00	0.120	ug/L	8260B
Toluene	5.00	1.38	ug/Kg	8260B
Toluene	1.00	0.150	ug/L	8260B
Xylenes, Total	5.00	1.13	ug/Kg	8260B
Xylenes, Total	3.00	0.260	ug/L	8260B

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
1-Methylnaphthalene	16.7	1.57	ug/Kg	8270C LL
2-Methylnaphthalene	16.7	2.74	ug/Kg	8270C LL
Acenaphthene	16.7	1.44	ug/Kg	8270C LL
Acenaphthylene	16.7	1.00	ug/Kg	8270C LL
Anthracene	16.7	1.28	ug/Kg	8270C LL
Benzo[a]anthracene	16.7	1.38	ug/Kg	8270C LL
Benzo[a]pyrene	16.7	1.61	ug/Kg	8270C LL
Benzo[b]fluoranthene	33.3	1.72	ug/Kg	8270C LL
Benzo[g,h,i]perylene	16.7	5.07	ug/Kg	8270C LL
Benzo[k]fluoranthene	33.3	1.49	ug/Kg	8270C LL
Chrysene	16.7	1.02	ug/Kg	8270C LL
Dibenz(a,h)anthracene	16.7	3.63	ug/Kg	8270C LL
Fluoranthene	16.7	3.11	ug/Kg	8270C LL
Fluorene	16.7	2.36	ug/Kg	8270C LL
Indeno[1,2,3-cd]pyrene	33.3	3.50	ug/Kg	8270C LL
Naphthalene	16.7	1.35	ug/Kg	8270C LL
Phenanthrene	16.7	4.95	ug/Kg	8270C LL
Pyrene	16.7	1.83	ug/Kg	8270C LL

### Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	MQL	MDL	Units	Method
Allyl alcohol	5.00	5.00	mg/L	8015B
Ethanol	5.00	0.560	mg/L	8015B
Isobutyl alcohol	5.00	1.26	mg/L	8015B
Isopropyl alcohol	5.00	0.850	mg/L	8015B
Methanol	5.00	0.910	mg/L	8015B
n-Butanol	5.00	1.48	mg/L	8015B
Propanol	5.00	0.760	mg/L	8015B
Propargyl alcohol	5.00	5.00	mg/L	8015B
sec-Butyl Alcohol	5.00	5.00	mg/L	8015B

### Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - Soluble

Analyte	MQL	MDL	Units	Method
Methanol	5.00	1.04	mg/L	8015B

TestAmerica Houston

# Unadjusted Detection Limits

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	10.0	4.06	mg/Kg	TX 1005
>C12-C28	5.00	0.960	mg/L	TX 1005
>C28-C35	10.0	4.06	mg/Kg	TX 1005
>C28-C35	5.00	0.960	mg/L	TX 1005
C6-C12	10.0	3.80	mg/Kg	TX 1005
C6-C12	5.00	0.830	mg/L	TX 1005
C6-C35	10.0	3.80	mg/Kg	TX 1005
C6-C35	5.00	0.830	mg/L	TX 1005

## General Chemistry

Analyte	MQL	MDL	Units	Method
HEM (Oil and Grease)	3.00	1.00	mg/L	1664A
HEM (Oil and Grease)	50.0	1.19	mg/Kg	9071B
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

# QC Association Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## GC/MS VOA

### Analysis Batch: 138457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	8260B	
600-94898-2	B1 @ 7.5-10	Total/NA	Solid	8260B	
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	8260B	
LCS 600-138457/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-138457/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-138457/6	Method Blank	Total/NA	Solid	8260B	

### Analysis Batch: 138458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-13	MW1 (B2)	Total/NA	Water	8260B	
LCS 600-138458/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-138458/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-138458/7	Method Blank	Total/NA	Water	8260B	

### Analysis Batch: 138567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-4	B2 @ 7.5-10 (MW1)	Total/NA	Solid	8260B	
600-94898-5	B3 @ 0-2.5	Total/NA	Solid	8260B	
600-94898-6	B3 @ 7.5-10	Total/NA	Solid	8260B	
600-94898-7	B4 @ 2.5-5	Total/NA	Solid	8260B	
600-94898-8	B4 @ 7.5-10	Total/NA	Solid	8260B	
600-94898-9	B5 @ 0-2.5	Total/NA	Solid	8260B	
600-94898-10	B5 @ 7.5-10	Total/NA	Solid	8260B	
600-94898-11	B6 @ 0-2.5	Total/NA	Solid	8260B	
600-94898-12	B6 @ 7.5-10	Total/NA	Solid	8260B	
LCS 600-138567/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-138567/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-138567/6	Method Blank	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Analysis Batch: 138803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-138805/1-A	Method Blank	Total/NA	Solid	8270C LL	138805

### Prep Batch: 138805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94501-A-24-F MS	Matrix Spike	Total/NA	Solid	3546	
600-94501-A-24-G MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	3546	
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	3546	
LCS 600-138805/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 600-138805/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 138879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94501-A-24-F MS	Matrix Spike	Total/NA	Solid	8270C LL	138805
600-94501-A-24-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8270C LL	138805
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	8270C LL	138805
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	8270C LL	138805

TestAmerica Houston

# QC Association Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 138879 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-138805/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	138805

## GC VOA

### Analysis Batch: 138474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94821-D-6 MS	Matrix Spike	Total/NA	Water	8015B	
600-94821-D-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8015B	
600-94898-1	B1 @ 0-2.5	Soluble	Solid	8015B	138502
600-94898-2	B1 @ 7.5-10	Soluble	Solid	8015B	138502
600-94898-3	B2 0-2.5 (MW1)	Soluble	Solid	8015B	138502
600-94898-4	B2 @ 7.5-10 (MW1)	Soluble	Solid	8015B	138502
600-94898-5	B3 @ 0-2.5	Soluble	Solid	8015B	138502
600-94898-6	B3 @ 7.5-10	Soluble	Solid	8015B	138502
600-94898-7	B4 @ 2.5-5	Soluble	Solid	8015B	138502
600-94898-8	B4 @ 7.5-10	Soluble	Solid	8015B	138502
600-94898-9	B5 @ 0-2.5	Soluble	Solid	8015B	138502
600-94898-10	B5 @ 7.5-10	Soluble	Solid	8015B	138502
600-94898-11	B6 @ 0-2.5	Soluble	Solid	8015B	138502
600-94898-12	B6 @ 7.5-10	Soluble	Solid	8015B	138502
600-94898-14	MW1 (B2)	Total/NA	Water	8015B	
LCS 600-138474/3	Lab Control Sample	Total/NA	Solid	8015B	
MB 600-138474/2	Method Blank	Total/NA	Solid	8015B	

### Leach Batch: 138502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Soluble	Solid	DI Leach	
600-94898-2	B1 @ 7.5-10	Soluble	Solid	DI Leach	
600-94898-3	B2 0-2.5 (MW1)	Soluble	Solid	DI Leach	
600-94898-4	B2 @ 7.5-10 (MW1)	Soluble	Solid	DI Leach	
600-94898-5	B3 @ 0-2.5	Soluble	Solid	DI Leach	
600-94898-6	B3 @ 7.5-10	Soluble	Solid	DI Leach	
600-94898-7	B4 @ 2.5-5	Soluble	Solid	DI Leach	
600-94898-8	B4 @ 7.5-10	Soluble	Solid	DI Leach	
600-94898-9	B5 @ 0-2.5	Soluble	Solid	DI Leach	
600-94898-10	B5 @ 7.5-10	Soluble	Solid	DI Leach	
600-94898-11	B6 @ 0-2.5	Soluble	Solid	DI Leach	
600-94898-12	B6 @ 7.5-10	Soluble	Solid	DI Leach	

### Analysis Batch: 138775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-14	MW1 (B2)	Total/NA	Water	8015B	
600-94898-14	MW1 (B2)	Total/NA	Water	8015B	
LCS 600-138775/3	Lab Control Sample	Total/NA	Water	8015B	
LCS 600-138775/9	Lab Control Sample	Total/NA	Water	8015B	
LCSD 600-138775/10	Lab Control Sample Dup	Total/NA	Water	8015B	
LCSD 600-138775/4	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 600-138775/2	Method Blank	Total/NA	Water	8015B	
MB 600-138775/8	Method Blank	Total/NA	Water	8015B	

TestAmerica Houston

# QC Association Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## GC VOA (Continued)

### Analysis Batch: 138810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-14	MW1 (B2)	Total/NA	Water	8015B	
LCS 600-138810/3	Lab Control Sample	Total/NA	Water	8015B	
LCS 600-138810/4	Lab Control Sample Dup	Total/NA	Water	8015B	
MB 600-138810/2	Method Blank	Total/NA	Water	8015B	

