

AP-110

FACILITY-WIDE
GW MONITORING
REPORT
1 OF 2

APRIL 2016



April 15, 2016

Mr. Carl J. Chavez
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2015 Annual Facility-Wide Groundwater Monitoring Report, HollyFrontier Navajo Refining LLC, Lovington, New Mexico, AP-110.

Dear Mr. Chavez:

Please find enclosed the original and one electronic copy of the *2015 Annual Facility-Wide Groundwater Monitoring Report* (Report) for the HollyFrontier Navajo Refining LLC (HFNR) facility located in Lovington, New Mexico. The Report summarizes the results of groundwater monitoring activities conducted at the refinery under AP-110 during calendar year 2015.

If you should have any questions or comments regarding this Report, please feel free to contact me at (575) 746-5487 or Robert Combs at (575) 746-5382.

Sincerely,

Scott M. Denton
Environmental Manager

cc: Robert Combs, HFNR
Julie Speer, TRC
Bryan Gilbert, TRC
Catriona Smith, TRC

2015 Annual Facility-Wide Groundwater Monitoring Report



**HollyFrontier Navajo Refining LLC
AP-110
Lovington, New Mexico**

April 2016

Prepared for:


HOLLYFRONTIER.
**HollyFrontier Navajo Refining LLC
Artesia, New Mexico**

Prepared by:


**TRC Environmental Corporation
Austin, Texas**

2015 Annual Facility-Wide Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC
AP-110
Lovington, New Mexico

Prepared for:



HollyFrontier Navajo Refining LLC
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Prepared by:



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April 2016

Principal Lead



Technical Lead



EXECUTIVE SUMMARY

This *2015 Annual Facility-Wide Groundwater Monitoring Report* documents groundwater monitoring activities conducted at the HollyFrontier Navajo Refining LLC (Navajo) facility located (refinery) in Lovington, New Mexico during calendar year 2015. The monitoring objectives are to determine groundwater elevations, flow direction, and gradient and obtain dissolved-phase toxic pollutant concentration data.

The groundwater monitoring program consists of semi-annual groundwater gauging of monitoring wells, semi-annual groundwater sampling of monitoring wells, semi-annual quarterly sampling of refinery water supply wells, and annual reporting. Monitoring activities were conducted in general accordance with the Groundwater Discharge Permit (GW-014) issued by the New Mexico Oil Conservation Division (OCD). The OCD rescinded the Groundwater Discharge Permit on February 9, 2012, and the refinery is currently regulated under Abatement Plan (AP)-110). This *2015 Annual Facility-Wide Groundwater Monitoring Report* documents groundwater monitoring activities conducted in 2015 under AP-110, in accordance with Navajo's February 22, 2013, Memorandum to the OCD.

The 2015 groundwater monitoring results indicate that physical and chemical groundwater conditions are generally consistent with historical data. Groundwater flows radially (southeast, south, and north/northwest) towards a cone of depression near the three water supply wells located within the central portion of the refinery. This cone of depression is induced by groundwater pumping from the three on-site water supply wells for refinery process use and non-potable restroom and safety shower use. The presence of select anions (chloride and fluoride), total dissolved solids (TDS), and metals (chromium and manganese) in select wells at concentrations above Water Quality Control Commission (WQCC) Human Health Standards is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery. Navajo installed and maintained oxygen-releasing compound (ORC®) socks in MW-11 to promote enhanced aerobic biodegradation of benzene historically detected in this well.

Navajo will implement groundwater monitoring activities at the refinery in 2016 under the December 2015 *Revised Facility-Wide Groundwater Monitoring Work Plan* that was approved by OCD on March 9, 2016. Navajo will continue to implement interim corrective action of benzene in well MW-11 via installation and maintenance of ORC® socks to promote enhanced aerobic biodegradation.

No reportable releases occurred at the refinery during 2015. Holly Energy Partners – Operating, L.P. (HEP), who owns and operates pipeline and receiving stations at the refinery, discovered soil impacts indicative of a historical release during construction activities at the asphalt

loading rack in November 2015. Both HEP and Navajo notified OCD of the historical release discovery. The investigation of the historical release is ongoing.

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1.0 INTRODUCTION

On behalf of HollyFrontier Navajo Refining LLC (Navajo), TRC Environmental Corporation (TRC) is submitting this *2015 Annual Facility-Wide Groundwater Monitoring Report* to summarize the results of groundwater monitoring activities conducted at the facility located (refinery) in Lovington, New Mexico during calendar year 2015. Previous annual monitoring reports were submitted in accordance with a Groundwater Discharge Permit (GW-014) issued by the New Mexico Oil Conservation Division (OCD). The Groundwater Discharge Permit was due to expire on October 30, 2011, and a renewal draft permit was issued in August 2011 that was to go into effect by November 1, 2011. However, the OCD rescinded the Groundwater Discharge Permit on February 9, 2012. The refinery is currently regulated by the OCD under Abatement Plan (AP)-110. This report is prepared in accordance with Navajo's February 22, 2013, Memorandum to the OCD and OCD's response on February 28, 2013.

1.1 Refinery Description

The refinery is located approximately five miles south of Lovington in Lea County, New Mexico. The facility is operated by Navajo and consists of refining operations and includes Holly Energy Partners – Operating, L.P. (HEP) pipeline and receiving stations. A refinery vicinity map is provided as Figure 1 and a refinery site plan is provided as Figure 2.

2.0 SEMI-ANNUAL GROUNDWATER MONITORING ACTIVITIES

Semi-annual groundwater monitoring activities were conducted at the refinery in February 2015 and August 2015. TRC conducted the first semi-annual groundwater monitoring event from February 23 to February 27, 2015, and on March 9, 2015, and the second semi-annual event from August 24 to August 28, 2015. Groundwater monitoring activities consisted of (1) gauging all refinery monitoring wells (MW-1 through MW-30) and one recovery well (RW-1), and (2) collecting groundwater samples for laboratory analysis from all refinery monitoring wells (MW-1 through MW-30), one recovery well (RW-1), and three water supply wells (WW-North, WW-South, and WW-East). The locations of the monitoring wells, recovery well, and water supply wells are presented in Figure 2.

The following deviations to the sampling and analysis plan presented in the rescinded Groundwater Discharge Permit (GW-014) were documented during the February 2015 monitoring event:

- Wells MW-11, MW-13, MW-14, and MW-27 were sampled using bailing techniques rather than low-flow procedures with a submersible pump due to poor recharge and insufficient water column in the wells. These wells were purged dry with a new disposable bailer and a grab sample was collected for laboratory analysis after the well recharged.
- Well MW-11 could only be sampled for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs); and well MW-14 could only be sampled for VOCs, SVOCs, and dissolved metals due to poor recharge resulting in insufficient water volume.
- Water supply wells WW-North, WW-South, and WW-East were sampled on March 9, 2015 due to weather conditions that caused the access points of all three water wells to freeze during the February sampling event.

The following deviations to the sampling and analysis plan presented in the rescinded Groundwater Discharge Permit (GW-014) were documented during the August 2015 monitoring event:

- Wells MW-11, MW-13, and MW-14 were sampled using bailing techniques rather than low-flow procedures with a submersible pump due to poor recharge and insufficient water column in the wells. These wells were purged dry with a new disposable bailer and a grab sample was collected for laboratory analysis after the well recharged.

- Well MW-11 could only be sampled for VOCs; and wells MW-13 and MW-14 could be sampled for all required analysis except for total mercury due to insufficient water volume.

2.1 Fluid Level Gauging

All refinery monitoring and recovery wells were gauged during the February 2015 and August 2015 semi-annual monitoring events to determine the groundwater elevation, flow direction, and gradient, the presence or absence of phase-separated hydrocarbons (PSH), and apparent PSH thickness. A decontaminated oil-water interface probe was used to measure depth to water and depth to PSH, if present. Depth to water and depth to PSH were measured to the nearest 0.01-foot from the top of the well casing.

2.2 Groundwater Sample Collection

Groundwater samples were collected for laboratory analysis from the following wells during each semi-annual monitoring event: 30 refinery monitoring wells (MW-1 through MW-30), one recovery well (RW-1), and three water supply wells (WW-North, WW-East, and WW-South).

Except as identified as deviations above, each monitoring and recovery well was purged and sampled using low-flow sampling procedures. A stainless-steel, submersible pump (Proactive model SS-Monsoon) with a low-flow, electric controller and dedicated vinyl tubing or disposable, low-density polyethylene (LDPE) tubing was used for purging and sampling the monitoring wells and recovery well. The pump intake was placed at the middle of the water column because the water elevations were within the screened well intervals. A water-quality meter and turbidity meter were used to measure pH, temperature, conductivity, oxidation/reduction potential (ORP), dissolved oxygen, and turbidity at regular intervals during the purging process to obtain geochemical data and to monitor for stabilization of the groundwater. The purging process was considered complete when three of the six water quality parameters achieved stabilization.

The water supply wells were purged and sampled from a sampling point (i.e., tap or spigot) located at or near the well head or pump house and before the water supply is introduced into any storage tank or treatment unit. The wells were purged at the sample point to remove any standing water from the well casing and surface piping. Grab readings of geochemical parameters including pH, temperature, conductivity, ORP, dissolved oxygen, and turbidity were also collected during the purging process.

After the purging process was complete, groundwater samples were collected directly from the dedicated or disposable tubing (for the monitoring and recovery wells) or from the water supply well sampling point into method-specific containers provided by the laboratory. All groundwater samples were submitted to ESC Lab Sciences (ESC) in Mount Juliet, Tennessee under appropriate

chain-of-custody documentation for the following analyses, except as identified as deviations above:

- VOCs by Method 8260B
- SVOCs by Method 8270C
- Dissolved metals (aluminum, arsenic, barium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, silver, uranium, zinc) by Method 6010B and 6020
- Total mercury by Method 7470A
- Anions (chloride, fluoride, nitrate-nitrite, and sulfate) Method 353.2 and Method 9056
- Alkalinity by Method 2320 B
- Specific conductivity by Method 9050A
- pH by Method 9040C
- TDS by Method M2540C

3.0 SEMI-ANNUAL GROUNDWATER MONITORING RESULTS

The results of the semi-annual groundwater monitoring activities conducted in February 2015 and August 2015 are discussed below.

3.1 Fluid Gauging Results

Fluid level gauging was performed on February 23, 2015, and on August 24, 2015. Depth to water measurements and groundwater elevations are presented in Table 1. No PSH was detected in any monitoring or recovery well during either gauging event. Potentiometric groundwater surface maps for the February 2015 and August 2015 gauging events are presented as Figures 3 and 4, respectively. The groundwater elevations measured during both gauging events indicate groundwater flows radially (southeast, south, and north/northwest) towards a cone of depression near the three water supply wells located within the central portion of the refinery. This cone of depression is consistent with previous events and is induced by groundwater pumping from the three on-site water supply wells for refinery process use and non-potable restroom and safety shower use.

Groundwater elevations measured during the February 2015 event decreased an average 0.85 feet from those measured in February 2014. The February 2015 groundwater elevation data indicates groundwater beneath the northwestern portion of the refinery flows southeast towards the cone of depression at a hydraulic gradient ranging from 0.004 to 0.014 feet per foot. South/southeast of the cone of depression, groundwater flows north/northwest at a hydraulic gradient ranging from 0.001 to 0.004 feet per foot.

Groundwater elevations measured during the August 2015 event decreased an average 0.40 feet from those measured in August 2014. The August 2015 groundwater elevation data indicates groundwater northwest of the cone of depression flows southeast at a hydraulic gradient ranging from 0.004 to 0.011 feet per foot. South/southeast of the cone of depression, groundwater flows north/northwest at a hydraulic gradient ranging from 0.001 to 0.005 feet per foot.

A graph of groundwater elevations versus time for wells MW-4 and MW-6 is provided in Appendix A. As shown on the graph, groundwater elevations in wells MW-4 and MW-6 have decreased 7.68 feet and 7.99 feet, respectively, from June 2009 to August 2015. These reductions in groundwater levels are consistent across the refinery and are likely caused by (1) limited recharge due to low rainfall levels and (2) active pumping from three on-site water supply wells and City of Lovington water supply wells located northwest and west (i.e., upgradient) of the refinery.

3.2 Groundwater Sampling Results

Analytical results of organic and inorganic constituents in groundwater samples collected during the 2015 sampling events are presented in Tables 2 and 3, respectively. The analytical data are compared to the New Mexico Water Quality Control Commission (WQCC) Human Health Standards for groundwater and any results that exceeded these standards are shaded gray. Groundwater concentration maps are provided as Figures 5 to 10 for constituents that exceeded WQCC Standards. Laboratory analytical reports are provided in Appendix B. Plots of groundwater concentrations over time for detected constituents are provided in Appendix C.

3.2.1 Organic Constituent Results

Analytical results for VOCs and SVOCs (organic constituents) in groundwater are presented in Table 2. Naphthalene results are included in the VOC (SW8260) and SVOC (SW8270) sections of this report as it is reported by both analytical methods.

3.2.1.1 Volatile Organic Compounds

VOCs were not detected above their respective WQCC Standard in any of the wells sampled in February 2015 and August 2015. VOCs were detected above the laboratory reporting limits in only 2 of the 34 wells sampled during the February 2015 and August 2015 sampling events. VOCs were detected in monitoring well MW-11 and refinery water supply well WW-South as follows:

- Benzene was detected in MW-11 and WW-South at concentrations above the laboratory reporting limit but below the WQCC Standard of 0.010 milligrams per liter (mg/L) during the February 2015 and August 2015 monitoring events. Benzene concentrations have never exceeded the WQCC Standard in WW-South. Benzene has only exceeded the WQCC Standard at the refinery in MW-11. In March 2015, Navajo installed oxygen-releasing compound (ORC®) socks in MW-11 to promote enhanced aerobic biodegradation of benzene historically detected in this well. The ORC® socks have been maintained and replaced in accordance with the manufacturer's recommendations. Benzene concentrations in well MW-11 will continue to be watched closely during future monitoring events.
- Ethylbenzene was detected at a concentration above the laboratory reporting limit but below the WQCC Standard of 0.75 mg/L during the August 2015 monitoring event.
- Xylene was detected at concentrations above the laboratory reporting limit but below the WQCC Standard of 0.62 mg/L during the February 2015 and August 2015 monitoring events.

Reported concentrations of VOCs during the 2015 sampling events were generally consistent with or less than previous sampling results with no notable increases. Concentration maps of VOCs in groundwater for the February 2015 and August 2015 sampling events are not provided because none of the reported concentrations exceeded the WQCC Standards.

3.2.1.2 Semi-Volatile Organic Compounds

SVOCs were not detected above the laboratory reporting limit in any of the 31 wells sampled for SVOCs during the February 2015 and August 2015 monitoring events. Analytical results for SVOCs during the 2015 sampling events were generally consistent with previous sampling results with no notable increases. Concentration maps of SVOCs in groundwater for the February 2015 and August 2015 sampling events are not provided because no concentrations were reported above the WQCC Standards.

3.2.2 Inorganic Constituent Results

Analytical results for anions, TDS, and metals (inorganic constituents) in groundwater are presented in Table 3. A discussion of the inorganic constituent results is provided below.

3.2.2.1 Anions

The February 2015 analytical results indicate that chloride and fluoride are present in groundwater at concentrations above their respective WQCC Standards. Chloride was detected at concentrations above the WQCC Standard of 250 mg/L in 2 of the 32 wells sampled with a maximum detected concentration of 550 mg/L in MW-13. Fluoride was detected at a concentration above the WQCC Standard of 1.6 mg/L in 1 of the 32 wells sampled at a concentration of 2.70 mg/L in MW-24.

The August 2015 analytical results indicate that chloride and fluoride are present at concentrations above their respective WQCC Standards. Chloride was detected at concentrations above the WQCC Standard of 250 mg/L in 5 of the 33 wells sampled with a maximum detected concentration of 431 mg/L in MW-23. Fluoride was detected at concentrations above the WQCC Standard of 1.6 mg/L in 5 of the 33 wells sampled with a maximum detected concentration of 3.07 mg/L in MW-24.

Concentration maps of anions that exceeded WQCC Standards in groundwater for the February 2015 and August 2015 sampling events are provided as Figures 5 and 6, respectively.

Reported anion concentrations for the 2015 sampling events were generally consistent with previous sampling results, with notable increases in the following wells:

- MW-2: Chloride concentrations increased from 122 mg/L in August 2014 to 343 mg/L in August 2015, which is the historical maximum reported concentration at the well. However, the chloride concentrations in this well have historically fluctuated above

and below the WQCC Standard of 250 mg/L. Fluoride concentrations increased from 0.812 mg/L in August 2014 to 1.41 mg/L in August 2015 and sulfate concentrations increased from 82.3 mg/L in August 2014 to 152 mg/L in August 2015, both of which are the historical maximum reported concentrations at the well. However, the fluoride and sulfate concentrations remain below their respective WQCC Standards of 1.6 mg/L and 600 mg/L.

- MW-9: Nitrate-nitrite concentrations increased from 2.35 mg/L in August 2014 to 3.50 mg/L in February 2015 to 4.17 mg/L in August 2015, which is the historical maximum reported concentration at the well. However, the nitrate-nitrite concentrations remain below the WQCC Standard of 10 mg/L
- MW-10: Sulfate concentrations increased from 68.5 mg/L in August 2014 to 102 mg/L in August 2015, which is the historical maximum reported concentration at the well. However, the sulfate concentrations remain below the WQCC Standard of 600 mg/L.
- MW-27: Fluoride concentrations increased from 0.540 mg/L in August 2014 to 2.27 mg/L in August 2015, which is the historical maximum reported concentration and first exceedance of the WQCC Standard of 1.6 mg/L at the well.
- MW-28: Fluoride concentrations increased from 1.65 mg/L in August 2014 to 3.07 mg/L in August 2015, which is the historical maximum reported concentration at the well. Sulfate concentrations increased from 78.2 mg/L in August 2014 to 143 mg/L in August 2015, which is the historical maximum reported concentration at the well. However, the sulfate concentrations remain below the WQCC Standard of 600 mg/L.
- WW-East: Fluoride concentrations increased from 0.914 mg/L in August 2014 to 1.75 mg/L in August 2015, which is the historical maximum reported concentration and first exceedance of the WQCC Standard of 1.6 mg/L at the well. However, as discussed in Section 5.1.6, MS/MSD recoveries for fluoride in August 2015 were greater than laboratory-defined limits and therefore the fluoride result in this sample may be biased high. The fluoride concentration decreased to 1.03 mg/L during the December 2015 quarterly sampling event of the refinery water supply wells.

As discussed in the December 2013 *Refinery Investigation Report*, the presence of anions at concentrations above WQCC Standards in select wells, including fluoride (wells MW-24, MW-27, MW-28, MW-30, and WW-East) and chloride (wells MW-2, MW-8, MW-13, MW-23, and WW-South), is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery.