## GC Semi VOA

### Prep Batch: 138478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-2	B1 @7.5-10	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-4	B2 @ 7.5-10 (MW1)	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-4 MS	B2 @ 7.5-10 (MW1)	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-4 MSD	B2 @ 7.5-10 (MW1)	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-5	B3 @ 0-2.5	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-6	B3 @ 7.5-10	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-7	B4 @ 2.5-5	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-8	B4 @ 7.5-10	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-9	B5 @ 0-2.5	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-10	B5 @ 7.5-10	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-11	B6 @ 0-2.5	Total/NA	Solid	TX_1005_S_Pre p	
600-94898-12	B6 @ 7.5-10	Total/NA	Solid	TX_1005_S_Pre p	
LCS 600-138478/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Pre p	
MB 600-138478/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Pre p	

### Analysis Batch: 138514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	TX 1005	138478
600-94898-2	B1 @7.5-10	Total/NA	Solid	TX 1005	138478
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	TX 1005	138478
600-94898-4	B2 @ 7.5-10 (MW1)	Total/NA	Solid	TX 1005	138478
600-94898-4 MS	B2 @ 7.5-10 (MW1)	Total/NA	Solid	TX 1005	138478
600-94898-4 MSD	B2 @ 7.5-10 (MW1)	Total/NA	Solid	TX 1005	138478
600-94898-5	B3 @ 0-2.5	Total/NA	Solid	TX 1005	138478
600-94898-6	B3 @ 7.5-10	Total/NA	Solid	TX 1005	138478
600-94898-7	B4 @ 2.5-5	Total/NA	Solid	TX 1005	138478
600-94898-8	B4 @ 7.5-10	Total/NA	Solid	TX 1005	138478

TestAmerica Houston

# QC Association Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## GC Semi VOA (Continued)

### Analysis Batch: 138514 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-138478/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	138478
MB 600-138478/1-A	Method Blank	Total/NA	Solid	TX 1005	138478

### Analysis Batch: 138516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-9	B5 @ 0-2.5	Total/NA	Solid	TX 1005	138478
600-94898-10	B5 @ 7.5-10	Total/NA	Solid	TX 1005	138478
600-94898-11	B6 @ 0-2.5	Total/NA	Solid	TX 1005	138478
600-94898-12	B6 @ 7.5-10	Total/NA	Solid	TX 1005	138478

### Prep Batch: 138598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-13	MW1 (B2)	Total/NA	Water	TX_1005_W_Pr ep	
600-94993-A-30-B MS	Matrix Spike	Total/NA	Water	TX_1005_W_Pr ep	
600-94993-A-30-C MSD	Matrix Spike Duplicate	Total/NA	Water	TX_1005_W_Pr ep	
LCS 600-138598/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Pr ep	
MB 600-138598/1-A	Method Blank	Total/NA	Water	TX_1005_W_Pr ep	

### Analysis Batch: 138600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-13	MW1 (B2)	Total/NA	Water	TX 1005	138598
600-94993-A-30-B MS	Matrix Spike	Total/NA	Water	TX 1005	138598
600-94993-A-30-C MSD	Matrix Spike Duplicate	Total/NA	Water	TX 1005	138598
LCS 600-138598/2-A	Lab Control Sample	Total/NA	Water	TX 1005	138598
MB 600-138598/1-A	Method Blank	Total/NA	Water	TX 1005	138598

## General Chemistry

### Prep Batch: 138490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	9071B	
600-94898-2	B1 @ 7.5-10	Total/NA	Solid	9071B	
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	9071B	
600-94898-4	B2 @ 7.5-10 (MW1)	Total/NA	Solid	9071B	
600-94898-4 MS	B2 @ 7.5-10 (MW1)	Total/NA	Solid	9071B	
600-94898-4 MSD	B2 @ 7.5-10 (MW1)	Total/NA	Solid	9071B	
600-94898-5	B3 @ 0-2.5	Total/NA	Solid	9071B	
600-94898-6	B3 @ 7.5-10	Total/NA	Solid	9071B	
600-94898-7	B4 @ 2.5-5	Total/NA	Solid	9071B	
600-94898-8	B4 @ 7.5-10	Total/NA	Solid	9071B	
600-94898-9	B5 @ 0-2.5	Total/NA	Solid	9071B	
600-94898-10	B5 @ 7.5-10	Total/NA	Solid	9071B	
600-94898-11	B6 @ 0-2.5	Total/NA	Solid	9071B	
600-94898-12	B6 @ 7.5-10	Total/NA	Solid	9071B	
LCS 600-138490/2-A	Lab Control Sample	Total/NA	Solid	9071B	
MB 600-138490/1-A	Method Blank	Total/NA	Solid	9071B	

TestAmerica Houston

# QC Association Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## General Chemistry (Continued)

### Analysis Batch: 138491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	9071B	138490
600-94898-2	B1 @ 7.5-10	Total/NA	Solid	9071B	138490
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	9071B	138490
600-94898-4	B2 @ 7.5-10 (MW1)	Total/NA	Solid	9071B	138490
600-94898-4 MS	B2 @ 7.5-10 (MW1)	Total/NA	Solid	9071B	138490
600-94898-4 MSD	B2 @ 7.5-10 (MW1)	Total/NA	Solid	9071B	138490
600-94898-5	B3 @ 0-2.5	Total/NA	Solid	9071B	138490
600-94898-6	B3 @ 7.5-10	Total/NA	Solid	9071B	138490
600-94898-7	B4 @ 2.5-5	Total/NA	Solid	9071B	138490
600-94898-8	B4 @ 7.5-10	Total/NA	Solid	9071B	138490
600-94898-9	B5 @ 0-2.5	Total/NA	Solid	9071B	138490
600-94898-10	B5 @ 7.5-10	Total/NA	Solid	9071B	138490
600-94898-11	B6 @ 0-2.5	Total/NA	Solid	9071B	138490
600-94898-12	B6 @ 7.5-10	Total/NA	Solid	9071B	138490
LCS 600-138490/2-A	Lab Control Sample	Total/NA	Solid	9071B	138490
MB 600-138490/1-A	Method Blank	Total/NA	Solid	9071B	138490

### Prep Batch: 138562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-16	MW1 (B2)	Total/NA	Water	1664A	
600-94940-A-3-B MS	Matrix Spike	Total/NA	Water	1664A	
600-94940-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	1664A	
LCS 600-138562/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 600-138562/1-A	Method Blank	Total/NA	Water	1664A	

### Analysis Batch: 138563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-16	MW1 (B2)	Total/NA	Water	1664A	138562
600-94940-A-3-B MS	Matrix Spike	Total/NA	Water	1664A	138562
600-94940-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	1664A	138562
LCS 600-138562/2-A	Lab Control Sample	Total/NA	Water	1664A	138562
MB 600-138562/1-A	Method Blank	Total/NA	Water	1664A	138562

### Analysis Batch: 138816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-94898-1	B1 @ 0-2.5	Total/NA	Solid	Moisture	
600-94898-1 DU	B1 @ 0-2.5	Total/NA	Solid	Moisture	
600-94898-3	B2 0-2.5 (MW1)	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B1 @ 0-2.5

Date Collected: 06/30/14 12:10

Date Received: 07/03/14 10:38

## Lab Sample ID: 600-94898-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138457	07/07/14 19:06	WS1	TAL HOU
Total/NA	Prep	3546			138805	07/10/14 13:16	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	138879	07/11/14 14:40	MBB	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 12:34	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/07/14 18:41	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU
Total/NA	Analysis	Moisture		1	138816	07/10/14 13:26	AYS	TAL HOU

## Client Sample ID: B1 @7.5-10

Date Collected: 06/30/14 12:15

Date Received: 07/03/14 10:38

## Lab Sample ID: 600-94898-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138457	07/07/14 19:31	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 12:46	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/07/14 19:14	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B2 0-2.5 (MW1)

Date Collected: 06/30/14 12:30

Date Received: 07/03/14 10:38

## Lab Sample ID: 600-94898-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138457	07/07/14 19:56	WS1	TAL HOU
Total/NA	Prep	3546			138805	07/10/14 13:16	FNC	TAL HOU
Total/NA	Analysis	8270C LL		5	138879	07/11/14 15:09	MBB	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 13:31	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/07/14 19:47	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU
Total/NA	Analysis	Moisture		1	138816	07/10/14 13:26	AYS	TAL HOU

# Lab Chronicle

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B2 @ 7.5-10 (MW1)

Lab Sample ID: 600-94898-4

Date Collected: 06/30/14 12:35

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 15:52	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 13:46	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/07/14 20:20	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B3 @ 0-2.5

Lab Sample ID: 600-94898-5

Date Collected: 06/30/14 01:20

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 16:16	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 13:58	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/07/14 22:33	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B3 @ 7.5-10

Lab Sample ID: 600-94898-6

Date Collected: 06/30/14 01:25

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 16:41	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 14:10	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/07/14 23:06	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B4 @ 2.5-5

Lab Sample ID: 600-94898-7

Date Collected: 06/30/14 02:05

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 17:05	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 14:22	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU

TestAmerica Houston

# Lab Chronicle

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B4 @ 2.5-5

Lab Sample ID: 600-94898-7

Date Collected: 06/30/14 02:05

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TX 1005		1	138514	07/07/14 23:39	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B4 @ 7.5-10

Lab Sample ID: 600-94898-8

Date Collected: 06/30/14 02:15

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 17:29	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 14:34	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138514	07/08/14 00:12	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B5 @ 0-2.5

Lab Sample ID: 600-94898-9

Date Collected: 06/30/14 03:10

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 17:53	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 14:46	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138516	07/07/14 19:14	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B5 @ 7.5-10

Lab Sample ID: 600-94898-10

Date Collected: 06/30/14 03:15

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 18:18	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 14:58	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138516	07/07/14 19:47	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

TestAmerica Houston

# Lab Chronicle

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Client Sample ID: B6 @ 0-2.5

Lab Sample ID: 600-94898-11

Date Collected: 06/30/14 04:10

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 18:42	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 15:13	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138516	07/07/14 20:20	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: B6 @ 7.5-10

Lab Sample ID: 600-94898-12

Date Collected: 06/30/14 04:15

Matrix: Solid

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138567	07/08/14 19:07	WS1	TAL HOU
Soluble	Leach	DI Leach			138502	07/07/14 10:50	JPS	TAL HOU
Soluble	Analysis	8015B		1	138474	07/07/14 15:28	JPS	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			138478	07/07/14 10:09	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138516	07/07/14 21:26	RJV	TAL HOU
Total/NA	Prep	9071B			138490	07/07/14 11:00	FNC	TAL HOU
Total/NA	Analysis	9071B		1	138491	07/07/14 11:01	FNC	TAL HOU

## Client Sample ID: MW1 (B2)

Lab Sample ID: 600-94898-13

Date Collected: 07/01/14 10:30

Matrix: Water

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	138458	07/07/14 15:07	WS1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			138598	07/08/14 12:02	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	138600	07/08/14 17:51	RJV	TAL HOU

## Client Sample ID: MW1 (B2)

Lab Sample ID: 600-94898-14

Date Collected: 07/01/14 10:30

Matrix: Water

Date Received: 07/03/14 10:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	138474	07/07/14 16:20	JPS	TAL HOU
Total/NA	Analysis	8015B		1	138775	07/10/14 10:46	JPS	TAL HOU
Total/NA	Analysis	8015B		1	138775	07/10/14 12:25	JPS	TAL HOU
Total/NA	Analysis	8015B		1	138810	07/10/14 13:55	JPS	TAL HOU

# Lab Chronicle

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

**Client Sample ID: MW1 (B2)**

**Lab Sample ID: 600-94898-16**

**Date Collected: 07/01/14 10:30**

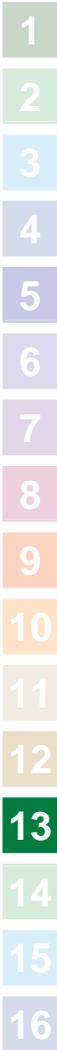
**Matrix: Water**

**Date Received: 07/03/14 10:38**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			138562	07/08/14 08:11	EAT	TAL HOU
Total/NA	Analysis	1664A		1	138563	07/08/14 08:14	EAT	TAL HOU

**Laboratory References:**

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



# Certification Summary

Client: STC Environmental Services  
Project/Site: Don Lewis

TestAmerica Job ID: 600-94898-1

## Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-14
Louisiana	NELAP	6	30643	06-30-15
Oklahoma	State Program	6	1309	08-31-14
Texas	NELAP	6	T104704223	10-31-14
USDA	Federal		P330-14-00192	06-06-17
Utah	NELAP	8	TX00083	10-31-14

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**STC ENVIRONMENTAL SERVICES INC.**  
 4754 RESEARCH DRIVE SAN ANTONIO, TEXAS 78240  
 OFFICE (210) 696-6286 \* FAX (210) 696-8761



dy Record

PROJECT NO. 14276 Client/Project Don Lewis / Ellipse Energy Record No. 2197

SAMPLE IDENTIFICATION	DATE AND TIME	G R A B		Sample Container (Size/Max'l)	Sample Type (Liquid Sludges, Etc.)	Preservative	ANALYSIS REQUESTED			LABORATORY REMARKS	
B1 @ 0-2.5	6/30 12:10p	X		(3) 2oz (1) 4oz glass	Soil	Drill	BTEX	X	X	X	
B1 @ 7.5-10	12:15p	X					TPH	X	X	X	
B2 @ 0-2.5 (MUI)	12:30p	X					Methanol	X	X	X	
B2 @ 7.5-10 (MUI)	12:35p	X					Oil + Grease	X	X	X	
B3 @ 0-2.5	1:20p	X									
B3 @ 7.5-10	1:25p	X									
B4 @ 2.5-5	2:05p	X									
B4 @ 7.5-10	2:15p	X									
B5 @ 0-2.5	3:10p	X									
B5 @ 7.5-10	3:15p	X									
B6 @ 0-2.5	4:10p	X									
B6 @ 7.5-10	4:15p	X									
Releasement by: [Signature] Date: 7/1/14 Time: 3:45p		Received by: [Signature] Date: 7-1-14 Time: 3:45pm		COC Seal No.		Samples Intact?: Yes I No I		Samples Chilled?: Yes I No I		Initials of Receiver:	
Company: STC		Releasement by: [Signature] Date: 7-1-14 Time: 3:45pm		Received by: [Signature] Date: 7-1-14 Time: 10:33		Samples Intact?: Yes I No I		Samples Chilled?: Yes I No I		Initials of Receiver:	
LABORATORY		Releasement by: [Signature]		Received by: [Signature]		Samples Intact?: Yes I No I		Samples Chilled?: Yes I No I		Initials of Receiver:	
RESULTS DUE BY:		REMARKS: PO# 477-14. Need TRRP Report + Check list. Hold for PAH		REPORT RESULTS TO:		Samples Intact?: Yes I No I		Samples Chilled?: Yes I No I		Initials of Receiver:	
KUSH CHARGES AUTHORIZED		1) Jahna Johns		2) Craig Imbler		Samples Intact?: Yes I No I		Samples Chilled?: Yes I No I		Initials of Receiver:	
YES I NO I		X		X		X		X		X	



**STC ENVIRONMENTAL SERVICES INC.**  
 4754 RESEARCH DRIVE SAN ANTONIO, TEXAS 78240  
 OFFICE (210) 696-6286 \* FAX (210) 696-8761

**Analysis Request and Chain of Custody Record**

PROJECT NO.	Client/Project	Regulatory ID	Record No.						
14276	Don Lewis / Ellipse Energy		2198						
SAMPLE IDENTIFICATION	DATE AND TIME	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED				LABORATORY REMARKS
					BTEX	TPH	Methanol	Oil + Grease	
MW1 (B2)	7/1/14 10:30a	(6) 100ml (40ml)		Hold + Chill	X	X			
		(3) 40ml VOA		Chill		X			
		(2) 1L Amber		Chill					
		(1) 1L Amber		Hold + Chill					X
Samplers: (Print)	Relinquished by: (Signature)	Date: (Time)	Received by: (Signature)	Date: (Time)	COC Seal No.				
Johna Johns	[Signature]	7/1/14 3:45p	[Signature]	7-1-14 3:45pm	45SPM				
Company: STC	Relinquished by: (Signature)	Date: (Time)	Received by: (Signature)	Date: (Time)	Samples Chilled? Yes / No / I				
LABORATORY	[Signature]	7-1-14 3:45pm	[Signature]	7/1/14 10:33p	Yes / No / I				
Results Due By:	REMARKS:	REPORT RESULTS TO:							
		1) Johna Johns							
Rush Changes Authorized Yes / No / I	2) Craig Tubley								

Sample Receipt Checklist

14 JUL 2 10:38

UNPACKED BY: DL

Loc: 600  
**94898**

Date/Time Received: \_\_\_\_\_

CLIENT: STC

JOB NUMBER: \_\_\_\_\_

CARRIER/DRIVER: Fed Ex

Custody Seal Present:

YES  NO

Number of Coolers Received: 1

IR THERMOMETER #: 549

THERMOMETER CORRECTION FACTOR: 1.9

Temperature of the sample(s):

Temp taken by: TB = Temp. Blank and/or SC = Sample Container

7/17/14 DL

Cooler ID	<u>Rw</u>	<u>B6</u>							
Temp	TB SC <u>2.1</u>	TB SC <u>1.3</u>	TB SC						
Corrected Temp	<u>4.0</u>	<u>3.2</u>							