3.2.2.2 Total Dissolved Solids

During the February 2015 sampling event, TDS was detected at concentrations above the WQCC Standard of 1,000 mg/L in 3 of the 32 wells sampled with a maximum detected concentration of 1,600 mg/L in well MW-13. During the August 2015 sampling event, TDS was detected at concentrations above the WQCC Standard of 1,000 mg/L in 8 of the 33 wells sampled with a maximum detected concentration of 2,190 mg/L in well MW-23. Concentration maps of TDS in groundwater for the February 2015 and August 2015 sampling events are provided as Figures 7 and 8, respectively. Reported TDS concentrations for both 2015 sampling events were generally consistent with previous sampling results, with notable increases in the following wells:

- MW-21: TDS concentrations increased from 938 mg/L in August 2014 to 1,430 mg/L in August 2015, which is the historical maximum reported concentration at the well. The TDS concentration has historically fluctuated above and below the WQCC Standard of 1,000 mg/L in this well.
- MW-29: TDS concentrations increased from 826 mg/L in August 2014 to 1,000 mg/L in February 2015 to 1,220 mg/L in August 2015, which is the historical maximum reported concentration at the well. The TDS concentration has historically fluctuated above and below the WQCC Standard of 1,000 mg/L in this well.

As discussed in the December 2013 *Refinery Investigation Report*, the presence of TDS at concentrations above WQCC Standards in select wells (including wells MW-8, MW-13, MW-21, MW-23, MW-25, MW-26, MW-29, and WW-South) is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery.

3.2.2.3 Metals

The February 2015 analytical results indicate that chromium and manganese were detected at concentrations above their respective WQCC Standards. Chromium was detected at a concentration above its WQCC Standard of 0.05 mg/L in well MW-29 at a concentration of 0.24 mg/L. Manganese was detected at concentrations above the WQCC Standard of 0.2 mg/L in 2 of the 33 wells sampled with a maximum detected concentration of 1.00 mg/L in well MW-6.

The August 2015 analytical results indicate that chromium and manganese were detected at concentrations above their respective WQCC Standards. Chromium was detected at concentrations above the WQCC Standard of 0.05 mg/L in well MW-29 at a concentration of 0.13 mg/L. Manganese was detected at concentrations above the WQCC Standard of 0.2 mg/L in 2 of the 33 wells sampled with a maximum detected concentration of 0.411 mg/L in well MW-6.

Concentration maps of metals that exceeded WQCC Standards in groundwater for the February 2015 and August 2015 sampling events are provided as Figures 9 and 10, respectively. Metal exceedances present in groundwater beneath the wastewater separator, the former salt water

disposal wells, and between Tanks 1214 and 1203, located within the northwestern/central portion of the refinery (i.e., wells MW-6, MW-13, and MW-29), are generally consistent with previous sampling events.

Reported metal concentrations for the 2015 sampling events were generally consistent with previous sampling results, with no notable increases. As discussed in the December 2013 *Refinery Investigation Report*, the presence of metals at concentrations above WQCC Standards in select wells, including chromium (well MW-29) and manganese (well MW-13) is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery.

4.0 WATER WELL SAMPLING AND ANALYTICAL RESULTS

The potential risk associated with use of the water in refinery restrooms and safety showers (the water is not used for drinking or cooking) was evaluated through sampling of the refinery water supply wells WW-North, WW-South, and WW-East on a quarterly basis. The results of the water supply well sampling activities conducted in 2015 are discussed below.

Groundwater samples were collected from refinery water supply wells WW-North, WW-East, and WW-South on a quarterly basis in 2015 in accordance with OCD's May 16, 2014, letter and Navajo's response letter on June 20, 2014. The objective of the quarterly sampling is to evaluate the potential risk associated with use of the water in refinery restrooms and safety showers (the water is not used for drinking or cooking). Water supply well WW-East is the primary source of refinery water supply and water supply wells WW-North and WW-South are used to supplement well WW-East.

Groundwater samples were collected from water supply wells WW-North, WW-South, and WW-East on March 9, 2015, May 19, 2015, August 28, 2015, and December 17, 2015. Groundwater samples collected from the water supply wells were submitted to ESC in Mount Juliet, Tennessee, under appropriate chain-of-custody documentation for the same analyses as the semi-annual monitoring events.

Consistent with historical results, chloride was detected in WW-South at concentrations above the WQCC Standard of 250 mg/L in each of the quarterly sampling events with results ranging from 340 mg/L in March and May 2015 to 426 mg/L in August 2015. Also consistent with historical results, TDS was detected in WW-South at concentrations above the WQCC Standard of 1,000 mg/L in each of the quarterly sampling events with results ranging from 1,100 mg/L in March and May 2015 to 1,440 mg/L in August 2015. In August 2015, fluoride was detected in WW-East at a concentration of 1.75 mg/L, which is above the WQCC Standard of 1.6 mg/L. This is the first and only WQCC exceedance of any analyte in refinery water supply well WW-East. However, as discussed in Section 5.1.6, MS/MSD recoveries for fluoride were greater than laboratory-defined limits and therefore the fluoride result in this sample may be biased high. Fluoride was detected below the WQCC Standard in this well in March 2015, May 2015, and August 2015. Fluoride concentrations will be watched closely in this well during future sampling events. None of the remaining analytes were detected at concentrations above their respective WQCC Standards in any of the samples.

Organic and inorganic analytical results of the quarterly water supply well samples are summarized and compared to WQCC Standards in Tables 2 and 3, respectively. Water from the water supply wells poses no risk associated with continued use in refinery restrooms and safety showers based on these results.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

5.1 Semi-Annual and Quarterly Groundwater Samples

Twenty-nine water samples, three field duplicates, two equipment blanks, and two trip blanks were collected from February 23 to 27, 2015. Thirty-four water samples, four field duplicates, two equipment blanks, and two trip blanks were collected from August 24 to 28, 2015. Three groundwater samples, one field duplicate, and one trip blank were collected on March 9, 2015, May 19, 2015, and December 17, 2015. These samples were submitted to ESC in Mount Juliet, Tennessee for analyses.

TRC Quality Assurance (QA) staff reviewed resultant data on March 14, 2016. Six separate data packages identified as L751256, L753137, L766516, L785444, L786033, and L808328 were reviewed. Data were reviewed for compliance with the analytical protocols used for sample analysis and laboratory-defined control limits. Items reviewed during the data validation process included the following:

- Sample integrity
- Blank analyses
- Spike recoveries
- Duplicate recoveries
- Sample documentation

Data interpretation issues are identified in the following subsections.

5.1.1 Holding Times

- Laboratory notes indicate that all pH analyses were performed outside of holding time. The method states that samples must be analyzed immediately. ESC interprets this to mean within 15 minutes of collection.
- In February 2015, the TDS analysis of MW-28 was analyzed outside the method holding time. The method holding time is 7 days and this sample was analyzed within 9 days of collection.

5.1.2 Surrogates

- In March 2015, surrogate recoveries of base-neutral SVOCs 2-fluorophenol and nitrobenzene in samples NORTH WELL, SOUTH WELL, EAST WELL, and DUP-4 were less than laboratory control limits. The base-neutral SVOC di-n-butyl phthalate was detected in samples NORTH WELL, SOUTH WELL, and EAST WELL and may

be estimated with a low bias. The base-neutral SVOC bis(2-ethylhexyl)phthalate was detected in sample SOUTH WELL and may be estimated with a low bias.

5.1.3 Laboratory Method Blanks

- In February 2015, arsenic, lead, and molybdenum were detected in laboratory method blank WG773842. These compounds were detected in the following associate samples at concentrations within five times the method blank concentration and therefore may include measurement contributions from laboratory sources:
 - Arsenic: MW-5, MW-14, MW-21, and MW-22
 - Lead: MW-6, MW-10, MW-21, and MW-22
 - Molybdenum: MW-2, MW-3, MW-6, MW-10, MW-12R, MW-13, MW-14, MW-15, MW-16, MW-20, MW-21, MW-22, MW-28, MW-30, and DUP-1
- In February 2015, lead was detected in laboratory method blank WG773908. Lead was detected in associate samples MW-1, MW-6, MW-7, MW-17R, MW-18, MW-23, MW-25, RW-1, DUP-3 at concentrations within five times the method blank concentration and therefore may include measurement contributions from laboratory sources.
- In February 2015, chloride was detected in laboratory method blank WG775081. Chloride was not detected in any associated samples at concentrations within five times the method blank concentration; therefore, there are no data interpretation issues associated with detection of potassium in this method blank.
- In February 2015, sodium was detected in laboratory method blank WG773711. Sodium was not detected in any associated samples at concentrations within five times the method blank concentration; therefore, there are no data interpretation issues associated with detection of potassium in this method blank.
- In February 2015, aluminum was detected in laboratory method blank WG773713. Aluminum was detected in associated samples MW-6, MW-8, MW-18, MW-23, MW-24, MW-25, MW-26, and DUP-2 at concentrations within five times the method blank concentration and therefore may include measurement contributions from laboratory sources.
- In August 2015, iron was detected in laboratory method blank WG812705. Iron was detected in associated samples MW-17R, MW-28, DUP-2, WW-South, and WW-East at concentrations within five times the method blank concentration and therefore may include measurement contributions from laboratory sources.

- In August 2015, following compounds were detected in laboratory method blank WG812707: magnesium, potassium, and sodium. Potassium was not detected in any associated samples at concentrations within five times the blank concentration; therefore, there are no data interpretation issues associated with detection of potassium in this method blank. Magnesium and sodium were detected in the following associated samples at concentrations within five times the associated method blank concentrations and therefore may include measurement contributions from laboratory sources:
 - Magnesium: EB-08-28-15-A and EB-08-28-15-B
 - Sodium: EB-08-28-15-A
- In August 2015, arsenic and manganese were detected in laboratory method blank WG812711. Arsenic not detected in any associated samples at concentrations within five times the blank concentration; therefore, there are no data interpretation issues associated with detection of arsenic in this method blank. Manganese was detected in associated samples MW-1, MW-8, MW-15, MW-16, MW-17R, MW-28, MW-29, DUP-2, RW-1, and WW-North at concentrations within five times the method blank concentration and therefore may include measurement contributions from laboratory sources.
- In August, arsenic, boron, chromium, molybdenum, and silver were detected in laboratory method blank WG812713. Chromium, molybdenum, and silver were not detected in any associated samples at concentrations within five times the blank concentration; therefore, there are no data interpretation issues associated with detection of these compounds in this method blank. Arsenic and boron were detected in associated samples at concentrations within five times the method blank concentration and therefore may include measurement contributions from laboratory sources:
 - Arsenic: MW-2, EB-08-28-15-A, and EB-08-28-15-B
 - Boron: EB-08-28-15-A
- In August 2015, methylene chloride was detected in laboratory method blanks WG813608, but it was not detected in any associated samples at concentrations within ten times the blank concentration. Therefore, there are no data interpretation issues associated with this blank detection.
- In August 2015, bis(2-ethylhexyl)phthalate and di-n-butyl phthalate were detected in laboratory method blanks WG812624 and WG813193. These compounds were detected in the following associated samples at concentrations within ten times the

blank concentrations and therefore may include measurement contributions from laboratory sources:

- Bis(2-ethylhexyl)phthalate: MW-1, MW-2, MW-4, MW-6, MW-7, MW-10, MW-13, MW-14, MW-15, MW-16, MW-17R, MW-28, MW-29, MW-30, RW-1, DUP-2, DUP-3, WW-North, WW-East, EB-08-28-15-A, and EB-08-28-15-B
- Di-n-butyl phthalate: MW-1, MW-4, MW-6, MW-7, MW-8, MW-10, MW-13, MW-14, MW-16, MW-17R, MW-28, MW-29, RW-1, DUP-2, DUP-3, WW-North, WW-East, EB-08-28-15-A, and EB-08-28-15-B
- In August 2015, aluminum was detected in laboratory method blank WG812466. Aluminum was detected in associated sample MW-22 at a concentration within five times the method blank concentration and therefore may include measurement contributions from laboratory sources.
- In August 2015, arsenic, chromium, and silver were detected in laboratory method blank WG812713. Silver was not detected in any associated samples; therefore, there are no data interpretation issues associated with detection in this method blank. Arsenic and chromium were detected in the following associated samples at concentrations within five times the method blank concentrations and therefore may include measurement contributions from laboratory sources:
 - Arsenic: MW-5, MW-12R, MW-18, MW -19, MW -20, MW -21, MW -22, MW -23, MW -25, MW -26, MW -27, and DUP-1
 - Chromium: MW-3, MW-5, MW-18, MW -19, MW -20, MW -21, MW -22, MW -23, MW -25, MW -26, MW -27, and DUP-1
- In August 2015, di-n-butyl phthalate, di-n-octyl phthalate, and phenol were detected in laboratory method blank WG812320. These compounds were detected in the following associated samples at concentrations within five times the method blank concentrations and therefore may include measurement contributions from laboratory sources:
 - Di-n-butyl phthalate: MW-5, MW-9, MW-12R, MW -18, MW -19, MW -21, MW-22, MW-23, MW -24, MW -25, MW-26, and MW-27
 - Di-n-octyl phthalate: MW-3, MW-5, MW-9, MW-12R, MW -18, MW -19, MW -21, MW-22, MW-23, MW -24, MW -25, MW-26, and MW-27
 - Phenol: MW-5, MW-12R, MW -18, MW -19, MW-20, MW -21, MW -24, MW -25, and DUP-1

- In December 2015, aluminum, magnesium, potassium, and sodium were detected in laboratory method blank WG837593. Magnesium, potassium, and sodium were not detected in any associated samples at concentrations within five times the blank concentration; therefore, there are no data interpretation issues associated with detection of these compounds in this method blank. Aluminum was detected in associated sample WW-East at a concentration within five times the method blank concentration and therefore may include measurement contributions from laboratory sources.

5.1.4 Equipment Blanks

- In February 2015, the following compounds were detected in equipment blank EB-A-2-27-15-A: chloride, sulfate, nitrate-nitrite, TDS, and calcium. The following compounds were detected in equipment blank EB-2-27-15-B: chloride, sulfate, nitrate-nitrite, TDS, zinc, acetone, and bis(2-ethylhexyl)phthalate.
 - Chloride, sulfate, calcium, TDS, and acetone were not detected in any associated samples at concentrations within five times the blank concentration; therefore, there are no data interpretation issues associated with these blank detections
 - Zinc was detected in samples MW-1, MW-5, MW-6, MW-7, MW-8, MW-10, MW-12R, MW-13, MW-14, MW-15, MW-16, MW-17R, MW-18, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, MW-26, MW-28, MW-29, RW-1, DUP-1, DUP-2, DUP-3, within five times the equipment blank concentrations and may include measurement contributions from inadequate decontamination of field equipment
 - Bis(2-ethylhexyl)phthalate was detected in samples MW-1, MW-2, MW-3, MW-5, MW-6, MW-9, MW-10, MW-13, MW-14, MW-18, MW-19, MW-23, MW-28, MW-29, RW-1, DUP-1, at concentrations within ten times the blank concentration and may include measurement contributions from inadequate decontamination of field equipment
 - Nitrate-nitrite was detected in samples MW-6 and MW-13 within five times the maximum equipment blank concentration and may include measurement contributions from inadequate decontamination of field equipment
- In August 2015, the following compounds were detected in equipment blank EB-08-28-15-A: bis(2-ethylhexyl)phthalate, di-n-butyl phthalate, TDS, chloride, sulfate, arsenic, boron, calcium, iron, magnesium, and sodium. The following compounds were detected in equipment blank EB-08-28-15-B: benzaldehyde, bis(2-ethylhexyl)

phthalate, di-n-butyl phthalate, chloride, sulfate, nitrate-nitrite, arsenic, boron, magnesium, and manganese.

- TDS, chloride, sulfate, nitrate-nitrite, boron, calcium, magnesium, sodium, and benzaldehyde were not detected in any associated samples at concentrations within five times the blank concentration; therefore, there are no data interpretation issues associated with these blank detections.
- Arsenic was detected in samples MW-13, MW-14, MW-17R, MW-18, MW-21, MW-22, MW-23, MW-25, MW-26, and MW-29 at concentrations within five times the blank concentration and may include measurement contributions from inadequate decontamination of field equipment or from laboratory sources as discussed above.
- Iron was detected in samples MW-15, MW-17R, and MW-28 at concentrations within five times the blank concentration and may include measurement contributions from inadequate decontamination of field equipment.
- Manganese was detected in samples MW-1, MW-4, MW-8, MW-12R, MW-17R, MW-18, MW-22, MW-23, MW-25, MW-26, MW-27, MW-29, and MW-30 at concentrations within five times the blank concentration and may include measurement contributions from inadequate decontamination of field equipment.
- Bis(2-ethylhexyl)phthalate was detected in samples MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-9, MW-10, MW-13, MW-14, MW-15, MW-16, MW-17R, MW-28, MW-29, MW-30, and RW-1 in August 2015 at concentrations within ten times the blank concentration and may include measurement contributions from inadequate decontamination of field equipment or from laboratory sources as discussed above.
- Di-n-butyl phthalate was detected in samples MW-1, MW-4, MW-5, MW-6, MW-9, MW-10, MW-13, MW-14, MW-15, MW-16, MW-17R, MW-28, MW-29, MW-30, and RW-1 in August 2015 at concentrations within ten times the blank concentration and may include measurement contributions from inadequate decontamination of field equipment or from laboratory sources as discussed above.

5.1.5 Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

- In February 2015, LCS/LCSD recoveries of chloroethane exceeded laboratory-defined control limits in batch WG773564. Chloroethane was not detected in any of the

associated samples; therefore there are no data interpretation issues associated with these recoveries.

- In February 2015, LCS/LCSD recoveries of 1,1-dichloroethane and 1,2-dichloroethane exceeded laboratory-defined control limits in batch WG773789. 1,1-Dichloroethane and 1,2-dichloroethane were not detected in any of the associated samples; therefore there are no data interpretation issues associated with these recoveries.
- In March 2015, LCS/LCSD recoveries of acetophenone exceeded laboratory-defined control limits in batch WG775448. Acetophenone was not detected in any of the associated samples; therefore there are no data interpretation issues associated with these recoveries.
- In August 2015, the relative percent differences (RPDs) of 2,4-dinitrophenol and 4-nitrophenol exceeded laboratory-defined control limits in batch WG812320. Both of these compounds were not detected in any of the associated samples; therefore there are no data interpretation issues associated with these RPDs.
- In August 2015, LCS/LCSD recoveries for 4-nitroaniline were greater than exceeded laboratory-defined control limits in batch WG812624. 4-Nitroaniline was not detected in any of the associated samples; therefore there are no data interpretation issues associated with these recoveries
- In August 2015, the LCS recovery of styrene in batch WG814013 was greater than laboratory-defined limits. Styrene was not detected in any associated samples; therefore there are no data interpretation issues associated with this recovery.

5.1.6 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- In February 2015, MS/MSD recoveries of select compounds did not meet laboratory-defined limits in the following samples:
 - MW-10:
 - The MS recoveries for 1,2-dichloroethane, 1,2-dichloropropane, 2-butanone, acetone, bromodichloromethane were greater than laboratory-defined limits. These compounds were not detected in this sample, therefore, there are no data interpretation issues associated with the compounds in this sample.
 - MS/MSD recoveries for chloroethane were greater than laboratory-defined limits. Chloroethane was not detected in this sample; therefore, there are no data interpretation issues associated with chloroethane in this sample.