Samples received on ice?  YES  NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

NO  YES

Base samples are >pH 12:  YES  NO

Acid preserved are <pH 2:  YES  NO

Lot # \_\_\_\_\_

Lot # \_\_\_\_\_

VOA headspace acceptable:  YES  NO  NA

VOA trip blanks included:  YES  NO  NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

YES  NO

COMMENTS:

7/17/14 DL

## Login Sample Receipt Checklist

Client: STC Environmental Services

Job Number: 600-94898-1

**Login Number: 94898**

**List Source: TestAmerica Houston**

**List Number: 1**

**Creator: Lockett, DuJuan D**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0, 3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston  
6310 Rothway Street  
Houston, TX 77040  
Tel: (713)690-4444

TestAmerica Job ID: 600-100008-1

Client Project/Site: 14276 / Don Lewis/ Ellipse Energy

For:

STC Environmental Services  
4754 Research Drive  
San Antonio, Texas 78240

Attn: Craig Tribley



Authorized for release by:

10/14/2014 5:01:17 PM

Sophia Shah, Project Management Assistant I  
[sophia.shah@testamericainc.com](mailto:sophia.shah@testamericainc.com)

Designee for

Sachin Kudchadkar, Senior Project Manager  
(713)690-4444

[sachin.kudchadkar@testamericainc.com](mailto:sachin.kudchadkar@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Appendix A

## Laboratory Data Package Cover Page - Page 1 of 4

This data package is for TestAmerica Houston job number 600-100008-1 and consists of:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**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.

Sophia Shah

Name (printed)



Signature

10/14/2014

Date

Project Management Assistant

Official Title (printed)

# Laboratory Review Checklist: Reportable Data - Page 2 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	10/14/2014
Project Name:	14276 / Don Lewis/ Ellipse Energy	Laboratory Job Number:	600-100008-1
Reviewer Name:	Sachin G Kudchadkar		

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	<b>Chain-of-custody (C-O-C)</b>					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	<b>Sample and quality control (QC) identification</b>					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test reports</b>					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?				X	
		If required for the project, are TICs reported?				X	
R4	O	<b>Surrogate recovery data</b>					
		Were surrogates added prior to extraction?				X	
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X	
R5	OI	<b>Test reports/summary forms for blank samples</b>					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	<b>Laboratory control samples (LCS):</b>					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?				X	
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	<b>Analytical duplicate data</b>					
		Were appropriate analytical duplicates analyzed for each matrix?				X	
		Were analytical duplicates analyzed at the appropriate frequency?				X	
		Were RPDs or relative standard deviations within the laboratory QC limits?				X	
R9	OI	<b>Method quantitation limits (MQLs):</b>					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	<b>Other problems/anomalies</b>					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Review checklist: Supporting Data - Page 3 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	10/14/2014
Project Name:	14276 / Don Lewis/ Ellipse Energy	Laboratory Job Number:	600-100008-1
Reviewer Name:	Sachin G Kudchadkar		

# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?			X		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	<b>Mass spectral tuning</b>					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	<b>Internal standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	<b>Raw data (NELAC Section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	<b>Tentatively identified compounds (TICs)</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) results</b>					
		Were percent recoveries within method QC limits?			X		
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	<b>Proficiency test reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/validation documentation for methods (NELAC Chapter 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory standard operating procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

# Laboratory Review Checklist: Exception Reports - Page 4 of 4

Laboratory Name:	TestAmerica Houston	LRC Date:	10/14/2014
Project Name:	14276 / Don Lewis/ Ellipse Energy	Laboratory Job Number:	600-100008-1
Reviewer Name:	Sachin G Kudchadkar		

ER # <sup>1</sup>	Description
1.	Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2.	O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3.	NA = Not applicable;
4.	NR = Not reviewed;
5.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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**Matrix:** Water  
**Method:** 8015B\_DAI  
**Date Analyzed:** 6/24/2014  
**Job #:** 600-91205  
**TALS Batch:** 137378  
**Units:** mg/L

Analyte	Instrument #	MDL	DCS Spike	Measured Result	MQL
2,2'-Oxybisethanol	CHFID00	2.990	3.000	3.443	5
2-Butoxyethanol	CHFID10	1.670	5.000	5.517	5
2-Ethoxyethanol	CHFID10	5.000	5.000	5.656	5
2-Methoxyethanol	CHFID10	5.000	5.000	5.540	5
Ethylene glycol	CHFID00	3.114	3	3.436	5
Isobutyl alcohol	CHFID00	1.260	3.000	3.104	5
Isopropyl alcohol	CHFID00	0.850	3.000	3.284	5
Methanol	CHFID00	0.910	3.000	3.308	5
n-Butanol	CHFID00	1.480	3.000	2.843	5
Propanol	CHFID00	0.760	3.000	2.891	5
Propylene glycol	CHFID00	1.344	3.000	2.942	5
sec-Butyl Alcohol	CHFID00	5.000	5.000	5.433	5
Triethylene Glycol	CHFID00	3.349	3	3.762	5

# Case Narrative

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

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**Job ID: 600-100008-1**

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**Laboratory: TestAmerica Houston**

**Narrative**

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**Job Narrative**  
**600-100008-1**

**Comments**

No additional comments.

**Receipt**

The sample was received on 10/8/2014 10:19 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

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# Method Summary

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

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Method	Method Description	Protocol	Laboratory
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	TAL HOU

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**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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# Sample Summary

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-100008-1	B2/MW1 0-2.5	Solid	10/05/14 16:30	10/07/14 10:19

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# Client Sample Results

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

**Client Sample ID: B2/MW1 0-2.5**

**Lab Sample ID: 600-100008-1**

Date Collected: 10/05/14 16:30

Matrix: Solid

Date Received: 10/07/14 10:19

**Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - SPLP West**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.99	J	5.00	1.04	mg/L			10/13/14 18:34	1

# Definitions/Glossary

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

## Qualifiers

### GC VOA

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# QC Sample Results

Client: STC Environmental Services  
 Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

**Lab Sample ID: MB 600-146465/2**

**Matrix: Solid**

**Analysis Batch: 146465**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			10/13/14 13:58	1

**Lab Sample ID: LCS 600-146465/3**

**Matrix: Solid**

**Analysis Batch: 146465**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methanol	50.0	51.22		mg/L		102	70 - 130

**Lab Sample ID: 600-100156-E-6 MS**

**Matrix: Solid**

**Analysis Batch: 146465**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methanol	1.04	U	50.0	52.21		mg/L		104	70 - 130

**Lab Sample ID: 600-100156-E-6 MSD**

**Matrix: Solid**

**Analysis Batch: 146465**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Methanol	1.04	U	50.0	44.33		mg/L		89	70 - 130	16	30

**Lab Sample ID: LB 600-146556/1-A**

**Matrix: Solid**

**Analysis Batch: 146465**

**Client Sample ID: Method Blank**

**Prep Type: SPLP West**

Analyte	LB Result	LB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methanol	1.04	U	5.00	1.04	mg/L			10/13/14 18:19	1

**Lab Sample ID: 600-100008-1 MS**

**Matrix: Solid**

**Analysis Batch: 146465**

**Client Sample ID: B2/MW1 0-2.5**

**Prep Type: SPLP West**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methanol	1.99	J	50.0	54.56		mg/L		105	70 - 130

# Unadjusted Detection Limits

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

## Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC) - SPLP West

Analyte	MQL	MDL	Units	Method
Methanol	5.00	1.04	mg/L	8015B

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# QC Association Summary

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

## GC VOA

### Analysis Batch: 146465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-100008-1	B2/MW1 0-2.5	SPLP West	Solid	8015B	146556
600-100008-1 MS	B2/MW1 0-2.5	SPLP West	Solid	8015B	146556
600-100156-E-6 MS	Matrix Spike	Total/NA	Solid	8015B	
600-100156-E-6 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	
LB 600-146556/1-A	Method Blank	SPLP West	Solid	8015B	146556
LCS 600-146465/3	Lab Control Sample	Total/NA	Solid	8015B	
MB 600-146465/2	Method Blank	Total/NA	Solid	8015B	

### Leach Batch: 146556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-100008-1	B2/MW1 0-2.5	SPLP West	Solid	1312	
600-100008-1 MS	B2/MW1 0-2.5	SPLP West	Solid	1312	
LB 600-146556/1-A	Method Blank	SPLP West	Solid	1312	

# Lab Chronicle

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

**Client Sample ID: B2/MW1 0-2.5**

**Lab Sample ID: 600-100008-1**

**Date Collected: 10/05/14 16:30**

**Matrix: Solid**

**Date Received: 10/07/14 10:19**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			146556	10/10/14 21:15	TWR	TAL HOU
SPLP West	Analysis	8015B		1	146465	10/13/14 18:34	JPS	TAL HOU

**Laboratory References:**

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

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# Certification Summary

Client: STC Environmental Services  
Project/Site: 14276 / Don Lewis/ Ellipse Energy

TestAmerica Job ID: 600-100008-1

## Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223	10-31-14

Analysis Method	Prep Method	Matrix	Analyte
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**APPENDIX D**  
**RELEASE DETERMINATION REPORT**



**Texas Commission on Environmental Quality**  
**PETROLEUM STORAGE TANK PROGRAM**  
**RELEASE DETERMINATION REPORT FORM**

**FORM INSTRUCTIONS:** Use this form to report 1) the results from the investigation of a suspected or confirmed release, or 2) to report the results of the permanent removal from service of a UST, or 3) the results of the routine removal of an AST from service, and/or 4) any routine environmental site assessment (ESA) at PST sites where a 'no further action' letter from TCEQ is desired (routine AST removals and routine ESAs are not specifically regulated by TCEQ). Refer to *Investigating and Reporting Releases from Petroleum Storage Tanks* (RG-411) for more information. Note, the initial report of a suspected or confirmed release must be made within 24 hours of discovery using the form, *PST Program Incident Report (IR) form (TCEQ-20097)*. Submit completed forms to PST-RPR, TCEQ, MC 137, P.O. Box 13087, Austin, Texas 78711-3087. **DO NOT MODIFY THIS FORM IN ANY WAY. Complete all applicable blanks.** Incomplete forms, including forms missing relevant attachments, will be returned without review.

**RDR FORM CHECKLIST**

**PLEASE NOTE: The following documents are required to be attached to this form upon submittal. Complete the checklist and attach each listed document to the back of the form, or provide a written statement explaining why a particular item on the checklist is not applicable/not available:**

- Copy of original Construction Notification form filed with the TCEQ regional office for the field construction activity.
- Scaled site diagram(s) showing location & layout of tank system(s) including pipe chases, dispensers, and any remote fill ports; all sampling points, North arrow, scale, nearest intersection of main roads. Previously removed tank systems should also be indicated.
- Written description of tank removal activities, including removal of substances from tanks, tank cleaning/purging/inerting activities, and tank condition (corrosion holes, tears, rust, etc.). Include description of piping and dispenser equipment condition.
- Written description of site sampling activities, including sample equipment used, decontamination procedures, sample collection and handling methods, sampling locations and summary of overall sampling rationale.
- Copies of signed laboratory reports, complete chain-of-custody and laboratory check-in sheet documentation including sample receipt temperature, sample preservation methods, date and time of sample collection, laboratory QA/QC etc.
- Waste disposal, treatment, recycling or reuse documentation, including waste manifests signed and dated by all relevant parties. Manifests should have all required signatures and dates, and show waste type, quantities and units.
- Photographs (originals or high resolution color copies) of the site showing all parts of tank system (tanks, dispensers, piping, etc.), all excavated areas including excavation bottoms, stockpiles, etc.
- Tank destruction documentation (no. of tanks, size(s), former contents, tank composition [e.g., steel, fiberglass, etc.]) including date of disposal and facility name, address and contact information.
- Copy of amended *UST or AST Registration and Self-Certification form* (TCEQ-00724 or TCEQ-00659, respectively) as applicable. Originals should be sent to the PST Registration Team (MC-138), TCEQ, P.O. Box 13087, Austin, TX 78711-3087.
- Boring logs and well completion diagrams/well reports, as applicable. Logs should include field screening.
- RCAS/CAPM and/or LOSS signatures are required on page 7 of this form.
- A statement certifying that at the time the data in this report were generated, the laboratory was NELAC-accredited through the Texas Laboratory Accreditation Program for the environmental matrices, analytical methods, and parameters analyze or cite the exception allowed under 30 Texas Administrative Code §25.6.

## SUMMARY

Based on the information obtained during this release determination and by comparing the nondetected results and the detected results to the method quantitation limits (MQLs) and the PST Program action levels, check all that apply:

- No detected or nondetected results for a contaminant exceeded the respective MQL or background.
  - The detected or nondetected results for one or more contaminants exceeded the respective MQLs/background, but did not exceed the PST Program action levels.
  - The detected or nondetected results for one or more contaminant exceeded the PST Program action levels.
  - Tank pit water was present. If present, was water sampled?  Yes  No
  - A groundwater sample representative of the first water-bearing zone was collected and analyzed (i.e., monitoring well installed).
  - A representative groundwater sample was collected and analyzed and one or more contaminants exceeded action levels.
  - This site is a new LPST site.
  - This site is an existing LPST case, there is no new release, and this Release Determination Report is being submitted as the tank removal-from-service documentation.
  - The laboratory was NELAC-accredited through the Texas Laboratory Accreditation Program for the data in this report at the time the data were generated. If not, then cite the applicable 30 TAC §25.6 rule exception(s) that apply to the data.
- 

Is the responsible party financially able to complete the next appropriate step?  YES or  NO If no, and an LPST number is assigned to this case, you may contact the PST-RPR Section at 512/239-2200 to request information on the State-Lead option. Pursuit of this option requires submittal of detailed financial information including recent tax returns and other IRS documentation. Please note that pursuit of this option is only possible once an LPST number has been assigned.

**Answer the following question for all LPST cases subject to 30 TAC 334.** Is this case eligible for reimbursement of necessary corrective actions?  YES or  NO If not, appropriate corrective action in accordance with applicable rules and guidance may continue without specific direction or approval from the PST-RPR Section, however, coordination with PST-RPR is recommended. If the site is eligible for reimbursement, all corrective action activities, with the exception of initial NAPL recovery and emergency abatement activities must be preapproved prior to initiation.

### A. GENERAL INFORMATION

Pre-existing LPST ID No.?  NO or  YES : \_\_\_\_\_ (LPST no[s].) TCEQ Region: 16

Facility ID No.: NA Required unless one of the following applies:

- Check here if tank registration is not required for this site (per 30 TAC §334.7), **and** check one of the following as applicable:
- The tank(s) are partially excluded or exempted from jurisdiction under 30 TAC Chapter 334. Specify type or usage of tank(s): \_\_\_\_\_
  - The tank(s) were permanently removed from the ground before May 8, 1986 (provide date of removal \_\_\_\_\_);
  - The tank(s) remained in the ground but were emptied, cleaned, and filled with inert substance before January 1, 1974 (provide date of activities: \_\_\_\_\_);
  - The tank(s) were out of operation, their existence was unknown (i.e., "ghost tank"), **and** they were permanently removed from service within 60 days of their discovery (provide date of discovery: \_\_\_\_\_ and describe method of discovery: \_\_\_\_\_)

Tank Owner: Ellipse Energy

Tank Owner Mailing Address: 1130 County Road 239

Tank Owner City: Gonzales State: TX Zip: 78629

Tank Owner Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax no.: \_\_\_\_\_

Tank Operator (if different from tank owner): \_\_\_\_\_

Tank Operator Mailing Address: \_\_\_\_\_

Tank Operator City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Tank Operator Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax no.: \_\_\_\_\_

Land Owner (if different from tank owner and operator): \_\_\_\_\_

Land Owner Mailing Address: \_\_\_\_\_

Land Owner City: \_\_\_\_\_ State: TX Zip: \_\_\_\_\_

Land Owner Contact Person: s Phone: \_\_\_\_\_ Fax no.: \_\_\_\_\_

**If site is a pre-existing LPST site with no new release or is a new LPST site, which of these parties will oversee the corrective actions at this site?**  Tank Owner  Tank Operator  Land Owner  Other (not the contractor or consultant):

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: Texas Zip: \_\_\_\_\_ Contact person: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Please note that no matter which party conducts corrective action, the tank owner and the tank operator are jointly responsible for the necessary corrective actions.