- MW-16:
 - The MS recoveries for 1,2-dichloroethane and acetone were greater than laboratory-defined limits. These compounds were not detected in this sample; therefore, there are no data interpretation issues associated with the compounds in this sample.
 - MS/MSD recoveries for trichloroethene were less than laboratory-defined limits and therefore the trichloroethene result in this sample may be biased low.
- In February 2015, MS/MSD RPDs of select compounds did not meet laboratory-defined limits in the following samples:
 - MW-16: RPD for styrene did not meet control limits. Styrene was not detected in this sample; therefore, no data interpretation issues are identified.
- In March 2015, MS/MSD recoveries of select compounds did not meet laboratory-defined limits in the following samples: fined limits in the following samples:
 - WW-North:
 - MS/MSD recoveries for iron were less than laboratory-defined limits and therefore the iron result in this sample may be biased low.
 - The MS recovery for sodium was less than laboratory-defined limits and therefore the sodium result in this sample may be biased low.
- In August 2015, MS/MSD recoveries of select compounds did not meet laboratory-defined limits in the following samples:
 - WW-East:
 - The MS recovery for alkalinity was less than laboratory-defined limits and therefore the alkalinity result in this sample may be biased low.
 - MS/MSD recoveries for chloride, fluoride, and sulfate were greater than laboratory-defined limits. The fluoride result in this sample may be biased high. The chloride and sulfate spike concentrations were less than four times the sample concentrations; therefore there are no data interpretation issues associated with the chloride or sulfate results in this sample.
 - MS/MSD recoveries for manganese was less than laboratory-defined limits and therefore the manganese result in this sample may be biased low.

- The MSD recovery for copper was greater than laboratory-defined limits and therefore the copper result in this sample may be biased high.
- MS/MSD recoveries for benzaldehyde was less than laboratory-defined limits and therefore the benzaldehyde result in this sample may be biased low.
- WW-South:
 - The MS/MSD recoveries for chloride, fluoride, and sulfate were greater than laboratory-defined limits. The fluoride result in this sample may be biased high. The chloride and sulfate spike concentrations were less than four times the sample concentrations; therefore there are no data interpretation issues associated with these compound results in this sample.
 - MS/MSD recoveries for calcium and MS recoveries for sodium were less than laboratory-defined limits, but the spike concentrations were less than four times the sample concentrations and therefore there are no data interpretation issues associated with these results in this sample.
 - MS/MSD recoveries for 4-nitroaniline were greater than laboratory-defined limits. 4-Nitroaniline was not detected in any associated samples; therefore there are no data interpretation issues associated with this compound in this sample.
- In August 2015, MS/MSD RPDs of select compounds did not meet laboratory-defined limits in the following samples:
 - WW-South: RPDs for 4,6-dinitro-2-methylphenol and 2,4-dinitrophenol did not meet control limits. These compounds were not detected in this sample; therefore, no data interpretation issues are identified.

5.1.7 Laboratory Duplicates

There were no data interpretation issues associated with laboratory duplicate analyses in February 2015, March 2015, May 2015, August 2015, or December 2015.

5.1.8 Field Duplicates

- In February 2015, the RPDs for the following samples did not meet control limits and detected concentrations should be considered estimated:
 - MW-3/DUP-1: bis(2-ethylhexyl) phthalate
 - MW-25/DUP-3: chloride

- WW-South/DUP-4: nitrate-nitrite
- Additional RPD values exceeded 30% and less than 60% in other field duplicate pairs; however, the detections were within five times the laboratory quantitation limit and are therefore not discussed further.
- RPDs for field duplicate pairs collected in May 2015, August 2015, and December 2015 all met control limits.

6.0 2015 RELEASES AND REMEDIATION ACTIVITIES

No reportable releases occurred at the refinery in 2015. On November 11, 2015, during construction activities at the asphalt loading rack, HEP discovered stained soil with a hydrocarbon odor that was indicative of a historical release. HEP and Navajo have both notified OCD of the historical release discovery. The investigation is ongoing.

7.0 CONCLUSIONS

Conclusions based on data collected during groundwater monitoring activities conducted during calendar year 2015 (reporting year 2015) are discussed below.

Groundwater flow directions were consistent with previous groundwater monitoring events. Groundwater elevations decreased an average of 0.85 feet from February 2014 to February 2015 and an average of 0.40 feet from August 2014 to August 2015. PSH was not detected in any monitoring wells. Groundwater elevations have continually decreased from June 2009 to August 2015. These reductions in groundwater are likely caused by limited recharge and active pumping from on-site water supply wells and City of Lovington water supply wells located northwest and west (i.e., upgradient) of the refinery.

No VOCs were reported at concentrations above WQCC Standards in any well during any semi-annual or quarterly sampling events. Navajo installed and maintained ORC® socks in well MW-11 as an interim corrective action for historically elevated benzene concentrations in this well. No SVOCs were reported at concentrations above WQCC Standards in any well during either semi-annual monitoring event.

Anion exceedances of WQCC Standards reported during 2015 included chloride (in wells MW-13 and WW-South) and fluoride (in well MW-24) in February 2015; and chloride (in wells MW-2, MW-8, MW-13, MW-23, and WW-South) and fluoride (in wells MW-24, MW-27, MW-28, MW-30, and WW-East) in August 2015. The presence of select anions at concentrations above WQCC Standards in select wells is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery.

TDS was reported at concentrations above its WQCC Standard in wells MW-13, MW-21, and WW-South during the February 2015 semi-annual monitoring event and in MW-8, MW-13, MW-21, MW-23, MW-25, MW-26, MW-29, and WW-South during the August 2015 semi-annual monitoring event. The presence of TDS at concentrations above WQCC Standards in select wells is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery.

Metal exceedances of WQCC Standards included chromium (in well MW-29) and manganese (in wells MW-6 and MW-13) during the February 2015 and August 2015 semi-annual monitoring events. The presence of select metals at concentrations above WQCC Standards in select wells is due to off-site sources, background concentrations, and/or non-Navajo sources at the refinery.

No constituents exceeded WQCC Standards in wells located along the southeastern refinery boundary (wells MW-5, MW-14, MW-12R, and MW-22), which is the natural downgradient portion of the facility (i.e., if active pumping from the on-site water supply wells

ceased). Groundwater pumping from refinery water supply wells WW-East, WW-North, and WW-South for industrial use causes radial groundwater flow towards a cone of depression at the central portion of the refinery preventing migration of constituents offsite, but also enables onsite migration of constituents from offsite sources (i.e., active oil production and injection wells).

WQCC Standards were not exceeded in any of the quarterly samples collected from refinery water supply wells WW-North, WW-South, and WW-East with the exceptions of chloride and TDS in WW-South during each quarterly event and fluoride in WW-East in August 2015. Based on these results, the water poses no risk associated with continued use in refinery restrooms and safety showers.

8.0 WORK PLANNED FOR 2016

The following summarizes the scope of work planned for 2016 at the refinery:

- Implement semi-annual groundwater monitoring and annual reporting activities in accordance with the sampling and analysis plan presented in the December 2015 *Revised Facility-Wide Groundwater Monitoring Work Plan* (FWGWMWP) that was approved by OCD on March 9, 2016. Navajo will continue to evaluate further reductions of the sampling plan based on historical analytical trends in groundwater.
- Continue to implement quarterly water supply well monitoring in accordance with OCD's May 16, 2014, letter, Navajo's response letter on June 20, 2014, and the December 2015 Revised FWGWMWP.
- Continue to implement interim corrective action of benzene in well MW-11 via installation of ORC® socks to promote enhanced aerobic biodegradation. The ORC® socks will continue to be installed and maintained in accordance with manufacturer recommendations.
- Replace select monitor wells that are screened at depths too shallow for optimal monitoring of the current groundwater elevation, which has continually decreased from June 2009 to August 2015.