Facility Name: Ellipse Energy

Facility Physical Address: 1130 County Road 239

Facility City: Gonzales County: Gonzales County Code (see p. 8): 89



### C. CONFIRMED RELEASE INFORMATION

Complete this section only if a release was confirmed; i.e., contaminant levels exceeded MQLs

Date release confirmed: 6/30/2014 Date release reported to TCEQ: Concurrently Reported to: TCEQ PST Program

Is this the first release from a UST or AST discovered at this site?  YES or  NO

Are there any other contamination or potential impacts to human health from any source other than the tank systems at this site?  
 YES or  NO If yes, indicate type and location of contamination: \_\_\_\_\_

Reported to TCEQ by: \_\_\_\_\_ Representing: \_\_\_\_\_

Method of release discovery:

- |   |  |
|---|--|
| <input type="checkbox"/> Samples collected during tank removal-from-service activities                    | <input type="checkbox"/> Impact to utility line  |
| <input type="checkbox"/> Samples collected during other tank system construction activities               | <input type="checkbox"/> Impact to surface water |
| <input type="checkbox"/> Samples collected during release determination investigation                     | <input type="checkbox"/> Impact to water well    |
| <input checked="" type="checkbox"/> Other: <u>Site assessment associated with real estate transaction</u> |  |

Method of release confirmation: (check all that apply)

- Soil samples  Groundwater samples  Surface water samples  Documentation of presence of NAPL

Source(s) of release (check all that apply):  USTs  ASTs  Piping  Dispenser  Submersible Turbine Pump Area  
 Overfills/spills  Unknown  Other: \_\_\_\_\_

Substance(s) released (check all that apply):  Gasoline  Diesel  Used Oil  Aviation Gasoline  
 Alcohol-blended fuel (Type and percentage of alcohol: \_\_\_\_\_)  
 Jet Fuel (type: \_\_\_\_\_)  Other: (be specific) Biodiesel components  
Amount of product released: \_\_\_\_\_ Chemical Abstract Service registry #: \_\_\_\_\_ (for hazardous substances)

Were any soil samples collected?  YES or  NO (check one) If yes, attach descriptions of sample locations, collection methods and laboratory results.

Type of native soil: (check one)  Clay or silt  Sand, gravel or rock

Were any groundwater confirmation samples collected?  YES or  NO (check one) If yes, attach descriptions of sample locations, collection methods, aquifer name, and laboratory results.

Known Impact(s): (check all that apply)  Soil  GW  Surface Water  Subsurface Utilities - type: \_\_\_\_\_  
 Buildings  Water wells  Other sensitive receptors: \_\_\_\_\_

Was the land owner (if different from the tank owner) notified of the contamination?  YES or  NO (check one) If Yes, attach copy of the letter which provided the notification. If No, documentation that notification was provided must be submitted within 30 days from the date the impact is discovered.

Possibly Threatened: (check all that apply)  GW  Surface Water  Subsurface Utilities - type: \_\_\_\_\_  
 Buildings  Water wells  Other sensitive receptors: \_\_\_\_\_

Was NAPL detected (greater than 0.01 feet)?  YES or  NO (check one) If yes, describe how and where it was detected, the thickness detected, and the recovery actions taken: \_\_\_\_\_  
\_\_\_\_\_

**D. ABATEMENT MEASURES**

Were abatement measures initiated to stop the release or to recover the released substance?  YES or  NO (check one) If yes, describe the abatement and/or recovery measures taken and the dates and duration of the activities: \_\_\_\_\_

Were UST/AST system tank and/or line tightness tests performed?  YES or  NO (check one) If yes, attach test results. Did the tests indicate that all tanks and piping were tight?  YES or  NO If No, specify the portion(s) of the tank system(s) that were found not to be tight: \_\_\_\_\_

Were any repairs conducted on the tank system(s)?  YES or  NO (check one) If yes, describe type(s) and location of repairs: \_\_\_\_\_

Were tightness tests performed after repairs were conducted?  YES or  NO (check one) If yes, attach test results. Did the tests indicate that the repaired items were tight?  YES or  NO If No, specify the portion of the tank system(s) that were found not to be tight: \_\_\_\_\_

**E. FIRE/TCEQ/OTHER OFFICIALS NOTIFIED**

Were any other officials notified?  YES  NO (check one) If Yes, indicate:

<u>Name</u>	<u>Representing</u>	<u>Phone number</u>	<u>Date(s) Notified</u>
<u>Karen Bridges</u>	<u>TCEQ Region 14</u>	<u>361-825-3100</u>	<u>7/22/2014</u>
_____	_____	_____	_____
_____	_____	_____	_____

Were any directives issued by the fire or other officials?  YES or  NO If Yes, describe directives and actions taken in response to the directive: \_\_\_\_\_

**F. WASTE DISPOSITION**

Indicate the status of all wastes and other materials generated:

<u>Type of waste (soil, water, product)</u>	<u>Quantity and Units</u>	<u>Method and location of disposal or treatment</u>
<u>NA</u>	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

### G. REPORT PREPARATION

A Licensed On-Site Supervisor may complete and sign this form when the supervisor is acting in an approved capacity for tank removal-from-service or tank system repair activities.

Licensed On-Site Supervisor: \_\_\_\_\_ ILP Reg. No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Based on the results of the site investigation and the additional information presented herein, I certify that the site investigation activities performed either by me, or under my direct supervision, including subcontracted work, were conducted in accordance with accepted industry standards/practices and further, that all such tasks were conducted in compliance with applicable TCEQ published rules, guidelines and the laws of the State of Texas. I have reviewed the information included within this report, and consider it to be complete, accurate and representative of the conditions discovered during the site investigation. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report, I may be subject to administrative, civil, and/or criminal penalties.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

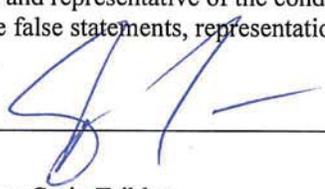
#### **OR**

Project Manager: Craig Tribley PM Reg. No.: 00022 Exp. Date: 5/31/2015

Company: STC Environmental Services, Inc.

Telephone No.: 210-696-6286 FAX No.: 210-696-8761

Based on the results of the site investigation and the additional information presented herein, I certify that the site investigation activities performed either by me, or under my direct supervision, including subcontracted work, were conducted in accordance with accepted industry standards/practices and further, that all such tasks were conducted in compliance with applicable TCEQ published rules, guidelines and the laws of the State of Texas. I have reviewed the information included within this report, and consider it to be complete, accurate and representative of the conditions discovered during the site investigation. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report, I may be subject to administrative, civil, and/or criminal penalties.

PM Signature:  Date: 10/17/2014

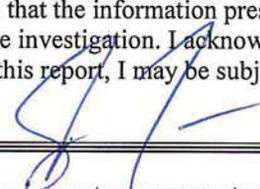
#### **AND**

CAS Representative: Craig Tribley CAS Reg No.: 0010 Exp. Date: 9/27/2014

Company: STC Environmental Services, Inc.

Telephone No.: 210-696-6286 FAX No.: 210-696-8761

By my signature affixed below, I certify that I am the duly authorized representative of the Correction Action Specialist named and that I have personally reviewed the site investigation results and other relevant information presented herein and considered them to be in accordance with accepted standards/practices and in compliance with the applicable TCEQ published rules, guidelines and the laws of the State of Texas. Further, that the information presented herein is considered complete, accurate and representative of the conditions discovered during the site investigation. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report, I may be subject to administrative, civil, and/or criminal penalties.

Signature of CAS Representative:  Date: 10/17/2014

Name of Tank Owner or Operator, or property owner contact: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

By my signature affixed below, I certify that I have reviewed this report for accuracy and completeness of information regarding points of contact and the facility and storage tank system history and status. I acknowledge that if I intentionally or knowingly make false statements, representations, or certifications in this report related to the contact information, and the facility and storage tank system history and status information, I may be subject to administrative, civil, and/or criminal penalties. I attest that I have reviewed this report for accuracy and completeness. I understand that I am responsible for addressing this matter.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**COUNTY CODE LIST**

1	Anderson	38	Childress	75	Fayette	112	Hopkins	149	Live Oak	186	Pecos	223	Terry
2	Andrews	39	Clay	76	Fisher	113	Houston	150	Lamb	187	Polk	224	Throckmorton
3	Angelina	40	Cochran	77	Floyd	114	Howard	151	Loving	188	Potter	225	Titus
4	Aransas	41	Coke	78	Foard	115	Hudspeth	152	Lubbock	189	Presidio	226	Tom Green
5	Archer	42	Coleman	79	Fort Bend	116	Hunt	153	Lynn	190	Rains	227	Travis
6	Armstrong	43	Collin	80	Franklin	117	Hutchinson	154	McCulloch	191	Randall	228	Trinity
7	Atascosa	44	Collingsworth	81	Freestone	118	Irion	155	McLennan	192	Reagan	229	Tyler
8	Austin	45	Colorado	82	Frio	119	Jack	156	McMullen	193	Real	230	Upshur
9	Bailey	46	Comal	83	Gaines	120	Jackson	157	Madison	194	Red River	231	Upton
10	Bandera	47	Comanche	84	Galveston	121	Jasper	158	Marion	195	Reeves	232	Uvalde
11	Bastrop	48	Concho	85	Garza	122	Jeff Davis	159	Martin	196	Refugio	233	Val Verde
12	Baylor	49	Cooke	86	Gillespie	123	Jefferson	160	Mason	197	Roberts	234	Van Zandt
13	Bee	50	Coryell	87	Glasscock	124	Jim Hogg	161	Matagorda	198	Robertson	235	Victoria
14	Bell	51	Cottle	88	Goliad	125	Jim Wells	162	Maverick	199	Rockwell	236	Walker
15	Bexar	52	Crane	89	Gonzales	126	Johnson	163	Medina	200	Runnels	237	Waller
16	Blanco	53	Crockett	90	Gray	127	Jones	164	Menard	201	Rusk	238	Ward
17	Borden	54	Crosby	91	Grayson	128	Karnes	165	Midland	202	Sabine	239	Washington
18	Bosque	55	Culberson	92	Gregg	129	Kaufman	166	Milan	203	San Augustine	240	Webb
19	Bowie	56	Dallam	93	Grimes	130	Kendall	167	Mills	204	San Jacinto	241	Wharton
20	Brazoria	57	Dallas	94	Guadalupe	131	Kenedy	168	Mitchell	205	San Patricio	242	Wheeler
21	Brazos	58	Dawson	95	Hale	132	Kent	169	Montague	206	San Saba	243	Wichita
22	Brewster	59	Deaf Smith	96	Hall	133	Kerr	170	Montgomery	207	Schleicher	244	Wilbarger
23	Briscoe	60	Delta	97	Hamilton	134	Kimble	171	Moore	208	Scurry	245	Willacy
24	Brooks	61	Denton	98	Hansford	135	King	172	Morris	209	Shackelford	246	Williamson
25	Brown	62	DeWitt	99	Hardeman	136	Kinney	173	Motley	210	Shelby	247	Wilson
26	Burleson	63	Dickens	100	Hardin	137	Kleberg	174	Nacogdoches	211	Sherman	248	Winkler
27	Burnet	64	Dimmit	101	Harris	138	Knox	175	Navarro	212	Smith	249	Wise
28	Caldwell	65	Donley	102	Harrison	139	Lamar	176	Newton	213	Somerville	250	Wood
29	Calhoun	66	Duval	103	Hartley	140	Lamb	177	Nolan	214	Starr	251	Yoakum
30	Callahan	67	Eastland	104	Haskell	141	Lampasas	178	Nueces	215	Stephens	252	Young
31	Cameron	68	Ector	105	Hays	142	La Salle	179	Ochiltree	216	Sterling	253	Zapata
32	Camp	69	Edwards	106	Hemphill	143	Lavaca	180	Oldham	217	Stonewall	254	Zavala
33	Carson	70	Ellis	107	Henderson	144	Lee	181	Orange	218	Sutton		
34	Cass	71	El Paso	108	Hidalgo	145	Leon	182	Palo Pinto	219	Swisher		
35	Castro	72	Erath	109	Hill	146	Liberty	183	Panola	220	Tarrant		
36	Chambers	73	Falls	110	Hockley	147	Limestone	184	Parker	221	Taylor		
37	Cherokee	74	Fannin	111	Hood	148	Lipscomb	185	Parmer	222	Terrell		

**APPENDIX E  
ECOLOGICAL CHECKLIST**

Figure : 30 TAC □350.77(b)

### **TIER 1: Exclusion Criteria Checklist**

This exclusion criteria checklist is intended to aid the person and the TNRCC in determining whether or not further ecological evaluation is necessary at an affected property where a response action is being pursued under the Texas Risk Reduction Program (TRRP). Exclusion criteria refer to those conditions at an affected property which preclude the need for a formal ecological risk assessment (ERA) because there are **incomplete or insignificant ecological exposure pathways** due to the nature of the affected property setting and/or the condition of the affected property media. This checklist (and/or a Tier 2 or 3 ERA or the equivalent) must be completed by the person for all affected property subject to the TRRP. The person should be familiar with the affected property but need not be a professional scientist in order to respond, although some questions will likely require contacting a wildlife management agency (i.e., Texas Parks and Wildlife Department or U.S. Fish and Wildlife Service). The checklist is designed for general applicability to all affected property; however, there may be unusual circumstances which require professional judgement in order to determine the need for further ecological evaluation (e.g., cave-dwelling receptors). In these cases, the person is strongly encouraged to contact TNRCC before proceeding.

Besides some preliminary information, the checklist consists of three major parts, **each of which must be completed unless otherwise instructed**. PART I requests affected property identification and background information. PART II contains the actual exclusion criteria and supportive information. PART III is a qualitative summary statement and a certification of the information provided by the person. **Answers should reflect existing conditions and should not consider future remedial actions at the affected property**. Completion of the checklist should lead to a logical conclusion as to whether further evaluation is warranted. Definitions of terms used in the checklist have been provided and users are strongly encouraged to familiarize themselves with these definitions before beginning the checklist.

Name of Facility:

Ellipse Energy

Affected Property Location:

1130 County Road 239  
Gonzales, Texas 78629

Mailing Address:

Attention: Don Lewis



TNRCC Case Tracking #s:

Solid Waste Registration #s:

Voluntary Cleanup Program #:

EPA I.D. #s:

Figure: 30 TAC §350.77(b) continued

### Definitions<sup>1</sup>

**Affected property** - The entire area (i.e., on-site and off-site; including all environmental media) which contains releases of chemicals of concern at concentrations equal to or greater than the assessment level applicable for residential land use and groundwater classification.

**Assessment level** - A critical protective concentration level for a chemical of concern used for affected property assessments where the human health protective concentration level is established under a Tier 1 evaluation as described in §350.75(b) of this title (relating to Tiered Human Health Protective Concentration Level Evaluation), except for the protective concentration level for the soil-to-groundwater exposure pathway which may be established under Tier 1, 2, or 3 as described in §350.75(i)(7) of this title, and ecological protective concentration levels which are developed, when necessary, under Tier 2 and/or 3 in accordance with §350.77(c) and/or (d), respectively, of this title (relating to Ecological Risk Assessment and Development of Ecological Protective Concentration Levels).

**Bedrock** - The solid rock (i.e., consolidated, coherent, and relatively hard naturally formed material that cannot normally be excavated by manual methods alone) that underlies gravel, soil or other surficial material.

**Chemical of concern** - Any chemical that has the potential to adversely affect ecological or human receptors due to its concentration, distribution, and mode of toxicity. Depending on the program area, chemicals of concern may include the following: solid waste, industrial solid waste, municipal solid waste, and hazardous waste as defined in Texas Health and Safety Code, §361.003, as amended; hazardous constituents as listed in 40 Code of Federal Regulations Part 261, Appendix VIII, as amended; constituents on the groundwater monitoring list in 40 Code of Federal Regulations Part 264, Appendix IX, as amended; constituents as listed in 40 CFR Part 258 Appendices I and II, as amended; pollutant as defined in Texas Water Code, §26.001, as amended; hazardous substance as defined in Texas Health and Safety Code, §361.003, as amended, and the Texas Water Code §26.263, as amended; regulated substance as defined in Texas Water Code §26.342, as amended and §334.2 of this title (relating to Definitions), as amended; petroleum product as defined in Texas Water Code §26.342, as amended and §334.122(b)(12) of this title (relating to Definitions for ASTs), as amended; other substances as defined in Texas Water Code §26.039(a), as amended; and daughter products of the aforementioned constituents.

**Community** - An assemblage of plant and animal populations occupying the same habitat in which the various species interact via spatial and trophic relationships (e.g., a desert community or a pond community).

**Complete exposure pathway** - An exposure pathway where a human or ecological receptor is exposed to a chemical of concern via an exposure route (e.g., incidental soil ingestion, inhalation of volatiles and particulates, consumption of prey, etc).

**De minimus** - The description of an area of affected property comprised of one acre or less where the ecological risk is considered to be insignificant because of the small extent of contamination, the absence of protected species, the availability of similar unimpacted habitat nearby, and the lack of adjacent sensitive environmental areas.

**Ecological protective concentration level** - The concentration of a chemical of concern at the point of exposure within an exposure medium (e.g., soil, sediment, groundwater, or surface water) which is determined in accordance with §350.77(c) or (d) of this title (relating to Ecological Risk Assessment and Development of Ecological Protective Concentration Levels) to be protective for ecological receptors. These concentration levels are primarily intended to be protective for more mobile or wide-ranging ecological receptors and, where appropriate, benthic invertebrate communities within the waters in the state. These concentration levels are not intended to be directly protective of receptors with limited mobility or range (e.g., plants, soil invertebrates, and small rodents), particularly

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<sup>1</sup>These definitions were taken from 30 TAC §350.4 and may have both ecological and human health applications. For the purposes of this checklist, it is understood that only the ecological applications are of concern.

Figure: 30 TAC □350.77(b) continued

those residing within active areas of a facility, unless these receptors are threatened/endangered species or unless impacts to these receptors result in disruption of the ecosystem or other unacceptable consequences for the more mobile or wide-ranging receptors (e.g., impacts to an off-site grassland habitat eliminate rodents which causes a desirable owl population to leave the area).