Figure 1. Refinery Vicinity Map



HOLLYFRONTIER NAVAJO
REFINING **LLC** REFINERY

Figure 2. Refinery Site Plan

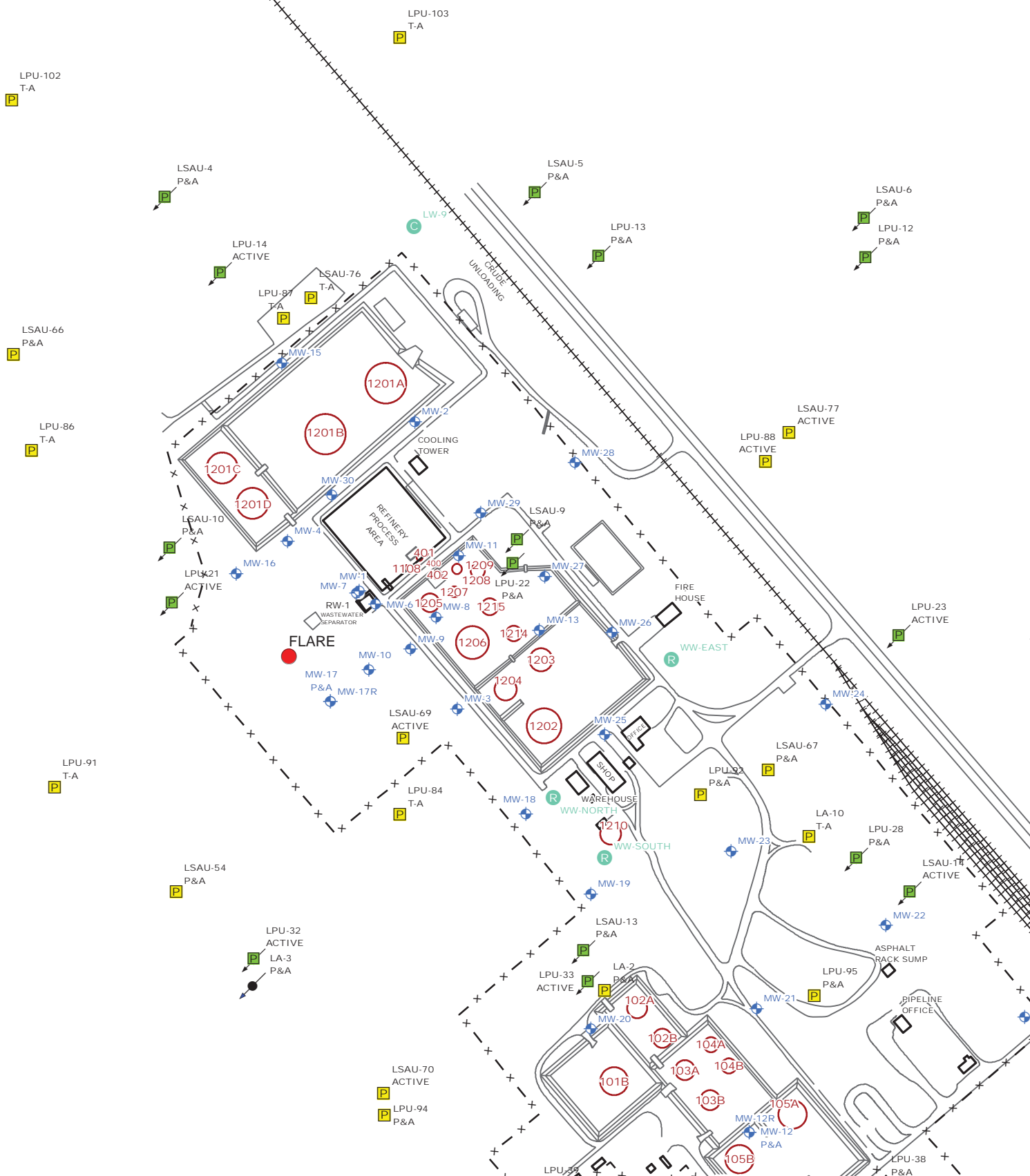


Figure 3. Groundwater Potentiometric Surface Map – February 2015

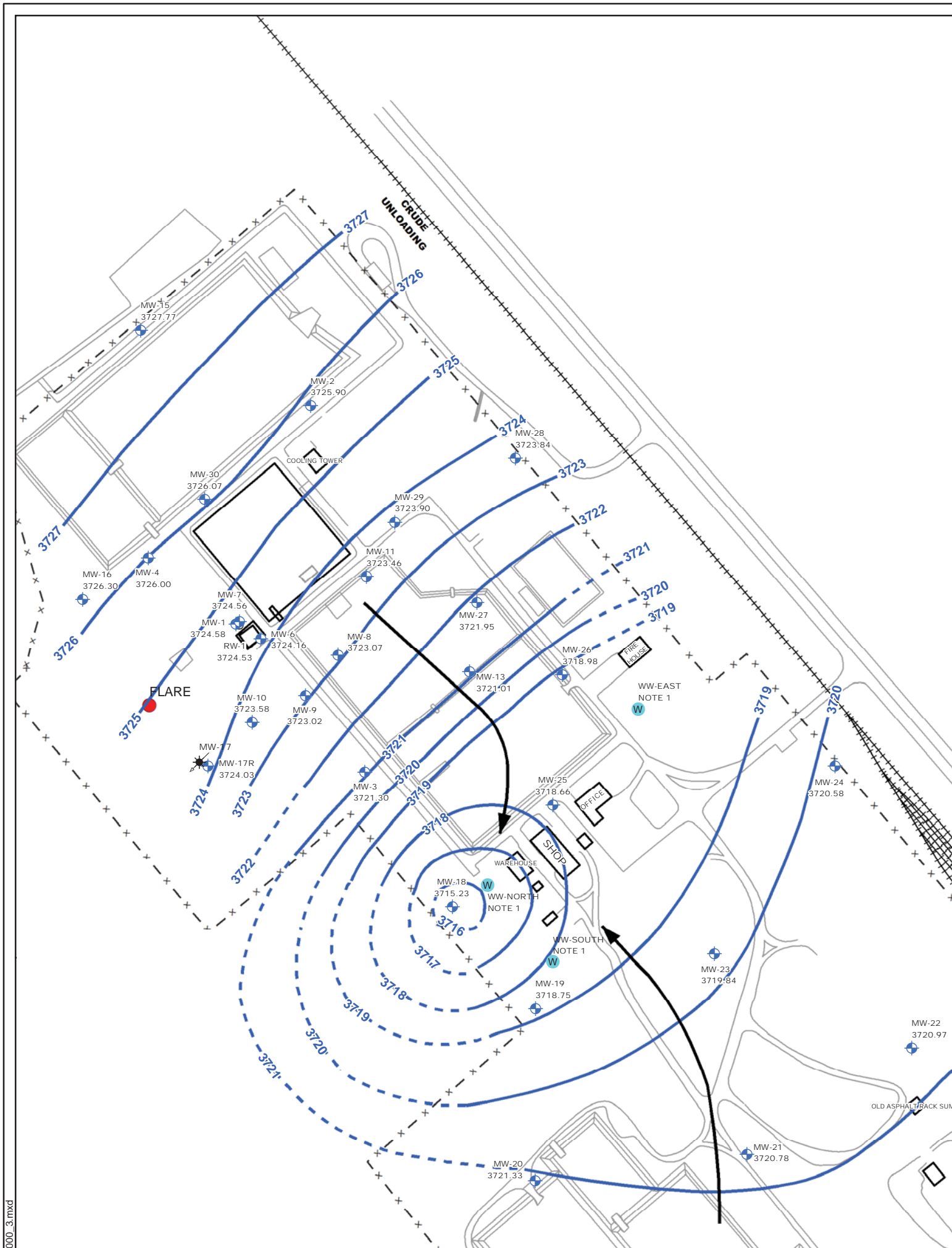


Figure 4. Groundwater Potentiometric Surface Map – August 2015

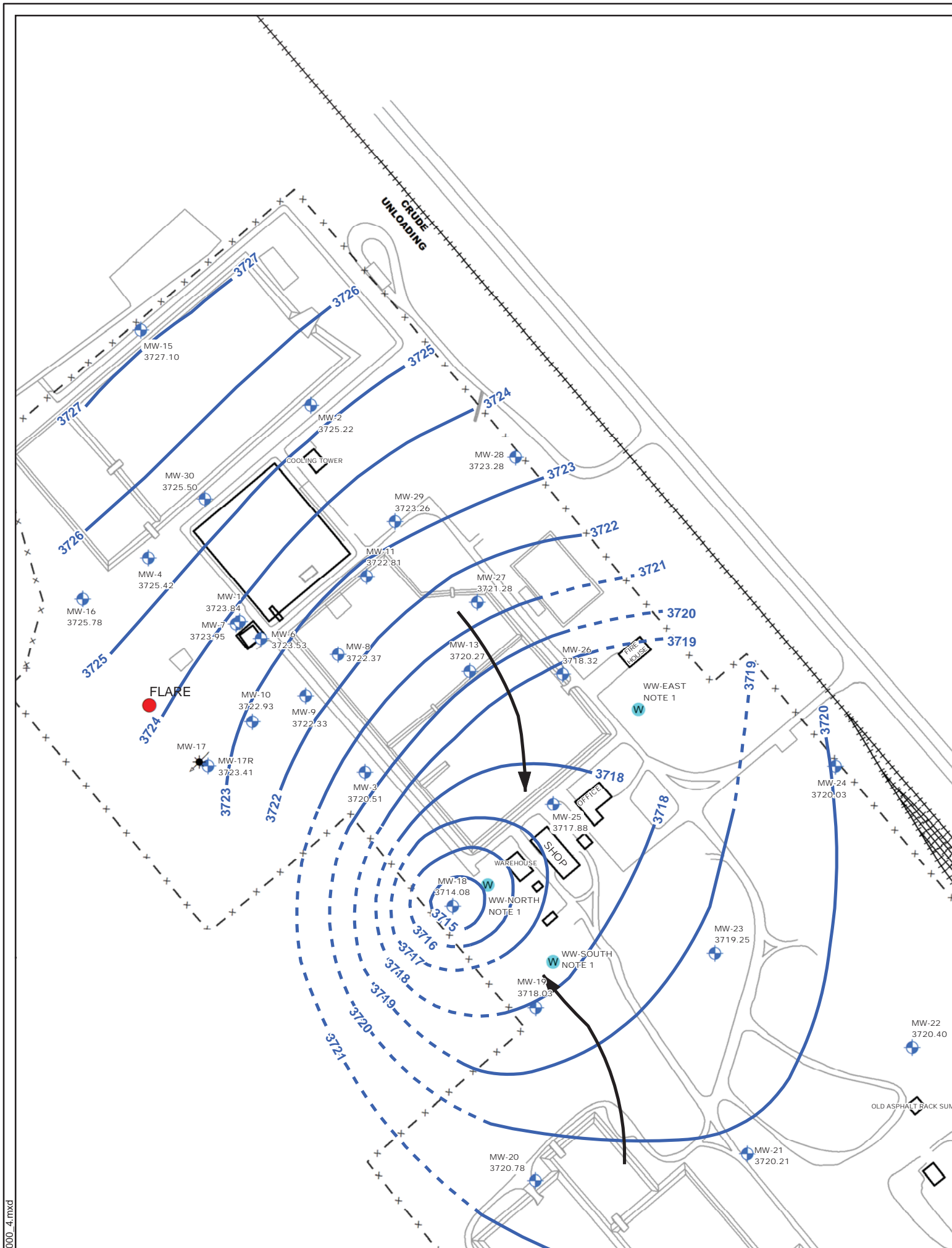


Figure 5. Anions Concentration Map – February 2015

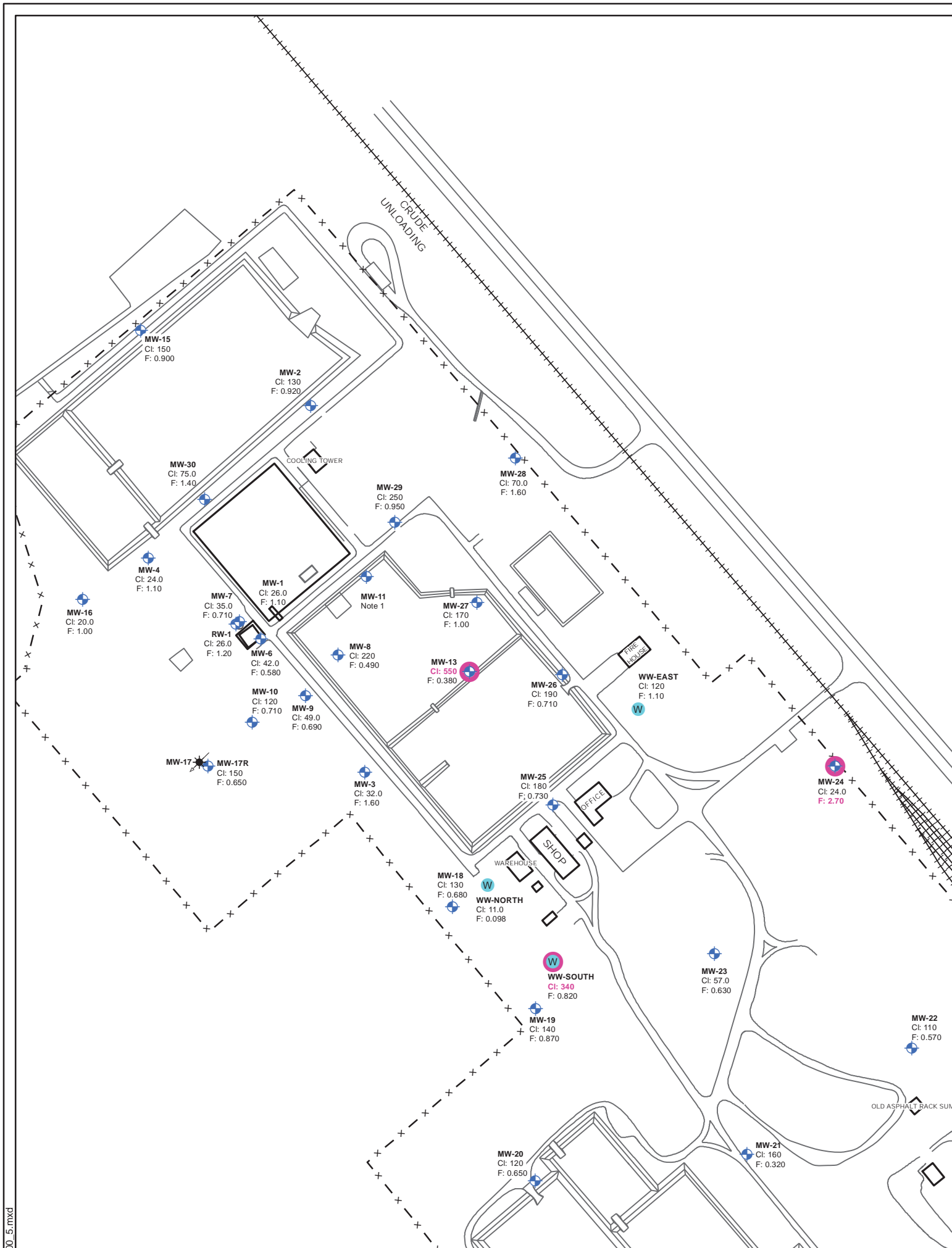


Figure 6. Anions Concentration Map – August 2015

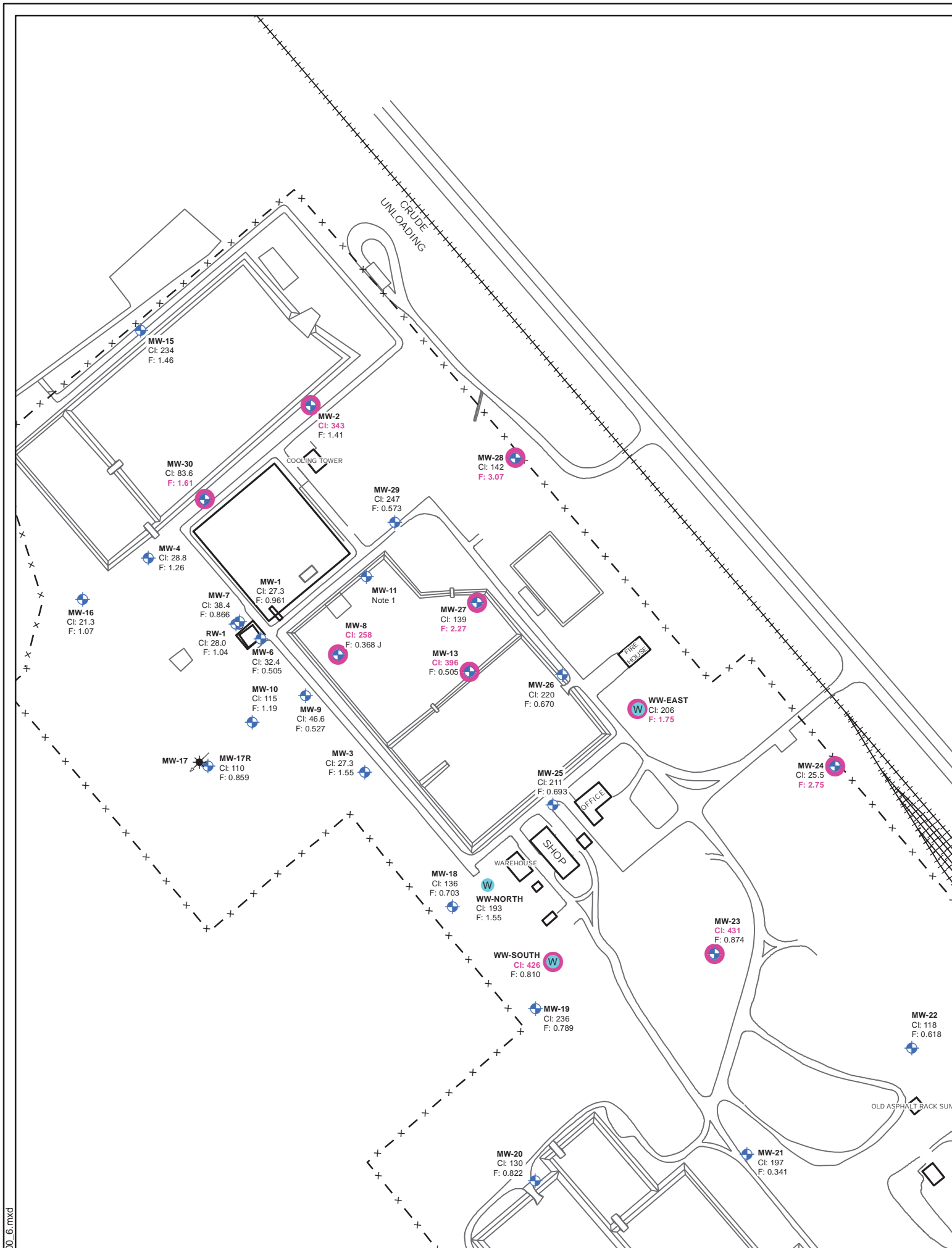


Figure 7. Total Dissolved Solids Concentration Map – February 2015

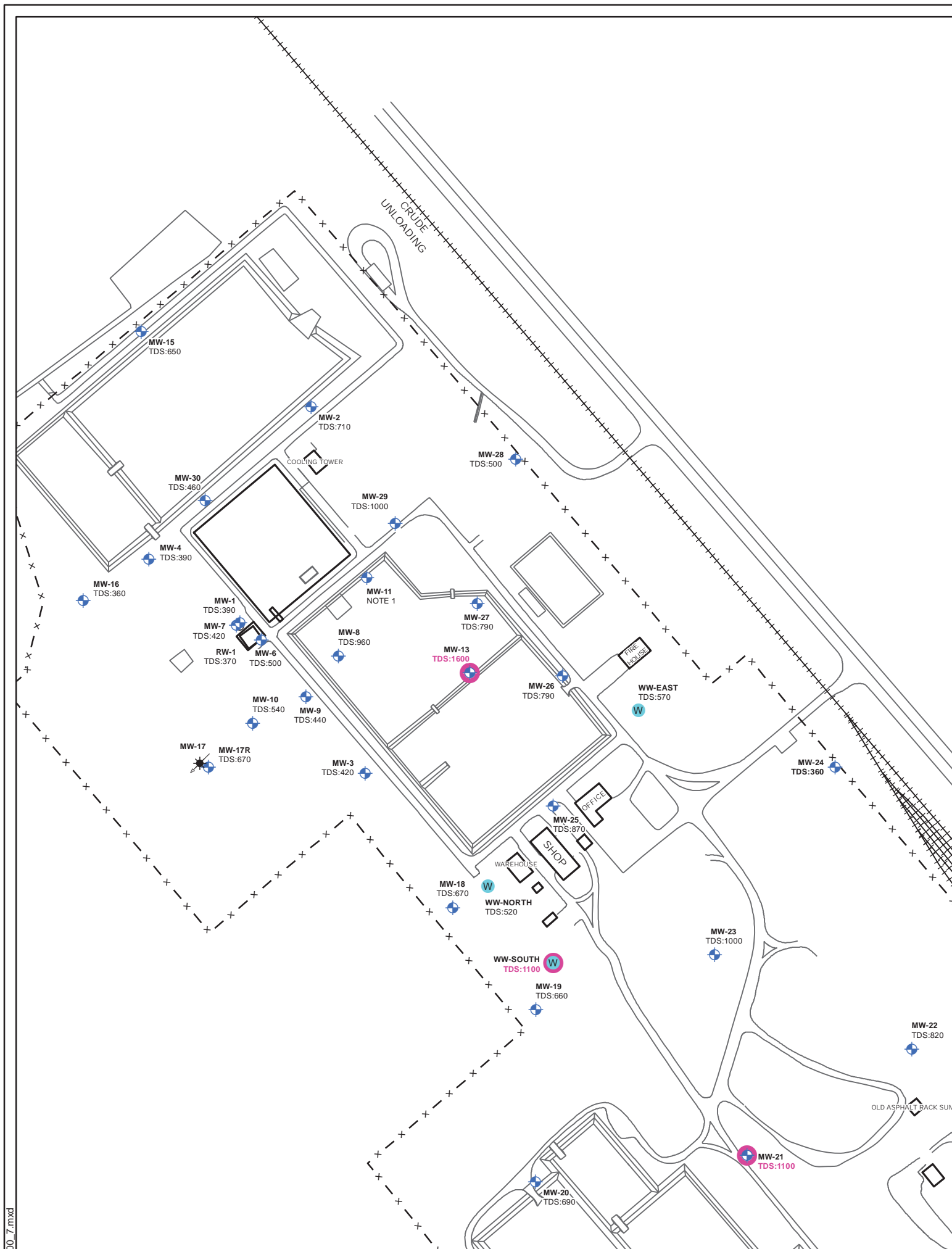


Figure 8. Total Dissolved Solids Concentration Map – August 2015

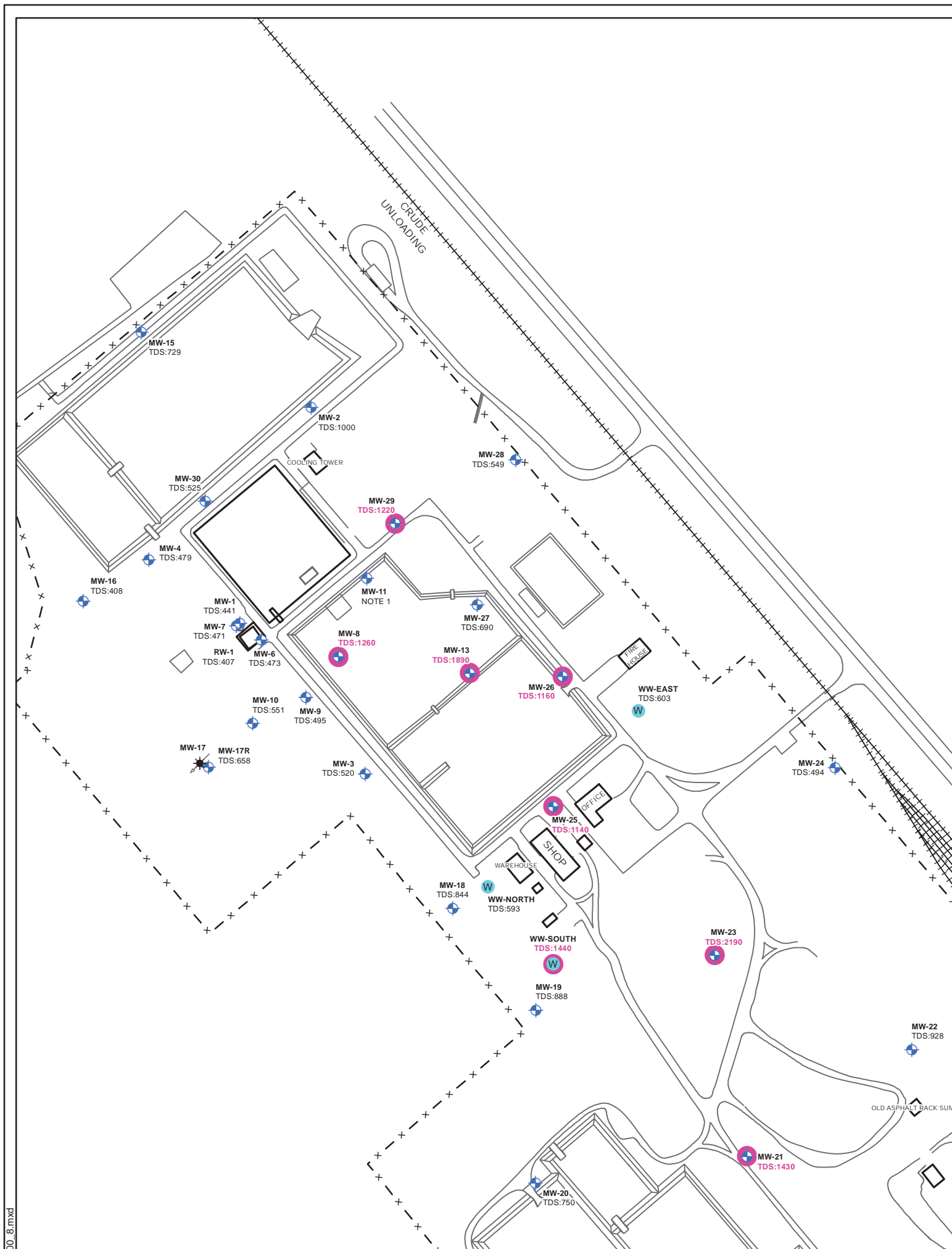


Figure 9. Metals Concentration Map – February 2015

Figure 10. Metals Concentration Map – August 2015

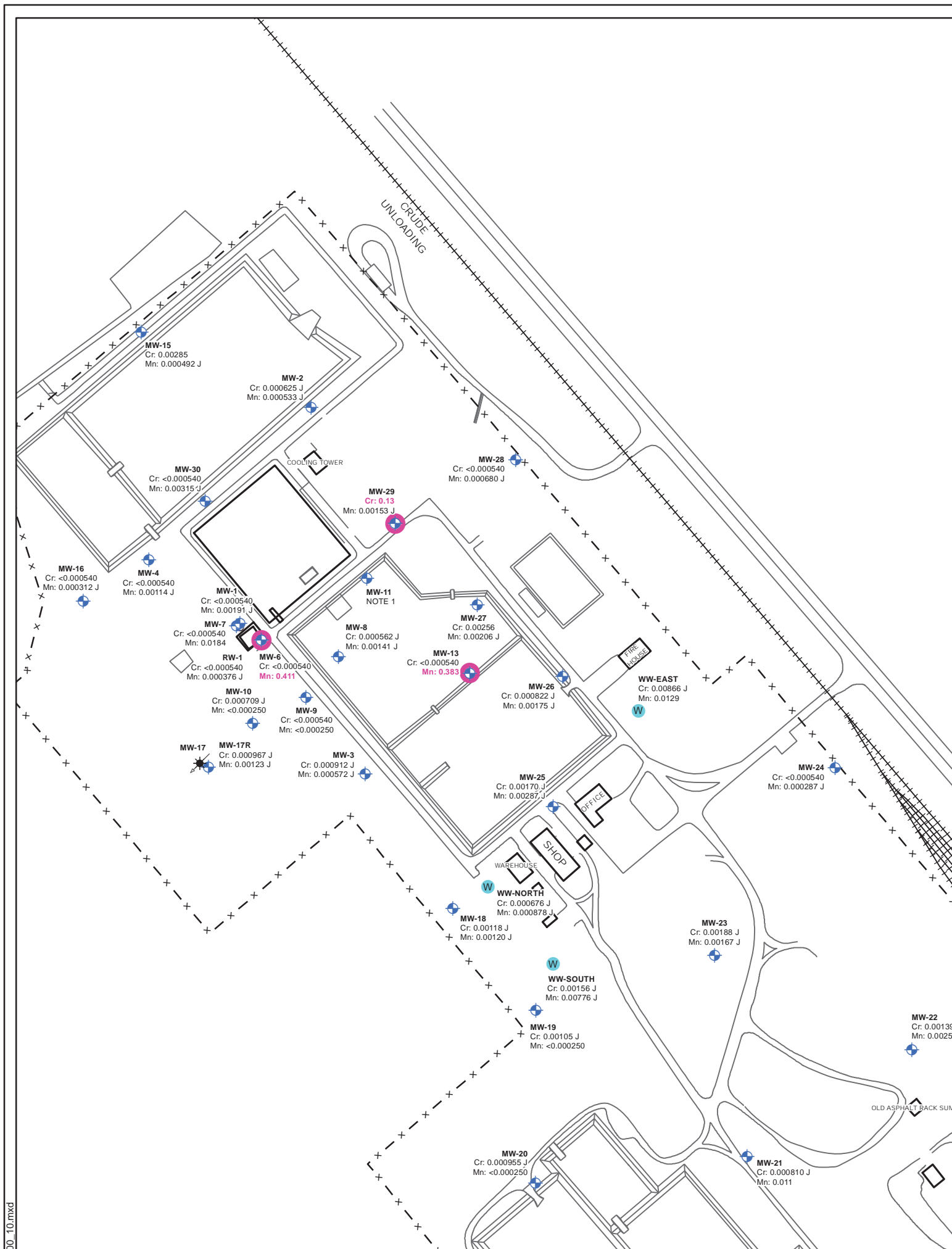


Table 1. Water Elevation Measurements

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-1 ^(1,5)	3,838.40	3,739.19 to 3,709.19	04/30/09	--	106.35	136.10	0.00	106.35	3,732.05	NA
			06/10/09	--	106.49	NM	0.00	106.49	3,731.91	-0.14
			06/19/09	--	106.57	129.12	0.00	106.57	3,731.83	-0.08
			07/02/09	--	106.74	129.13	0.00	106.74	3,731.66	-0.17
			07/24/09	--	106.83	129.11	0.00	106.83	3,731.57	-0.09
			09/24/09	--	107.31	129.12	0.00	107.31	3,731.09	-0.48
			10/27/09	--	107.44	129.10	0.00	107.44	3,730.96	-0.13
			01/13/10	--	107.57	129.11	0.00	107.57	3,730.83	-0.13
			04/01/10	--	107.51	NM	0.00	107.51	3,730.89	0.06
			08/11/10	--	108.09	129.16	0.00	108.09	3,730.31	-0.58
			02/23/11	--	108.12	129.14	0.00	108.12	3,730.28	-0.03
			07/12/11	--	109.00	129.11	0.00	109.00	3,729.40	-0.88
			02/02/12	--	109.68	129.12	0.00	109.68	3,728.72	-0.68
			07/23/12	--	110.88	128.87	0.00	110.88	3,727.52	-1.20
			02/18/13	--	110.51	129.22	0.00	110.51	3,727.89	0.37
			08/19/13	--	111.55	130.60	0.00	111.55	3,726.85	-1.04
			02/24/14	--	112.49	129.35	0.00	112.49	3,725.91	-0.94
MW-2 ^(1,5)	3,837.35	3,739.77 to 3,709.77	06/22/09	--	104.32	126.41	0.00	104.32	3,733.03	NA
			01/13/10	--	105.44	126.68	0.00	105.44	3,731.91	-1.12
			08/11/10	--	105.97	126.42	0.00	105.97	3,731.38	-0.53
			02/23/11	--	105.92	126.46	0.00	105.92	3,731.43	0.05
			07/12/11	--	107.22	126.47	0.00	107.22	3,730.13	-1.30
			01/30/12	--	107.55	126.47	0.00	107.55	3,729.80	-0.33
			07/23/12	--	108.72	126.48	0.00	108.72	3,728.63	-1.17
			02/18/13	--	108.15	126.69	0.00	108.15	3,729.20	0.57
			08/19/13	--	109.43	126.75	0.00	109.43	3,727.92	-1.28
			02/24/14	--	110.59	127.70	0.00	110.59	3,726.76	-1.16
			08/18/14	--	111.25	126.58	0.00	111.25	3,726.10	-0.66
			02/23/15	--	111.45	126.77	0.00	111.45	3,725.90	-0.20
MW-3 ^(1,5)	3,831.65	3,733.73 to 3,703.73	06/16/09	--	102.65	130.45	0.00	102.65	3,729.00	NA
			01/13/10	--	103.29	130.69	0.00	103.29	3,728.36	-0.64
			08/11/10	--	104.82	130.42	0.00	104.82	3,726.83	-1.53
			09/28/10	--	104.70	NM	0.00	104.70	3,726.95	0.12
			02/23/11	--	104.11	130.47	0.00	104.11	3,727.54	0.59
			07/12/11	--	104.89	130.50	0.00	104.89	3,726.76	-0.78
			01/30/12	--	105.22	130.45	0.00	105.22	3,726.43	-0.33
			07/23/12	--	107.59	130.46	0.00	107.59	3,724.06	-2.37
			02/18/13	--	106.21	130.63	0.00	106.21	3,725.44	1.38
			08/19/13	--	108.11	130.88	0.00	108.11	3,723.54	-1.90
			02/24/14	--	108.45	130.75	0.00	108.45	3,723.20	-0.34
			08/18/14	--	110.33	130.71	0.00	110.33	3,721.32	-1.88
MW-4 ^(1,5)	3,839.89	3,741.76 to 3,711.76	06/16/09	--	106.79	128.02	0.00	106.79	3,733.10	NA
			01/13/10	--	107.72	127.94	0.00	107.72	3,732.17	-0.93
			08/11/10	--	108.19	128.03	0.00	108.19	3,731.70	-0.47
			09/28/10	--	108.47	NM	0.00	108.47	3,731.42	-0.28
			02/23/11	--	108.31	127.82	0.00	108.31	3,731.58	0.16
			07/12/11	--	109.27	128.02	0.00	109.27	3,730.62	-0.96
			01/30/12	--	109.91	128.02	0.00	109.91	3,729.98	-0.64
			07/23/12	--	111.00	127.82	0.00	111.00	3,728.89	-1.09
			02/18/13	--	110.70	127.95	0.00	110.70	3,729.19	0.30
			08/19/13	--	111.60	128.01	0.00	111.60	3,728.29	-0.90
			02/24/14	--	112.78	127.80	0.00	112.78	3,727.11	-1.18
			08/18/14	--	113.42	127.63	0.00	113.42	3,726.47	-0.64
			02/23/15	--	113.89	127.68	0.00	113.89	3,726.00	-0.47
MW-5 ^(1,5)	3,839.89	3,741.76 to 3,711.76	08/24/15	--	114.47	127.99	0.00	114.47	3,725.42	-0.58

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-5 ^(1,5)	3,819.15	3,731.13 to 3,701.13	06/16/09	--	90.84	NM	0.00	90.84	3,728.31	NA
			01/13/10	--	92.02	118.30	0.00	92.02	3,727.13	-1.18
			08/11/10	--	92.67	117.93	0.00	92.67	3,726.48	-0.65
			02/23/11	--	92.68	118.00	0.00	92.68	3,726.47	-0.01
			07/12/11	--	93.38	117.97	0.00	93.38	3,725.77	-0.70
			01/31/12	--	94.75	117.75	0.00	94.75	3,724.40	-1.37
			07/23/12	--	95.22	117.92	0.00	95.22	3,723.93	-0.47
			02/18/13	--	95.95	118.85	0.00	95.95	3,723.20	-0.73
			08/19/13	--	96.65	117.90	0.00	96.65	3,722.50	-0.70
			02/24/14	--	97.06	117.45	0.00	97.06	3,722.09	-0.41
			08/18/14	--	97.57	117.22	0.00	97.57	3,721.58	-0.51
			02/23/15	--	98.01	117.19	0.00	98.01	3,721.14	-0.44
			08/24/15	--	98.46	117.22	0.00	98.46	3,720.69	-0.45
MW-6 ^(1,5)	3,838.16	3,738.17 to 3,708.17	06/18/09	--	106.64	129.48	0.00	106.64	3,731.52	NA
			07/24/09	--	106.92	129.71	0.00	106.92	3,731.24	-0.28
			09/24/09	--	107.44	129.74	0.00	107.44	3,730.72	-0.52
			10/27/09	--	107.55	129.73	0.00	107.55	3,730.61	-0.11
			01/13/10	--	107.64	129.71	0.00	107.64	3,730.52	-0.09
			02/02/10	--	107.69	NM	0.00	107.69	3,730.47	-0.05
			04/01/10	--	107.65	NM	0.00	107.65	3,730.51	0.04
			08/11/10	--	108.00	129.71	0.00	108.00	3,730.16	-0.35
			02/23/11	--	108.22	129.72	0.00	108.22	3,729.94	-0.22
			07/12/11	--	109.09	129.74	0.00	109.09	3,729.07	-0.87
			02/02/12	--	109.78	129.74	0.00	109.78	3,728.38	-0.69
			07/23/12	--	111.00	129.47	0.00	111.00	3,727.16	-1.22
			02/18/13	--	110.60	133.32	0.00	110.60	3,727.56	0.40
			08/19/13	--	111.70	130.84	0.00	111.70	3,726.46	-1.10
			02/24/14	--	112.57	130.00	0.00	112.57	3,725.59	-0.87
			08/18/14	--	113.50	129.71	0.00	113.50	3,724.66	-0.93
			02/23/15	--	114.00	129.90	0.00	114.00	3,724.16	-0.50
			08/24/15	--	114.63	129.69	0.00	114.63	3,723.53	-0.63
MW-7 ^(1,5)	3,838.42	3,738.19 to 3,708.19	04/30/09	--	106.37	135.54	0.00	106.37	3,732.05	NA
			06/10/09	--	106.48	NM	0.00	106.48	3,731.94	-0.11
			06/19/09	--	106.68	129.34	0.00	106.68	3,731.74	-0.20
			07/02/09	--	106.75	129.51	0.00	106.75	3,731.67	-0.07
			07/24/09	--	106.84	129.52	0.00	106.84	3,731.58	-0.09
			09/24/09	--	107.33	129.29	0.00	107.33	3,731.09	-0.49
			10/27/09	--	107.46	129.53	0.00	107.46	3,730.96	-0.13
			01/13/10	--	107.60	129.55	0.00	107.60	3,730.82	-0.14
			02/02/10	--	107.61	NM	0.00	107.61	3,730.81	-0.01
			04/01/10	--	107.52	NM	0.00	107.52	3,730.90	0.09
			08/11/10	--	108.10	129.57	0.00	108.10	3,730.32	-0.58
			02/23/11	--	108.13	129.52	0.00	108.13	3,730.29	-0.03
			07/12/11	--	109.01	129.50	0.00	109.01	3,729.41	-0.88
			02/02/12	--	109.71	129.26	0.00	109.71	3,728.71	-0.70
			07/23/12	--	109.88	129.30	0.00	109.88	3,728.54	-0.17
			02/18/13	--	110.52	129.55	0.00	110.52	3,727.90	-0.64
			08/19/13	--	111.57	129.17	0.00	111.57	3,726.85	-1.05
			02/24/14	--	112.50	129.90	0.00	112.50	3,725.92	-0.93
			08/18/14	--	113.40	129.58	0.00	113.40	3,725.02	-0.90
			02/23/15	--	113.86	129.62	0.00	113.86	3,724.56	-0.46
			08/24/15	--	114.47	129.64	0.00	114.47	3,723.95	-0.61
MW-8 ^(2,5)	3,839.98	3,737.44 to 3,707.44	06/18/09	--	109.37	132.30	0.00	109.37	3,730.61	NA
			01/13/10	--	110.47	132.56	0.00	110.47	3,729.51	-1.10
			08/11/10	--	111.05	132.34	0.00	111.05	3,728.93	-0.58
			02/23/11	--	111.07	132.34	0.00	111.07	3,728.91	-0.02
			07/12/11	--	111.98	132.36	0.00	111.98	3,728.00	-0.91
			02/01/12	--	112.91	132.32	0.00	112.91	3,727.07	-0.93
			07/23/12	--	113.94	132.33	0.00	113.94	3,726.04	-1.03
			02/18/13	--	113.27	132.32	0.00	113.27	3,726.71	0.67
			08/19/13	--	114.69	132.39	0.00	114.69	3,725.29	-1.42
			02/24/14	--	115.44	132.60	0.00	115.44	3,724.54	-0.75
			08/19/13	--	116.56	132.16	0.00	116.56	3,723.42	-1.12
			02/23/15	--	116.91	132.10	0.00	116.91	3,723.07	-0.35
			08/24/15	--	117.61	132.20	0.00	117.61	3,722.37	-0.70

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-9 ^(2,5)	3,835.22	3,736.13 to 3,706.13	06/16/09	--	104.58	129.18	0.00	104.58	3,730.64	NA
			01/13/10	--	105.61	129.48	0.00	105.61	3,729.61	-1.03
			08/11/10	--	106.37	129.21	0.00	106.37	3,728.85	-0.76
			02/23/11	--	106.28	129.24	0.00	106.28	3,728.94	0.09
			07/12/11	--	107.17	129.26	0.00	107.17	3,728.05	-0.89
			01/31/12	--	107.38	129.30	0.00	107.38	3,727.84	-0.21
			07/23/12	--	109.20	128.90	0.00	109.20	3,726.02	-1.82
			02/18/13	--	108.47	129.41	0.00	108.47	3,726.75	0.73
			08/19/13	--	109.91	129.38	0.00	109.91	3,725.31	-1.44
			02/24/14	--	110.63	129.35	0.00	110.63	3,724.59	-0.72
			08/18/14	--	111.81	129.01	0.00	111.81	3,723.41	-1.18
			02/23/15	--	112.20	124.08	0.00	112.20	3,723.02	-0.39
			08/24/15	--	112.89	129.06	0.00	112.89	3,722.33	-0.69
MW-10 ^(2,5)	3,833.66	3,735.49 to 3,705.49	06/16/09	--	102.57	129.14	0.00	102.57	3,731.09	NA
			01/13/10	--	103.51	127.42	0.00	103.51	3,730.15	-0.94
			08/11/10	--	104.31	128.47	0.00	104.31	3,729.35	-0.80
			02/23/11	--	104.26	128.54	0.00	104.26	3,729.40	0.05
			07/12/11	--	105.08	128.46	0.00	105.08	3,728.58	-0.82
			01/31/12	--	105.73	128.40	0.00	105.73	3,727.93	-0.65
			07/23/12	--	107.05	128.50	0.00	107.05	3,726.61	-1.32
			02/18/13	--	106.63	128.59	0.00	106.63	3,727.03	0.42
			08/19/13	--	107.78	128.56	0.00	107.78	3,725.88	-1.15
			02/24/14	--	108.53	128.40	0.00	108.53	3,725.13	-0.75
			08/18/14	--	109.62	128.15	0.00	109.62	3,724.04	-1.09
			02/23/15	--	110.08	128.35	0.00	110.08	3,723.58	-0.46
			08/24/15	--	110.73	128.42	0.00	110.73	3,722.93	-0.65
MW-11 ^(3,5)	3,839.56	3,741.13 to 3,721.13	06/20/02	--	99.93	NM	0.00	99.93	3,739.63	NA
			09/17/02	--	100.63	NM	0.00	100.63	3,738.93	-0.70
			12/19/02	--	100.50	NM	0.00	100.50	3,739.06	0.13
			03/28/03	--	99.74	NM	0.00	99.74	3,739.82	0.76
			06/20/03	--	100.76	NM	0.00	100.76	3,738.80	-1.02
			09/15/03	--	101.51	NM	0.00	101.51	3,738.05	-0.75
			04/30/04	--	102.31	116.21	0.00	102.31	3,737.25	-0.80
			02/21/05	--	103.80	NM	0.00	103.80	3,735.76	-1.49
			06/28/05	--	104.33	NM	0.00	104.33	3,735.23	-0.53
			09/30/05	--	104.60	NM	0.00	104.60	3,734.96	-0.27
			12/29/05	--	104.81	NM	0.00	104.81	3,734.75	-0.21
			04/10/06	--	105.12	NM	0.00	105.12	3,734.44	-0.31
			07/06/06	--	105.61	NM	0.00	105.61	3,733.95	-0.49
			01/26/07	--	106.63	NM	0.00	106.63	3,732.93	-1.02
			03/27/07	--	106.80	NM	0.00	106.80	3,732.76	-0.17
			07/13/07	--	106.94	NM	0.00	106.94	3,732.62	-0.14
			09/12/07	--	107.22	NM	0.00	107.22	3,732.34	-0.28
			12/31/07	--	106.74	NM	0.00	106.74	3,732.82	0.48
			03/26/08	--	106.81	117.51	0.00	106.81	3,732.75	-0.07
			06/13/08	--	107.40	NM	0.00	107.40	3,732.16	-0.59
			09/24/08	--	108.76	NM	0.00	108.76	3,730.80	-1.36
			12/29/08	--	108.57	NM	0.00	108.57	3,730.99	0.19
			03/17/09	--	107.91	NM	0.00	107.91	3,731.65	0.66
			06/18/09	--	108.65	117.49	0.00	108.65	3,730.91	-0.74
			01/13/10	--	109.81	117.77	0.00	109.81	3,729.75	-1.16
			08/11/10	--	110.16	117.50	0.00	110.16	3,729.40	-0.35
			02/23/11	--	110.32	117.70	0.00	110.32	3,729.24	-0.16
			07/12/11	--	110.31	117.41	0.00	110.31	3,729.25	0.01
			02/01/12	--	112.02	117.37	0.00	112.02	3,727.54	-1.71
			07/23/12	--	113.10	117.38	0.00	113.10	3,726.46	-1.08
			02/18/13	--	112.53	117.75	0.00	112.53	3,727.03	0.57
			08/19/13	--	113.89	117.64	0.00	113.89	3,725.67	-1.36
			02/24/14	--	114.75	117.90	0.00	114.75	3,724.81	-0.86
			08/18/14	--	115.71	117.60	0.00	115.71	3,723.85	-0.96
			02/23/15	--	116.10	117.81	0.00	116.10	3,723.46	-0.39
			08/24/15	--	116.75	117.86	0.00	116.75	3,722.81	-0.65

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-12 ^(3,5,8)	3,822.73	3,742.29 to 3,722.29	06/20/02	--	84.20	NM	0.00	84.20	3,738.53	NA
			12/21/02	--	85.21	NM	0.00	85.21	3,737.52	-1.01
			03/28/03	--	85.35	NM	0.00	85.35	3,737.38	-0.14
			06/20/03	--	85.51	NM	0.00	85.51	3,737.22	-0.16
			09/15/03	--	86.13	NM	0.00	86.13	3,736.60	-0.62
			11/02/03	--	86.57	NM	0.00	86.57	3,736.16	-0.44
			04/30/04	--	87.40	100.55	0.00	87.40	3,735.33	-0.83
			02/21/05	--	88.42	NM	0.00	88.42	3,734.31	-1.02
			06/28/05	--	88.76	NM	0.00	88.76	3,733.97	-0.34
			09/30/05	--	89.12	NM	0.00	89.12	3,733.61	-0.36
			12/29/05	--	89.31	NM	0.00	89.31	3,733.42	-0.19
			04/10/06	--	89.55	NM	0.00	89.55	3,733.18	-0.24
			07/06/06	--	90.03	NM	0.00	90.03	3,732.70	-0.48
			01/26/07	--	90.06	NM	0.00	90.06	3,732.67	-0.03
			03/27/07	--	90.10	NM	0.00	90.10	3,732.63	-0.04
			07/13/07	--	91.66	NM	0.00	91.66	3,731.07	-1.56
			09/12/07	--	92.01	NM	0.00	92.01	3,730.72	-0.35
			12/31/07	--	92.17	NM	0.00	92.17	3,730.56	-0.16
			03/26/08	--	92.39	100.57	0.00	92.39	3,730.34	-0.22
			06/13/08	--	92.59	NM	0.00	92.59	3,730.14	-0.20
			09/24/08	--	93.21	NM	0.00	93.21	3,729.52	-0.62
			12/29/08	--	93.59	NM	0.00	93.59	3,729.14	-0.38
			03/17/09	--	93.75	NM	0.00	93.75	3,728.98	-0.16
			06/16/09	--	93.83	100.51	0.00	93.83	3,728.90	-0.08
			01/13/10	--	94.78	100.71	0.00	94.78	3,727.95	-0.95
			08/11/10	--	95.67	100.56	0.00	95.67	3,727.06	-0.89
			02/23/11	--	95.85	100.56	0.00	95.85	3,726.88	-0.18
			07/12/11	--	96.58	100.55	0.00	96.58	3,726.15	-0.73
			02/01/12	--	97.57	100.57	0.00	97.57	3,725.16	-0.99
			07/23/12	--	98.10	100.50	0.00	98.10	3,724.63	-0.53
			02/18/13	--	98.95	100.50	0.00	98.95	3,723.78	-0.85
MW-12R ⁽⁸⁾	3,823.29	3,734.95 to 3,714.95	08/19/13	--	100.25	108.34	0.00	100.25	3,723.04	NA
			02/24/14	--	100.92	108.50	0.00	100.92	3,722.37	-0.67
			08/18/14	--	101.33	108.22	0.00	101.33	3,721.96	-0.41
			02/23/15	--	101.73	107.50	0.00	101.73	3,721.56	-0.40
			08/24/15	--	102.25	107.72	0.00	102.25	3,721.04	-0.52
MW-13 ^(4,5)	3,837.06	3,738.75 to 3,718.75	04/30/04	--	101.41	119.82	0.00	101.41	3,735.65	NA
			02/21/05	--	103.09	NM	0.00	103.09	3,733.97	-1.68
			06/28/05	--	103.48	NM	0.00	103.48	3,733.58	-0.39
			09/30/05	--	103.80	NM	0.00	103.80	3,733.26	-0.32
			12/29/05	--	104.41	NM	0.00	104.41	3,732.65	-0.61
			04/10/06	--	104.59	NM	0.00	104.59	3,732.47	-0.18
			07/06/06	--	104.94	NM	0.00	104.94	3,732.12	-0.35
			01/26/07	--	106.41	NM	0.00	106.41	3,730.65	-1.47
			03/27/07	--	106.47	NM	0.00	106.47	3,730.59	-0.06
			07/13/07	--	106.93	NM	0.00	106.93	3,730.13	-0.46
			09/12/07	--	107.19	NM	0.00	107.19	3,729.87	-0.26
			12/31/07	--	106.71	NM	0.00	106.71	3,730.35	0.48
			03/26/08	--	107.02	119.75	0.00	107.02	3,730.04	-0.31
			06/13/08	--	107.19	NM	0.00	107.19	3,729.87	-0.17
			09/24/08	--	108.56	NM	0.00	108.56	3,728.50	-1.37
			12/29/08	--	108.71	NM	0.00	108.71	3,728.35	-0.15
			03/17/09	--	108.36	NM	0.00	108.36	3,728.70	0.35
			06/16/09	--	108.58	108.58	0.00	108.58	3,728.48	-0.22
			01/13/10	--	109.68	119.95	0.00	109.68	3,727.38	-1.10
			08/11/10	--	109.72	119.68	0.00	109.72	3,727.34	-0.04
			02/23/11	--	110.14	119.69	0.00	110.14	3,726.92	-0.42
			07/12/11	--	111.17	119.71	0.00	111.17	3,725.89	-1.03
			02/01/12	--	111.81	119.66	0.00	111.81	3,725.25	-0.64
			07/23/12	--	113.11	119.66	0.00	113.11	3,723.95	-1.30
			02/18/13	--	111.84	119.87	0.00	111.84	3,725.22	1.27
			08/19/13	--	113.81	119.95	0.00	113.81	3,723.25	-1.97
			02/24/14	--	114.47	121.50	0.00	114.47	3,722.59	-0.66
			08/18/14	--	115.89	119.89	0.00	115.89	3,721.17	-1.42
			02/23/15	--	116.05	119.88	0.00	116.05	3,721.01	-0.16
			08/24/15	--	116.79	119.83	0.00	116.79	3,720.27	-0.74

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-14 ^(4,5)	3,823.03	3,737.88 to 3,717.88	04/30/04	--	87.46	NM	0.00	87.46	3,735.57	NA
			02/21/05	--	88.48	NM	0.00	88.48	3,734.55	-1.02
			06/28/05	--	88.80	NM	0.00	88.80	3,734.23	-0.32
			09/30/05	--	89.14	NM	0.00	89.14	3,733.89	-0.34
			12/29/05	--	89.34	NM	0.00	89.34	3,733.69	-0.20
			04/10/06	--	89.63	NM	0.00	89.63	3,733.40	-0.29
			07/06/06	--	90.08	NM	0.00	90.08	3,732.95	-0.45
			01/26/07	--	91.02	NM	0.00	91.02	3,732.01	-0.94
			03/27/07	--	91.18	NM	0.00	91.18	3,731.85	-0.16
			07/13/07	--	91.68	NM	0.00	91.68	3,731.35	-0.50
			09/12/07	--	92.02	NM	0.00	92.02	3,731.01	-0.34
			12/31/07	--	92.25	NM	0.00	92.25	3,730.78	-0.23
			03/26/08	--	92.43	105.08	0.00	92.43	3,730.60	-0.18
			06/13/08	--	92.64	NM	0.00	92.64	3,730.39	-0.21
			12/29/08	--	93.60	NM	0.00	93.60	3,729.43	-0.96
			03/17/09	--	93.84	NM	0.00	93.84	3,729.19	-0.24
			06/16/09	--	93.92	105.04	0.00	93.92	3,729.11	-0.08
			01/13/10	--	94.80	105.30	0.00	94.80	3,728.23	-0.88
			08/11/10	--	95.67	105.04	0.00	95.67	3,727.36	-0.87
			02/23/11	--	95.99	105.05	0.00	95.99	3,727.04	-0.32
			07/12/11	--	96.59	105.06	0.00	96.59	3,726.44	-0.60
			01/31/12	--	97.54	105.05	0.00	97.54	3,725.49	-0.95
			07/23/12	--	98.20	105.05	0.00	98.20	3,724.83	-0.66
			02/18/13	--	99.07	105.38	0.00	99.07	3,723.96	-0.87
			08/19/13	--	99.82	105.30	0.00	99.82	3,723.21	-0.75
			02/24/14	--	100.55	105.60	0.00	100.55	3,722.48	-0.73
			08/18/14	--	100.94	105.35	0.00	100.94	3,722.09	-0.39
			02/23/15	--	101.42	105.35	0.00	101.42	3,721.61	-0.48
			08/24/15	--	101.86	105.37	0.00	101.86	3,721.17	-0.44
MW-15 ^(6,7)	3,840.19	3,738.54 to 3,718.54	08/11/10	--	106.94	121.68	0.00	106.94	3,733.25	NA
			02/23/11	--	107.01	121.67	0.00	107.01	3,733.18	-0.07
			07/12/11	--	108.32	121.62	0.00	108.32	3,731.87	-1.31
			01/30/12	--	108.54	121.62	0.00	108.54	3,731.65	-0.22
			07/23/12	--	109.77	121.58	0.00	109.77	3,730.42	-1.23
			02/18/13	--	109.22	121.82	0.00	109.22	3,730.97	0.55
			08/19/13	--	110.34	121.83	0.00	110.34	3,729.85	-1.12
			02/24/14	--	111.72	122.05	0.00	111.72	3,728.47	-1.38
			08/18/14	--	112.16	121.70	0.00	112.16	3,728.03	-0.44
			02/23/15	--	112.42	121.80	0.00	112.42	3,727.77	-0.26
			08/24/15	--	113.09	121.78	0.00	113.09	3,727.10	-0.67
MW-16 ^(6,7)	3,838.20	3,737.50 to 3,717.50	08/11/10	--	106.18	119.61	0.00	106.18	3,732.02	NA
			02/23/11	--	106.34	119.67	0.00	106.34	3,731.86	-0.16
			07/12/11	--	107.21	119.61	0.00	107.21	3,730.99	-0.87
			01/30/12	--	107.93	119.47	0.00	107.93	3,730.27	-0.72
			07/23/12	--	108.98	119.14	0.00	108.98	3,729.22	-1.05
			02/18/13	--	108.69	119.63	0.00	108.69	3,729.51	0.29
			08/19/13	--	109.51	119.50	0.00	109.51	3,728.69	-0.82
			02/24/14	--	110.73	119.65	0.00	110.73	3,727.47	-1.22
			08/18/14	--	111.35	119.25	0.00	111.35	3,726.85	-0.62
			02/23/15	--	111.90	119.48	0.00	111.90	3,726.30	-0.55
			08/24/15	--	112.42	119.22	0.00	112.42	3,725.78	-0.52

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-17 ^(6,7,8)	3,831.43	3,735.79 to 3,715.79	08/11/10	--	101.65	115.92	0.00	101.65	3,729.78	NA
			02/23/11	--	101.71	115.69	0.00	101.71	3,729.72	-0.06
			07/12/11	--	102.41	115.55	0.00	102.41	3,729.02	-0.70
			01/31/12	WELL DAMAGED - NOT GAUGED						
			07/23/12	WELL DAMAGED - NOT GAUGED						
			02/18/13	WELL DAMAGED - NOT GAUGED						
MW-17R ⁽⁸⁾	3,831.14	3,731.19 to 3,711.19	08/19/13	--	104.79	119.95	0.00	104.79	3,726.35	NA
			02/24/14	--	105.59	119.00	0.00	105.59	3,725.55	-0.80
			08/18/14	--	106.58	117.80	0.00	106.58	3,724.56	-0.99
			02/23/15	--	107.11	117.30	0.00	107.11	3,724.03	-0.53
			08/24/15	--	107.73	117.53	0.00	107.73	3,723.41	-0.62
MW-18 ^(6,7)	3,825.05	3,725.52 to 3,705.52	08/11/10	--	108.54	119.36	0.00	108.54	3,716.51	NA
			09/30/10	--	104.47	NM	0.00	104.47	3,720.58	4.07
			02/23/11	--	100.02	119.38	0.00	100.02	3,725.03	4.45
			07/12/11	--	100.73	119.38	0.00	100.73	3,724.32	-0.71
			01/31/12	--	100.49	119.38	0.00	100.49	3,724.56	0.24
			07/23/12	--	110.18	119.37	0.00	110.18	3,714.87	-9.69
			02/18/13	--	102.51	119.59	0.00	102.51	3,722.54	7.67
			08/19/13	--	109.79	119.68	0.00	109.79	3,715.26	-7.28
			02/24/14	--	105.20	119.85	0.00	105.20	3,719.85	4.59
			08/18/14	--	115.51	119.67	0.00	115.51	3,709.54	-10.31
			02/23/15	--	109.82	119.60	0.00	109.82	3,715.23	5.69
			08/24/15	--	110.97	119.55	0.00	110.97	3,714.08	-1.15
MW-19 ^(6,7)	3,823.97	3,731.48 to 3,711.48	08/11/10	--	102.35	113.60	0.00	102.35	3,721.62	NA
			09/30/10	--	98.70	NM	0.00	98.70	3,725.27	3.65
			02/23/11	--	98.32	113.57	0.00	98.32	3,725.65	0.38
			07/12/11	--	101.87	113.56	0.00	101.87	3,722.10	-3.55
			01/31/12	--	100.92	113.54	0.00	100.92	3,723.05	0.95
			07/23/12	--	100.98	113.56	0.00	100.98	3,722.99	-0.06
			02/18/13	--	103.45	113.76	0.00	103.45	3,720.52	-2.47
			08/19/13	--	104.87	113.81	0.00	104.87	3,719.10	-1.42
			02/24/14	--	105.76	114.00	0.00	105.76	3,718.21	-0.89
			08/18/14	--	104.60	113.79	0.00	104.60	3,719.37	1.16
			02/23/15	--	105.22	113.72	0.00	105.22	3,718.75	-0.62
			08/24/15	--	105.94	113.71	0.00	105.94	3,718.03	-0.72
MW-20 ^(6,7)	3,824.58	3,733.03 to 3,713.03	08/11/10	--	97.75	111.82	0.00	97.75	3,726.83	NA
			02/23/11	--	97.42	111.82	0.00	97.42	3,727.16	0.33
			07/12/11	--	98.50	111.74	0.00	98.50	3,726.08	-1.08
			01/31/12	--	99.07	111.74	0.00	99.07	3,725.51	-0.57
			07/23/12	--	99.75	111.75	0.00	99.75	3,724.83	-0.68
			02/18/13	--	100.50	111.78	0.00	100.50	3,724.08	-0.75
			08/19/13	--	101.60	111.98	0.00	101.60	3,722.98	-1.10
			02/24/14	--	102.37	112.15	0.00	102.37	3,722.21	-0.77
			08/18/14	--	102.81	111.87	0.00	102.81	3,721.77	-0.44
			02/23/15	--	103.25	111.82	0.00	103.25	3,721.33	-0.44
			08/24/15	--	103.80	112.89	0.00	103.80	3,720.78	-0.55
MW-21 ^(6,7)	3,820.26	3,731.59 to 3,711.59	08/11/10	--	94.06	108.31	0.00	94.06	3,726.20	NA
			02/23/11	--	93.84	108.27	0.00	93.84	3,726.42	0.22
			07/12/11	--	94.85	108.23	0.00	94.85	3,725.41	-1.01
			01/31/12	--	95.72	108.18	0.00	95.72	3,724.54	-0.87
			07/23/12	--	96.22	108.24	0.00	96.22	3,724.04	-0.50
			02/18/13	--	96.92	108.48	0.00	96.92	3,723.34	-0.70
			08/19/13	--	98.04	108.52	0.00	98.04	3,722.22	-1.12
			02/24/14	--	98.65	108.55	0.00	98.65	3,721.61	-0.61
			08/18/14	--	99.07	108.32	0.00	99.07	3,721.19	-0.42
			02/23/15	--	99.48	108.19	0.00	99.48	3,720.78	-0.41
			08/24/15	--	100.05	108.32	0.00	100.05	3,720.21	-0.57

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-22 ^(6,7)	3,821.82	3,731.2 to 3,711.27	08/11/10	--	95.62	110.80	0.00	95.62	3,726.20	NA
			02/23/11	--	95.36	110.78	0.00	95.36	3,726.46	0.26
			07/12/11	--	96.26	110.74	0.00	96.26	3,725.56	-0.90
			01/31/12	--	97.56	110.72	0.00	97.56	3,724.26	-1.30
			07/23/12	--	97.90	110.70	0.00	97.90	3,723.92	-0.34
			02/18/13	--	98.45	110.92	0.00	98.45	3,723.37	-0.55
			08/19/13	--	99.54	110.85	0.00	99.54	3,722.28	-1.09
			02/24/14	--	99.97	111.00	0.00	99.97	3,721.85	-0.43
			08/18/14	--	100.52	110.26	0.00	100.52	3,721.30	-0.55
			02/23/15	--	100.85	109.10	0.00	100.85	3,720.97	-0.33
			08/24/15	--	101.42	109.05	0.00	101.42	3,720.40	-0.57
MW-23 ^(6,7)	3,825.58	3,730.91 to 3,710.91	08/11/10	--	100.49	115.10	0.00	100.49	3,725.09	NA
			02/23/11	--	99.80	115.12	0.00	99.80	3,725.78	0.69
			07/12/11	--	101.29	115.10	0.00	101.29	3,724.29	-1.49
			02/01/12	--	102.04	115.07	0.00	102.04	3,723.54	-0.75
			07/23/12	--	102.39	114.98	0.00	102.39	3,723.19	-0.35
			02/18/13	--	102.69	115.25	0.00	102.69	3,722.89	-0.30
			08/19/13	--	104.23	115.00	0.00	104.23	3,721.35	-1.54
			02/24/14	--	104.93	115.35	0.00	104.93	3,720.65	-0.70
			08/18/14	--	105.36	119.14	0.00	105.36	3,720.22	-0.43
			02/23/15	--	105.74	114.85	0.00	105.74	3,719.84	-0.38
			08/24/15	--	106.33	114.84	0.00	106.33	3,719.25	-0.59
MW-24 ^(6,7)	3,830.50	3,731.31 to 3,711.31	08/11/10	--	104.04	118.14	0.00	104.04	3,726.46	NA
			02/23/11	--	104.26	118.09	0.00	104.26	3,726.24	-0.22
			07/12/11	--	105.29	118.04	0.00	105.29	3,725.21	-1.03
			02/01/12	--	106.65	119.10	0.00	106.65	3,723.85	-1.36
			07/23/12	--	106.96	118.04	0.00	106.96	3,723.54	-0.31
			02/18/13	--	106.77	118.35	0.00	106.77	3,723.73	0.19
			08/19/13	--	108.30	118.21	0.00	108.30	3,722.20	-1.53
			02/24/14	--	108.66	118.45	0.00	108.66	3,721.84	-0.36
			08/18/14	--	109.61	118.91	0.00	109.61	3,720.89	-0.95
			02/23/15	--	109.92	118.12	0.00	109.92	3,720.58	-0.31
			08/24/15	--	110.47	118.11	0.00	110.47	3,720.03	-0.55
MW-25 ^(6,7)	3,830.77	3,729.00 to 3,709.00	08/11/10	--	106.46	121.66	0.00	106.46	3,724.31	NA
			02/23/11	--	105.72	121.60	0.00	105.72	3,725.05	0.74
			07/12/11	--	107.24	121.49	0.00	107.24	3,723.53	-1.52
			02/01/12	--	108.53	121.42	0.00	108.53	3,722.24	-1.29
			07/23/12	--	109.13	121.47	0.00	109.13	3,721.64	-0.60
			02/18/13	--	107.65	121.45	0.00	107.65	3,723.12	1.48
			08/19/13	--	110.15	121.49	0.00	110.15	3,720.62	-2.50
			02/24/14	--	110.62	121.60	0.00	110.62	3,720.15	-0.47
			08/18/14	--	112.14	121.46	0.00	112.14	3,718.63	-1.52
			02/23/15	--	112.11	121.71	0.00	112.11	3,718.66	0.03
			08/24/15	--	112.89	121.23	0.00	112.89	3,717.88	-0.78
MW-26 ^(6,7)	3,833.18	3,729.89 to 3,709.89	08/11/10	--	106.22	121.33	0.00	106.22	3,726.96	NA
			02/23/11	--	108.44	121.31	0.00	108.44	3,724.74	-2.22
			07/12/11	--	109.58	121.26	0.00	109.58	3,723.60	-1.14
			02/01/12	--	110.38	121.21	0.00	110.38	3,722.80	-0.80
			07/23/12	--	111.28	121.24	0.00	111.28	3,721.90	-0.90
			02/18/13	--	109.00	121.43	0.00	109.00	3,724.18	2.28
			08/19/13	--	111.46	121.43	0.00	111.46	3,721.72	-2.46
			02/24/14	--	112.28	122.30	0.00	112.28	3,720.90	-0.82
			08/18/14	--	113.98	121.31	0.00	113.98	3,719.20	-1.70
			02/23/15	--	114.20	121.20	0.00	114.20	3,718.98	-0.22
			08/24/15	--	114.86	121.15	0.00	114.86	3,718.32	-0.66

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Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
MW-27 ^(6,7)	3,837.27	3,733.03 to 3,713.03	08/11/10	--	109.00	124.07	0.00	109.00	3,728.27	NA
			02/23/11	--	109.58	123.96	0.00	109.58	3,727.69	-0.58
			07/12/11	--	110.59	124.00	0.00	110.59	3,726.68	-1.01
			02/01/12	--	111.37	123.97	0.00	111.37	3,725.90	-0.78
			07/23/12	--	112.32	123.78	0.00	112.32	3,724.95	-0.95
			02/18/13	--	111.19	123.89	0.00	111.19	3,726.08	1.13
			08/19/13	--	113.06	123.60	0.00	113.06	3,724.21	-1.87
			02/24/14	--	113.81	122.60	0.00	113.81	3,723.46	-0.75
			08/18/14	--	114.96	123.68	0.00	114.96	3,722.31	-1.15
			02/23/15	--	115.32	120.95	0.00	115.32	3,721.95	-0.36
			08/24/15	--	115.99	122.37	0.00	115.99	3,721.28	-0.67
MW-28 ^(6,7)	3,833.44	3,733.73 to 3,713.73	08/11/10	--	103.72	118.42	0.00	103.72	3,729.72	NA
			02/23/11	--	104.03	118.42	0.00	104.03	3,729.41	-0.31
			07/12/11	--	105.07	118.35	0.00	105.07	3,728.37	-1.04
			01/30/12	--	105.84	118.38	0.00	105.84	3,727.60	-0.77
			07/23/12	--	106.65	118.31	0.00	106.65	3,726.79	-0.81
			02/18/13	--	106.17	118.47	0.00	106.17	3,727.27	0.48
			08/19/13	--	107.53	118.50	0.00	107.53	3,725.91	-1.36
			02/24/14	--	108.39	118.70	0.00	108.39	3,725.05	-0.86
			08/18/14	--	109.29	118.30	0.00	109.29	3,724.15	-0.90
			02/23/15	--	109.60	118.47	0.00	109.60	3,723.84	-0.31
			08/24/15	--	110.16	118.44	0.00	110.16	3,723.28	-0.56
MW-29 ^(6,7)	3,835.55	3,734.52 to 3,714.52	08/11/10	--	105.80	120.42	0.00	105.80	3,729.75	NA
			02/23/11	--	105.97	120.35	0.00	105.97	3,729.58	-0.17
			07/12/11	--	107.08	120.33	0.00	107.08	3,728.47	-1.11
			01/30/12	--	107.69	120.33	0.00	107.69	3,727.86	-0.61
			07/23/12	--	108.74	120.27	0.00	108.74	3,726.81	-1.05
			02/18/13	--	108.12	120.47	0.00	108.12	3,727.43	0.62
			08/19/13	--	109.49	120.68	0.00	109.49	3,726.06	-1.37
			02/24/14	--	110.43	120.70	0.00	110.43	3,725.12	-0.94
			08/18/14	--	111.35	120.30	0.00	111.35	3,724.20	-0.92
			02/23/15	--	111.65	120.30	0.00	111.65	3,723.90	-0.30
			08/24/15	--	112.29	120.35	0.00	112.29	3,723.26	-0.64
MW-30 ⁽⁸⁾	3,839.25	3,732.28 to 3,712.28	08/19/13	--	110.94	126.97	0.00	110.94	3,728.31	NA
			02/24/14	--	112.14	126.60	0.00	112.14	3,727.11	-1.20
			08/18/14	--	112.79	126.36	0.00	112.79	3,726.46	-0.65
			02/23/15	--	113.18	126.68	0.00	113.18	3,726.07	-0.39
			08/24/15	--	113.75	125.03	0.00	113.75	3,725.50	-0.57

Table 1. Water Elevation Measurements, HollyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Monitor Well	Top of Casing Elevation (feet)	Well Screen Interval (feet)	Date	Depth to Product (feet, btoc)	Depth to Water (feet, btoc)	Total Depth (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous measurement (ft)
RW-1	3,838.48	3,738.19 to 3,708.19	04/30/09	--	106.45	136.09	0.00	106.45	3,732.03	NA
			06/10/09	--	106.59	NM	0.00	106.59	3,731.89	-0.14
			06/19/09	--	106.61	129.62	0.00	106.61	3,731.87	-0.02
			07/02/09	--	106.82	129.25	0.00	106.82	3,731.66	-0.21
			07/24/09	--	106.92	129.31	0.00	106.92	3,731.56	-0.10
			09/24/09	--	107.42	129.73	0.00	107.42	3,731.06	-0.50
			10/27/09	--	107.53	129.25	0.00	107.53	3,730.95	-0.11
			01/13/10	--	107.67	129.29	0.00	107.67	3,730.81	-0.14
			02/02/10	--	107.69	NM	0.00	107.69	3,730.79	-0.02
			04/01/10	--	107.60	NM	0.00	107.60	3,730.88	0.09
			08/11/10	--	108.18	129.29	0.00	108.18	3,730.30	-0.58
			02/23/11	--	108.22	129.31	0.00	108.22	3,730.26	-0.04
			07/12/11	--	109.09	129.27	0.00	109.09	3,729.39	-0.87
			02/02/12	--	109.81	129.34	0.00	109.81	3,728.67	-0.72
			07/23/12	--	110.98	129.07	0.00	110.98	3,727.50	-1.17
			02/18/13	--	110.61	135.79	0.00	110.61	3,727.87	0.37
			08/19/13	--	111.67	129.64	0.00	111.67	3,726.81	-1.06
			02/24/14	--	112.59	129.60	0.00	112.59	3,725.89	-0.92
			08/18/14	--	113.50	129.28	0.00	113.50	3,724.98	-0.91
			02/23/15	--	113.95	129.26	0.00	113.95	3,724.53	-0.45
			08/24/15	--	114.56	129.25	0.00	114.56	3,723.92	-0.61

Notes:

- Monitoring wells MW-1 through MW-7 installed September 1995; plugged and redrilled April 2009.
- Monitoring wells MW-8 through MW-10 installed March and April 1996; plugged and redrilled April 2009.
- Monitoring wells MW-6R, MW-11, MW-12 installed April and May 2002; MW-6R plugged April 2009.
- Monitoring wells MW-13 and MW-14 installed January 2004.
- Elevation survey of new and existing wells August 7, 2009. Earlier water level information corrected to current survey.
- Monitoring wells MW-15 through MW-29 installed May-June 2010.
- Elevation survey of wells MW-15 through MW-29 July 13, 2010.
- Monitoring wells MW-12R, MW-17R, and MW-30 installed June 2013; MW-12 and MW-17 plugged and abandoned June 2013.

btoc = below top of casing

-- = Not Detected

NM = Not Measured

NA = Not Applicable

Table 2. Organic Constituent Concentrations in Groundwater

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-1	06/19/09	<0.0050	0.012	<0.0050	0.031	<0.0050	--	--	--	--	--
	01/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	<0.00020	<0.00020	<0.00020
	08/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/01/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/27/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/24/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	
02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-2	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/16/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/03/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/14/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/19/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00022
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/28/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-3 (duplicate)	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/24/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/15/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
(duplicate)	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/26/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
MW-4	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/13/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/15/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00044	0.00044	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/28/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.0003723	<0.000332	<0.000311	<0.000334	

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphth alene (mg/L)	2-Methylnaphth alene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-5 (duplicate)	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/20/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/24/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000382 J	
MW-6 (duplicate)	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	0.0075	--	--	--	--	--
	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	0.0074	--	--	--	--	--
	02/02/10	<0.0050	0.013	<0.0050	<0.015	0.0099	--	--	--	--	--
	08/19/10	<0.0050	0.015	<0.0050	<0.015	<0.0050	--	0.0017	--	0.0017	<0.0010
	03/01/11	<0.0050	0.018	<0.0050	<0.015	0.013	0.0094	0.0062	<0.00020	0.0032	0.0255
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0008	0.0008	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00116	0.00052	0.00064	<0.00020	<0.00020
08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00292	0.00092	0.0020	<0.00010	<0.00020	
02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-7	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/01/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/27/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000507 J	
MW-8	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/25/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/01/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/27/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000990 J	

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphth alene (mg/L)	2-Methylnaphth alene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-9	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/01/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/15/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/26/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-10	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/13/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	<0.00020	<0.00020
	03/03/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00028	0.00028	<0.00020	<0.00020	<0.00020
	07/15/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00032
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/26/15	<0.000331	<0.000384	<0.00078	<0.00106	<0.0010	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-11	06/18/09	0.10	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/18/10	0.20 E	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/18/10	0.078	0.021	<0.0050	<0.015	<0.0050	0.00036	0.00036	--	--	0.00122
	02/25/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	1.2	<0.0050	<0.0050	<0.015	<0.0050	0.00036	0.00036	--	<0.00020	0.00089
	02/01/12	7.8	0.051	<0.0050	0.200	0.096	0.0435	0.039	--	0.0045	0.0035
	07/27/12	0.049	<0.0050	<0.0050	<0.015	<0.0050	0.00022	0.00022	<0.00020	<0.00020	0.00023
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/28/14	0.9600	0.250	<0.0050	0.200	0.0064	--	--	--	--	--
	08/20/14	0.1100	0.011	<0.0050	0.030	<0.0050	--	--	--	--	--
	02/27/15	0.0026	0.00099 J	<0.00078	0.0036	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	0.0010 J
08/28/15	0.00856	0.00194	0.00283 J	0.0158	<0.00100	--	--	--	--	--	
(duplicate)	08/28/15	0.00922	0.00216	0.00305 J	0.0180	<0.00100	--	--	--	--	--
MW-12	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/20/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	--	DAMAGED WELL - NO SAMPLES COLLECTED									
MW-12R	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000362

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1- Methylnaphth alene (mg/L)	2- Methylnaphth alene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-13	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/18/10	0.016	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/25/11	0.0057	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00091
	07/19/11	0.0063	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/01/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/26/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/27/15	0.00034 J	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/26/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000379 J	
MW-14	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/20/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/18/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.000205	<0.00020	<0.000205	<0.000205	<0.000205
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/20/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
02/27/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000530 J	
MW-15	08/20/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/24/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/14/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/19/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/24/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/24/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020	
02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000997 J	
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000595 J	
MW-16	08/20/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/24/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/15/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00030	0.00030	--	<0.00020	<0.00020
	07/15/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	0.00037	0.00037	<0.00031	<0.00031	<0.00033
08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000397 J	

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-17	08/20/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/24/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/18/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	--	DAMAGED WELL - NO SAMPLES COLLECTED									
MW-17R	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000465 J
MW-18	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/24/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/18/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00021	0.00021	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/14	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00056
	08/20/14	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000507 J
MW-19	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/24/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/18/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00034
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	02/26/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/26/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000610 J
MW-20	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/25/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/18/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/25/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/15/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000508 J

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphth alene (mg/L)	2-Methylnaphth alene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-21 (duplicate)	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/26/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00031	<0.00020	<0.00020	0.00031	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000497 J	
MW-22	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/31/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/26/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/24/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-23	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/19/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/01/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/26/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/25/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334	
MW-24 (duplicate)	08/24/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/14/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/01/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000405	

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-25	08/23/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/18/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/01/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/26/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	(duplicate) 08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	(duplicate) 02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	(duplicate) 08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	(duplicate) 08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	(duplicate) 02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
(duplicate) 02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033	
(duplicate) 08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000728 J	
(duplicate) 08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000581 J	
MW-26	08/24/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/14/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/01/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/26/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00061
	02/26/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/25/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
	MW-27	08/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--
02/25/11		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00099
07/20/11		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	0.00034
02/01/12		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
07/26/12		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
02/26/13		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
08/20/13		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
02/27/14		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
08/21/14		<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
02/27/15		<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
08/26/15		<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
MW-28		08/28/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--
	02/23/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/14/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/19/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00086
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	0.00022
	02/24/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/19/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/23/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033 J
	08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	0.000774

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphth alene (mg/L)	2-Methylnaphth alene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
MW-29 (duplicate)	08/24/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/24/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/28/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/14/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	01/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.00050	0.00050	--	<0.00020	<0.00020
	07/24/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/26/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	0.00039 J
	08/27/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
MW-30	06/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/20/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/28/15	<0.000331	<0.000384	<0.000780	0.00142 J	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
RW-1	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	02/02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/19/10	<0.0050	<0.0050	<0.0050	0.015	<0.0050	--	--	--	--	--
	03/01/11	<0.0050	<0.0050	<0.0050	0.0054	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/27/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/27/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/21/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	02/25/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	08/27/15	<0.000331	<0.000384	<0.00078	<0.00106	<0.0010	<0.000372	<0.000372	<0.000332	<0.000311	0.000398 J
North Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/24/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/03/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/19/13	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/11/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	12/17/14	<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	03/09/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	05/19/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033
	08/28/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
	12/17/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334

Table 2. Organic Constituent Concentrations in Groundwater, HollyFrontier Navajo Refining, AP-110, Lovington, New Mexico

Monitor Well	Sample Date	WQCC Volatiles					WQCC Semi-Volatiles				
		Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalenes (8270, mg/L)	Naphthalene (8270, mg/L)	1-Methylnaphth alene (mg/L)	2-Methylnaphth alene (mg/L)	Total Phenols (mg/L)
NM WQCC Groundwater Standards:		0.010	0.75	0.75	0.62	0.03	0.03	--	--	--	0.005
South Well	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/24/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/03/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/19/13	0.0052	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	02/28/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	08/22/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	12/17/14	0.0023	<0.0010	<0.0010	<0.0015	<0.0020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	12/17/14	0.0023	<0.0010	<0.0010	<0.0015	<0.0020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	03/09/15	0.0014	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	03/09/15	0.0016	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	5/19/2015	0.0010 J	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033
	5/19/2015	0.00091 J	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033
	8/28/2015	0.00113	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
	8/28/2015	0.000921 J	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
	12/17/2015	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
	12/17/2015	0.00119	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
East Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	08/25/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	--	--	--	--	--
	03/03/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	07/20/11	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	02/02/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	--	<0.00020	<0.00020
	07/30/12	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/27/12	<0.0050	<0.0050	<0.0050	<0.015	--	<0.00020	<0.00020	<0.00020	--	<0.00020
	09/26/12	<0.0050	<0.0050	<0.0050	<0.015	--	<0.00020	<0.00020	<0.00020	--	<0.00020
	10/22/12	<0.0050	<0.0050	<0.0050	<0.015	--	<0.00020	<0.00020	<0.00020	--	<0.00020
	12/27/12	<0.0050	<0.0050	<0.0050	<0.015	--	<0.00020	<0.00020	<0.00020	--	<0.00020
	02/28/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	08/22/14	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00020
	12/17/14	<0.0010	<0.0010	<0.0010	<0.0015	<0.0020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
	03/09/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00031	<0.00031	<0.00033
	05/19/15	<0.00033	<0.00038	<0.00078	<0.0011	<0.0010	<0.00037	<0.00037	<0.00033	<0.00031	<0.00033
	08/28/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334
	12/17/15	<0.000331	<0.000384	<0.000780	<0.00106	<0.00100	<0.000372	<0.000372	<0.000332	<0.000311	<0.000334

Notes:

Shading indicates detected result exceeded the New Mexico Water Quality Control Commission (WQCC) Human Health Standard

mg/L = milligrams per liter

< = Not reported above laboratory reporting limit

-- = Not Analyzed

J = analyte was detected below the laboratory reporting limit, reported value is estimated

June 2009 to August 2014 analyses performed by ALS Laboratory Group in Houston, Texas

December 2014 analyses performed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico

February 2015 to August 2015 analyses performed by ESC Lab Sciences in Mount Juliet, Tennessee

Table 3. Inorganic Constituent Concentrations in Groundwater

lyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
	0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
	<0.00500	<0.00500	<0.200	<0.00500	0.974	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.01240
	<0.00500	<0.00500	<0.200	<0.00500	2.72	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00615	0.00989
	<0.00500	<0.00500	<0.200	<0.00500	1.62	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00538
	<0.00500	<0.00500	<0.200	<0.00500	1.62	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00689
	<0.00500	<0.00500	<0.200	<0.00500	0.485	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00832
	<0.00500	<0.00500	<0.200	<0.00500	0.780	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00766
	<0.00500	<0.00500	<0.200	<0.00500	1.05	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00759
	<0.00500	<0.00500	<0.200	<0.00500	0.662	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01070
	<0.00500	<0.00500	<0.200	<0.00500	1.32	<0.000200	<0.00500	0.01640	<0.00500	<0.00500	<0.00500	0.00641
	<0.00500	<0.00500	<0.200	<0.00500	0.690	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00874
	<0.00500	<0.00500	<0.200	<0.00500	0.0172	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02420
	<0.00230	<0.00530	<0.014	0.00048 J	<0.0012	<0.000049	0.00250	<0.00490	<0.00740	<0.00280	0.00220 J	0.00670 J
	<0.00026	<0.00052	<0.0141	<0.000240	0.00191 J	<0.000049	0.00236 J	<0.00035	0.00268	<0.00031	0.00187 J	<0.00256
	<0.00500	0.00621	<0.200	<0.00500	0.00583	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.1100
	<0.00500	<0.00500	<0.200	<0.00500	0.00538	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0166
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0204
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0117
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0230
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0255
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0191
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0436
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00721
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0130
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0214
	<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.0034 J	<0.00490	<0.00740	<0.00280	0.00260 J	<0.0059
	<0.00026	0.000548 J	<0.0141	<0.00024	0.000533 J	<0.000049	0.00254 J	0.00115 J	0.00147 J	<0.000310	0.00340 J	0.00382 J
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.01510	<0.00500	<0.00500	<0.00500	--	<0.0100
	<0.00500	0.12100	<0.200	<0.00500	0.00597	<0.000200	0.02000	0.00842	<0.00500	<0.00500	0.000625	0.01950
	<0.00500	0.14800	<0.200	<0.00500	0.00699	<0.000200	0.02160	0.00960	<0.00500	<0.00500	0.000721	0.02300
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00790	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.05240
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00510	<0.00500	<0.00500	<0.00500	<0.00500	0.01560
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00621	<0.00500	<0.00500	<0.00500	<0.00500	0.00886
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00673
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00546	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00560	<0.00500	<0.00500	<0.00500	0.00527
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.00094	<0.00490	<0.00740	<0.00280	0.000570	<0.00590
	<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.00110 J	<0.00490	0.00850 J	<0.00280	0.000560 J	0.00880 J
	<0.00026	0.00101 J	<0.0141	<0.00024	0.000572 J	<0.000049	<0.00160	0.000483 J	0.00269	<0.00031	0.000567 J	0.00296 J
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.01200
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00102	<0.00500
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00533
	<0.00500	<0.00500	<0.200	<0.00500	0.01140	<0.000200	<0.00500	0.01030	<0.00500	<0.00500	<0.00500	0.02110
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01470
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01020
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01160
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00506
	<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00801
	<0.00500	<0.00500	0.241	<0.00500	0.00595	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02210
	<0.00230	<0.00530	<0.014	0.00025 J	<0.00120	0.00011 J	0.00340 J	<0.00490	<0.00740	<0.00280	0.00160 J	<0.00590
	<0.00026	<0.00052	<0.0141	<0.00024	0.00114 J	<0.000049	0.00319 J	0.000482 J	0.00228	<0.00031	0.00168 J	0.00269 J

lyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	0.399	<0.00500	0.00670	<0.000200	0.01030	<0.00500	<0.00500	<0.00500	--	<0.01000
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.01420	<0.000200	<0.00500	0.01120	<0.00500	<0.00500	<0.00500	0.03680
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03090
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00948
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01190
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.05620
<0.00500	0.04340	<0.200	<0.00500	0.01580	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00582	0.02890
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00507	0.02080
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01140
<0.00500	<0.00500	<0.200	<0.00500	0.00532	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00535	0.00626
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.00450 J	<0.00490	<0.00740	<0.00280	0.00400 J	0.00890 J
<0.00026	0.00102 J	<0.0141	<0.00024	<0.00025	<0.000049	0.00476 J	0.000814 J	<0.00038	<0.00031	0.00410 J	0.00539 J
<0.00500	<0.00500	0.418	<0.00500	2.86	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.00996
<0.00500	<0.00500	0.219	<0.00500	2.76	<0.000200	<0.00500	0.00653	<0.00500	<0.00500	--	0.01410
<0.00500	<0.00500	2.08	<0.00500	4.51	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	0.01130	<0.00500
<0.00500	<0.00500	1.86	<0.00500	6.61	<0.000200	<0.00500	0.00766	<0.00500	<0.00500	0.00785	<0.00500
<0.00500	<0.00500	0.711	<0.00500	5.58	<0.000200	<0.00500	0.00896	<0.00500	<0.00500	0.00659	<0.00500
<0.00500	<0.00500	1.57	<0.00500	4.51	<0.000200	<0.00500	0.00576	<0.00500	<0.00500	<0.00500	0.01760
<0.00500	<0.00500	0.488	<0.00500	1.25	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00599	0.00858
<0.00500	<0.00500	1.28	<0.00500	2.53	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.01020	0.01940
<0.00500	<0.00500	1.31	<0.00500	1.97	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00789	0.01230
<0.00500	<0.00500	1.33	<0.00500	2.02	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00833	0.01060
<0.00500	<0.00500	<0.200	<0.00500	1.68	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00606	<0.00500
<0.00500	<0.00500	3.42	<0.00500	2.71	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00882	0.00622
<0.00500	<0.00500	0.268	<0.00500	3.06	<0.000200	<0.00500	0.00651	<0.00500	<0.00500	0.00744	0.01510
<0.00230	<0.00530	0.015 J	0.00072 J	1.00	<0.000049	0.00260 J	<0.00490	<0.00740	<0.00280	0.00660 J	0.02000
<0.00026	0.00054 J	<0.0141	<0.00024	0.411	<0.000049	0.00192 J	0.00134 J	0.00242	<0.00031	0.00463 J	0.00347 J
<0.00500	<0.00500	<0.200	<0.00500	0.127	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.01370
<0.00500	<0.00500	<0.200	<0.00500	0.125	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.343	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.441	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00593
<0.00500	<0.00500	<0.200	<0.00500	0.617	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.550	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00746
<0.00500	<0.00500	<0.200	<0.00500	0.642	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01140
<0.00500	<0.00500	<0.200	<0.00500	0.300	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00844
<0.00500	<0.00500	<0.200	<0.00500	0.365	<0.000200	<0.00500	<0.00500	0.00600	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.781	<0.000200	<0.00500	<0.00500	0.00540	<0.00500	<0.00500	0.00818
<0.00500	<0.00500	<0.200	<0.00500	0.470	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00566
<0.00230	<0.00530	<0.014	0.00041 J	0.011	<0.000049	0.00110 J	<0.00490	<0.00740	<0.00280	0.00330 J	0.00830 J
<0.00026	<0.00052	<0.0141	<0.00024	0.0184	<0.000049	0.00175 J	<0.00035	0.00334	<0.00031	0.00236 J	<0.00256
<0.00500	<0.00500	<0.200	<0.00500	0.00919	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.04580
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00545
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00501	0.00760
<0.00500	<0.00500	<0.200	<0.00500	0.28100	<0.000200	<0.00500	0.00620	<0.00500	<0.00500	<0.00500	0.03160
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00928	0.02130
<0.00500	<0.00500	<0.200	<0.00500	0.00636	<0.000200	<0.00500	0.01190	<0.00500	<0.00500	0.00745	0.03390
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00523	<0.00500	<0.00500	0.00714	0.00888
<0.00500	<0.00500	<0.200	<0.00500	0.00592	<0.000200	<0.00500	0.00999	<0.00500	<0.00500	0.00690	0.01880
<0.00500	<0.00500	<0.200	<0.00500	0.02080	<0.000200	<0.00500	0.01350	<0.00500	<0.00500	<0.00500	0.01070
<0.00500	<0.00500	0.541	<0.00500	0.02400	<0.000200	<0.00500	0.03390	<0.00500	<0.00500	0.00916	0.01020
<0.00500	<0.00500	0.274	<0.00500	0.01280	<0.000200	<0.00500	0.02580	<0.00500	<0.00500	0.00639	0.01810
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.000830 J	<0.00490	<0.00740	<0.00280	0.00730 J	0.00590 J
0.000346 J	0.000544 J	<0.0141	<0.00024	0.00141 J	<0.000049	0.000854 J	0.00204	0.00224	<0.00031	0.00891 J	0.00316 J

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Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.0100
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000656	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.00961	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00662
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00511	<0.00500	<0.00500	<0.00500	0.00932
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00529
<0.00500	<0.00500	<0.200	<0.00500	0.00708	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00716
<0.00500	<0.00500	0.702	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01670
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.00588	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	0.00644	2.22	<0.00500	0.09030	<0.000200	0.00662	0.11100	<0.00500	<0.00500	<0.00500	0.03340
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.00140 J	<0.00490	<0.00740	<0.00280	0.00310 J	<0.00590
<0.00026	0.000626 J	<0.0141	<0.00024	<0.00025	<0.000049	<0.00160	0.000566 J	<0.00297	<0.00031	0.00285 J	0.00258 J
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.01270
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000911	0.01330
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00569
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01330
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02520
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00861
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00633
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00671
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00979
<0.00500	<0.00500	<0.200	<0.00500	0.00939	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01140
<0.00230	<0.0053	<0.014	0.00030 J	<0.00120	<0.000049	0.00260 J	<0.00490	<0.0074	<0.00280	0.00190 J	0.00600 J
<0.00026	0.000803 J	<0.0141	<0.00024	<0.00025	<0.000049	0.00258 J	<0.00035	0.00283	<0.00031	0.00158 J	<0.00256
<0.00500	<0.00500	0.571	<0.00500	0.3870	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.02120
<0.00500	<0.00500	<0.200	<0.00500	0.0559	<0.000200	<0.00500	0.01260	<0.00500	<0.00500	0.00635	<0.00500
<0.00500	<0.00500	0.347	<0.00500	0.5710	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00718	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.0101	<0.000200	<0.00500	0.00856	<0.00500	<0.00500	0.00878	0.09820
<0.00500	<0.00500	<0.200	<0.00500	0.0301	<0.000200	<0.00500	0.00846	<0.00500	<0.00500	0.00616	0.02650
<0.00500	<0.00500	1.77	<0.00500	1.05	<0.000200	<0.00500	0.01690	<0.00500	<0.00500	0.01380	0.01890
<0.00500	<0.00500	2.02	<0.00500	2.54	<0.000200	<0.00500	0.03510	<0.00500	<0.00500	0.03300	<0.00500
0.00604	<0.00500	<0.200	<0.00500	5.24	<0.000200	0.00631	0.08610	<0.00500	<0.00500	0.01270	0.02260
0.00574	<0.00500	<0.200	<0.00500	5.47	<0.000200	0.00619	0.08110	<0.00500	<0.00500	0.01250	0.01990
<0.00500	<0.00500	<0.200	<0.00500	2.62	<0.000200	<0.00500	0.00869	<0.00500	<0.00500	0.00723	0.00547
<0.00500	<0.00500	<0.200	<0.00500	2.92	<0.000200	<0.00500	0.00906	<0.00500	<0.00500	0.00714	0.00592
--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
<0.00500	<0.00500	<0.200	<0.00500	1.10	<0.000200	<0.00500	0.02170	<0.00500	<0.00500	0.02690	0.01040
--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)	--(1)
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.0100
<0.00500	<0.00500	<0.200	<0.00500	0.02190	<0.000200	<0.00500	0.01820	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01850
<0.00500	<0.00500	<0.200	<0.00500	0.00976	<0.000200	0.00575	0.00684	<0.00500	<0.00500	<0.00500	<0.00500
WELL - NO SAMPLES COLLECTED											
<0.00500	<0.00500	<0.200	<0.00500	0.01290	<0.000200	0.00647	0.01030	<0.00500	<0.00500	<0.00500	0.00956
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00992	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	0.867	<0.00500	0.04830	<0.000200	0.00554	0.03500	<0.00500	<0.00500	<0.00500	0.00962
<0.0023	<0.0053	<0.014	<0.00024	<0.0012	<0.000049	0.0042 J	<0.00490	<0.00740	<0.00280	0.00190 J	0.00810 J
<0.000260	<0.000520	<0.0141	<0.00024	0.00203 J	<0.000049	0.00294 J	0.00191 J	0.000707 J	<0.00031	0.00270 J	0.00291 J

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Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
0.0285	<0.00500	<0.200	<0.00500	0.0176	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	--	0.02690
0.00624	<0.00500	<0.200	<0.00500	0.0591	<0.000200	<0.00500	0.0110	<0.00500	<0.00500	0.0119	0.00769
<0.00500	<0.00500	<0.200	<0.00500	0.256	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0128	0.00618
<0.00500	<0.00500	<0.200	<0.00500	0.225	<0.000200	<0.00500	0.0144	<0.00500	<0.00500	0.0170	0.07440
<0.00500	<0.00500	<0.200	<0.00500	0.302	<0.000200	<0.00500	0.0121	<0.00500	<0.00500	0.0188	0.00785
0.00663	<0.00500	<0.200	<0.00500	0.341	<0.000200	<0.00500	0.0136	<0.00500	<0.00500	0.0128	0.05530
0.00644	<0.00500	<0.200	<0.00500	0.459	<0.000200	<0.00500	0.0108	<0.00500	<0.00500	0.0158	0.03610
0.00657	<0.00500	<0.200	<0.00500	0.571	<0.000200	0.00568	0.0820	<0.00500	<0.00500	0.0123	0.03590
<0.00500	<0.00500	<0.200	<0.00500	0.705	<0.000200	<0.00500	0.0209	<0.00500	<0.00500	0.0153	0.00931
0.00541	<0.00500	0.321	<0.00500	1.01	<0.000200	<0.00500	0.0300	<0.00500	<0.00500	0.0173	0.02910
<0.00500	<0.00500	<0.200	<0.00500	0.940	<0.000200	<0.00500	0.0065	<0.00500	<0.00500	0.0151	0.01150
0.00470 J	<0.00530	<0.014	<0.00024	0.820	<0.000049	0.00100 J	<0.00490	<0.00740	<0.00280	0.0140	0.01900 J
0.00163 J	0.00208 J	<0.0141	<0.00024	0.383	-- ⁽¹⁾	0.00143 J	0.00276	0.000710 J	<0.00031	0.0112	0.00592 J
<0.00500	<0.00500	<0.200	<0.00500	0.01990	<0.000200	0.02150	<0.00501	<0.00500	<0.00500	--	0.0255
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00964	0.0480	<0.00500	<0.00500	0.00527	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.02340	<0.000200	0.00903	0.0138	<0.00500	<0.00500	0.00541	0.0532
0.122	0.21800	54.9	<0.00500	1.45	<0.000200	0.08600	6.81	<0.00500	<0.00500	0.00544	0.0446
<0.00500	<0.00500	<0.200	<0.00500	0.02760	<0.000200	0.00608	0.0186	<0.00500	<0.00500	<0.00500	0.0287
<0.00500	<0.00500	<0.200	<0.00500	0.03210	<0.000200	<0.00500	0.0240	<0.00500	<0.00500	<0.00500	0.0448
<0.00500	0.07050	<0.200	<0.00500	0.03490	<0.000200	0.01210	0.0106	<0.00500	<0.00500	0.00591	0.1480
-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾	-- ⁽¹⁾
<0.00500	<0.00500	0.314	<0.00500	0.00919	<0.000200	0.00533	0.0178	<0.00500	<0.00500	0.00502	0.0134
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	--	0.00400 J	<0.00490	<0.00740	<0.0028	0.00470 J	0.0070 J
0.000326 J	0.00122 J	<0.0141	<0.00024	<0.000250	-- ⁽¹⁾	0.00429 J	0.00190 J	0.00123 J	<0.00031	0.00485 J	0.00334 J
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01980
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03850
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00657	<0.00500	<0.00500	<0.00500	0.01220
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00967
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00636
<0.00500	<0.00500	0.610	<0.00500	0.01980	<0.000200	<0.00500	0.07040	<0.00500	<0.00500	<0.00500	0.01600
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00854
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00619
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.00509	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01490
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02130
<0.0023	<0.0053	<0.014	<0.00024	<0.00120	<0.000049	0.00240 J	<0.00490	<0.00740	<0.00280	0.0021 J	0.01200 J
<0.00026	0.00109 J	<0.0141	0.000373 J	0.000492 J	<0.000049	0.00249 J	0.000825 J	0.00232	<0.00031	0.00220 J	<0.00256
<0.00026	<0.000520	0.0144 J	<0.000240	0.000276 J	<0.000049	0.00254 J	0.000688 J	0.00253	<0.00031	0.00200 J	<0.00256
<0.00500	<0.00500	<0.200	<0.00500	0.00554	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01450
<0.00500	<0.00500	<0.200	<0.00500	0.00671	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02480
<0.00500	<0.00500	0.613	<0.00500	0.01640	<0.000200	<0.00500	0.05910	<0.00500	<0.00500	<0.00500	0.01760
<0.00500	<0.00500	0.241	<0.00500	0.00820	<0.000200	<0.00500	0.02340	<0.00500	<0.00500	<0.00500	0.01660
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00899
<0.00500	<0.00500	<0.200	<0.00500	0.01620	<0.000200	<0.00500	0.01120	<0.00500	<0.00500	<0.00500	0.01670
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00693
<0.00500	<0.00500	<0.200	<0.00500	0.02190	<0.000200	<0.00500	0.01770	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.02250	<0.000200	0.00516	0.02950	<0.00500	<0.00500	<0.00500	0.00786
<0.00500	<0.00500	<0.200	<0.00500	0.00544	<0.000200	<0.00500	0.00667	<0.00500	<0.00500	<0.00500	0.00897
<0.00230	<0.0053	<0.014	<0.00024	0.00420 J	<0.000049	0.00350 J	<0.00490	<0.00740	<0.00280	0.00160 J	0.01400 J
<0.00026	0.000638 J	<0.0141	<0.00024	0.000312 J	<0.000049	0.00293 J	<0.00035	0.00228	<0.00031	0.00156 J	0.00343 J

lyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0142
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0478
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0126
WELL - NO SAMPLES COLLECTED											
<0.00500	<0.00500	<0.200	<0.00500	0.0819	<0.000200	0.00531	0.0189	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.0342	<0.000200	<0.00500	0.0273	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.0989	<0.000200	<0.00500	0.0378	<0.00500	<0.00500	<0.00500	0.02430
<0.00230	<0.0053	<0.014	0.00030 J	<0.0012	<0.000049	0.00130 J	<0.0049	<0.00740	<0.00280	0.00300 J	0.02300 J
<0.00026	0.000632 J	0.0218 J	<0.000240	0.00123 J	<0.000049	0.00163 J	0.000779 J	0.00203	<0.00031	0.00267 J	<0.00256
<0.00500	<0.00500	<0.200	<0.00500	0.31400	<0.000200	0.00561	0.0298	0.00548	<0.00500	0.0123	0.07720
<0.00500	<0.00500	<0.200	<0.00500	0.00536	<0.000200	<0.00500	0.0144	0.00501	<0.00500	0.00883	0.04390
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.0129	<0.00500	<0.00500	0.00666	0.06610
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01910
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00684
<0.00500	<0.00500	<0.200	<0.00500	0.01290	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0138	0.01870
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00509	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	0.0215	<0.200	<0.00500	0.01770	<0.000200	<0.00500	0.00681	<0.00500	<0.00500	0.00701	0.04650
<0.00500	<0.00500	0.637	<0.00500	0.03780	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	<0.00500	0.03630
<0.00230	0.0061 J	0.022 J	0.00026 J	<0.00120	<0.000049	0.00200 J	<0.00490	<0.00740	<0.00280	0.00390 J	0.01700 J
<0.00026	0.000646 J	<0.0141	<0.00024	0.00120 J	<0.000049	0.00612	0.00151 J	0.00178 J	<0.00031	0.00434 J	0.00669 J
<0.00500	<0.00500	<0.200	<0.00500	0.00666	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02270
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03180
<0.00500	<0.00500	<0.200	<0.00500	0.00781	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.05530
<0.00500	<0.00500	<0.200	<0.00500	0.00553	<0.000200	<0.00500	0.00525	<0.00500	<0.00500	<0.00500	0.03450
<0.00500	<0.00500	<0.200	<0.00500	0.00593	<0.000200	<0.00500	0.00664	<0.00500	<0.00500	<0.00500	0.07140
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00566	<0.00500	<0.00500	<0.00500	0.06290
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00512
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00900	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.01570	<0.000200	<0.00500	0.01220	<0.00500	<0.00500	<0.00500	0.03330
<0.00500	<0.00500	<0.200	<0.00500	0.01650	<0.000200	<0.00500	0.01230	<0.00500	<0.00500	<0.00500	0.03500
<0.00500	<0.00500	0.263	<0.00500	0.02040	<0.000200	<0.00500	0.02610	<0.00500	<0.00500	<0.00500	0.00854
<0.00500	<0.00500	<0.200	<0.00500	0.01060	<0.000200	<0.00500	0.00943	<0.00500	<0.00500	<0.00500	0.00640
<0.0023	<0.0053	<0.014	<0.00024	<0.00120	<0.000049	0.00320 J	<0.00490	<0.00740	<0.00280	0.00250 J	0.01400 J
<0.0023	<0.0053	<0.014	<0.00024	<0.00120	<0.000049	0.00320 J	<0.00490	<0.00740	<0.00280	0.