**Ecological risk assessment** - The process that evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors; however, as used in this context, only chemical stressors (i.e., COCs) are evaluated.

**Environmental medium** - A material found in the natural environment such as soil (including non-waste fill materials), groundwater, air, surface water, and sediments, or a mixture of such materials with liquids, sludges, gases, or solids, including hazardous waste which is inseparable by simple mechanical removal processes, and is made up primarily of natural environmental material.

**Exclusion criteria** - Those conditions at an affected property which preclude the need to establish a protective concentration level for an ecological exposure pathway because the exposure pathway between the chemical of concern and the ecological receptors is not complete or is insignificant.

**Exposure medium** - The environmental medium or biologic tissue in which or by which exposure to chemicals of concern by ecological or human receptors occurs.

**Facility** - The installation associated with the affected property where the release of chemicals of concern occurred.

**Functioning cap** - A low permeability layer or other approved cover meeting its design specifications to minimize water infiltration and chemical of concern migration, and prevent ecological or human receptor exposure to chemicals of concern, and whose design requirements are routinely maintained.

**Landscaped area** - An area of ornamental, or introduced, or commercially installed, or manicured vegetation which is routinely maintained.

**Off-site property (off-site)** - All environmental media which is outside of the legal boundaries of the on-site property.

**On-site property (on-site)** - All environmental media within the legal boundaries of a property owned or leased by a person who has filed a self-implementation notice or a response action plan for that property or who has become subject to such action through one of the agency's program areas for that property.

**Physical barrier** - Any structure or system, natural or manmade, that prevents exposure or prevents migration of chemicals of concern to the points of exposure.

**Point of exposure** - The location within an environmental medium where a receptor will be assumed to have a reasonable potential to come into contact with chemicals of concern. The point of exposure may be a discrete point, plane, or an area within or beyond some location.

**Protective concentration level** - The concentration of a chemical of concern which can remain within the source medium and not result in levels which exceed the applicable human health risk-based exposure limit or ecological protective concentration level at the point of exposure for that exposure pathway.

**Release** - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, with the exception of:

- (A) A release that results in an exposure to a person solely within a workplace,

Figure: 30 TAC §350.77(b) continued

concerning a claim that the person may assert against the person's employer;

(B) An emission from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;

(C) A release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. §2011 et seq.), if the release is subject to requirements concerning financial protection established by the Nuclear Regulatory Commission under §170 of that Act;

(D) For the purposes of the environmental response law §104, as amended, or other response action, a release of source, by-product, or special nuclear material from a processing site designated under §102(a)(1) or §302(a) of the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. §7912 and §7942), as amended; and

(E) The normal application of fertilizer.

**Sediment** - Non-suspended particulate material lying below surface waters such as bays, the ocean, rivers, streams, lakes, ponds, or other similar surface water body (including intermittent streams). Dredged sediments which have been removed from below surface water bodies and placed on land shall be considered soils.

**Sensitive environmental areas** - Areas that provide unique and often protected habitat for wildlife species. These areas are typically used during critical life stages such as breeding, hatching, rearing of young, and overwintering. Examples include critical habitat for threatened and endangered species, wilderness areas, parks, and wildlife refuges.

**Source medium** - An environmental medium containing chemicals of concern which must be removed, decontaminated and/or controlled in order to protect human health and the environment. The source medium may be the exposure medium for some exposure pathways.

**Stressor** - Any physical, chemical, or biological entity that can induce an adverse response; however, as used in this context, only chemical entities apply.

**Subsurface soil** - For human health exposure pathways, the portion of the soil zone between the base of surface soil and the top of the groundwater-bearing unit(s). For ecological exposure pathways, the portion of the soil zone between 0.5 feet and 5 feet in depth.

**Surface cover** - A layer of artificially placed utility material (e.g., shell, gravel).

**Surface soil** - For human health exposure pathways, the soil zone extending from ground surface to 15 feet in depth for residential land use and from ground surface to 5 feet in depth for commercial/industrial land use; or to the top of the uppermost groundwater-bearing unit or bedrock, whichever is less in depth. For ecological exposure pathways, the soil zone extending from ground surface to 0.5 feet in depth.

**Surface water** - Any water meeting the definition of surface water in the state as defined in §307.3 of this title (relating to Abbreviations and Definitions), as amended.

Figure: 30 TAC □350.77(b) continued

**PART I. Affected Property Identification and Background Information**

- 1) Provide a description of the specific area of the response action and the nature of the release. Include estimated acreage of the affected property and the facility property, and a description of the type of facility and/or operation associated with the affected property. Also describe the location of the affected property with respect to the facility property boundaries and public roadways.

The site is located at 1130 County Road 239 in Gonzales, Texas. The entire property encompasses approximately 15 acres of land. This property is the site of a former biodiesel plant that has been seized by the Federal Government. Multiple above ground tanks are present at the site however only two (2) of them contain petroleum products. These two tanks contain methanol and each has a capacity of approximately 550 gallons.

Attach available USGS topographic maps and/or aerial or other affected property photographs to this form to depict the affected property and surrounding area. Indicate attachments:

- Topo map                       Aerial photo                       Other

- 2) Identify environmental media known or suspected to contain chemicals of concern (COCs) at the present time. Check all that apply:

<u>Known/Suspected COC Location</u>	<u>Based on sampling data?</u>	
<input checked="" type="checkbox"/> Soil < 5 ft below ground surface	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<input checked="" type="checkbox"/> Soil >5 ft below ground surface	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<input checked="" type="checkbox"/> Groundwater	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Surface Water/Sediments	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Explain (previously submitted information may be referenced): See Subsurface Investigation Report

Figure: 30 TAC §350.77(b) continued

- 3) Provide the information below for the nearest surface water body which has become or has the potential to become impacted from migrating COCs via surface water runoff, air deposition, groundwater seepage, etc. Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:
- a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and
  - b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

The nearest surface water body is on the site feet/miles from the affected property and is named Tinsley Creek. The water body is best described as a:

- freshwater stream:  perennial (has water all year)  
 intermittent (dries up completely for at least 1 week a year)  
 intermittent with perennial pools
- freshwater swamp/marsh/wetland
- saltwater or brackish marsh/swamp/wetland
- reservoir, lake, or pond; approximate surface acres:
- drainage ditch
- tidal stream             bay                             estuary
- other; specify

Is the water body listed as a State classified segment in Appendix C of the current Texas Surface Water Quality Standards; §§307.1 - 307.10?

Yes Segment # \_\_\_\_\_ Use Classification:

No

If the water body is not a State classified segment, identify the first downstream classified segment.

Name: Guadalupe River Below San Marcos River

Segment #: 1803

Use Classification: Aquatic Life Use, Contact Recreation Use, General Use, Fish Consumption Use, Public Water Supply Use

As necessary, provide further description of surface waters in the vicinity of the affected property:

**PART II. Exclusion Criteria and Supportive Information**

**Subpart A. Surface Water/Sediment Exposure**

- 1) Regarding the affected property where a response action is being pursued under the TRRP, have COCs migrated and resulted in a release or imminent threat of release to either surface waters or to their associated sediments via surface water runoff, air deposition, groundwater seepage, etc.? Exclude wastewater treatment facilities and storm water conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:
- a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and

Figure: 30 TAC §350.77(b) continued

- b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

Yes  No

Explain: [There were no releases in excess of Action Levels.](#)

If the answer is Yes to Subpart A above, the affected property does not meet the exclusion criteria. However, complete the remainder of Part II to determine if there is a complete and/or significant soil exposure pathway, then complete PART III - Qualitative Summary and Certification. If the answer is No, go to Subpart B.

**Subpart B. Affected Property Setting**

In answering Yes to the following question, it is understood that the affected property is not attractive to wildlife or livestock, including threatened or endangered species (i.e., the affected property does not serve as valuable habitat, foraging area, or refuge for ecological communities). (May require consultation with wildlife management agencies.)

- 1) Is the affected property wholly contained within contiguous land characterized by: pavement, buildings, landscaped area, functioning cap, roadways, equipment storage area, manufacturing or process area, other surface cover or structure, or otherwise disturbed ground?

Yes  No

Explain:

[The property is a former biodiesel plant.](#)

If the answer to Subpart B above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subparts C and D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart B above is No, go to Subpart C.

**Subpart C. Soil Exposure**

- 1) Are COCs which are in the soil of the affected property solely below the first 5 feet beneath ground surface **or** does the affected property have a physical barrier present to prevent exposure of receptors to COCs in surface soil?

Yes  No

Explain:

If the answer to Subpart C above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subpart D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart C above is No, proceed to Subpart D.

**Subpart D. De Minimus Land Area**

In answering Yes to the question below, it is understood that all of the following conditions apply:

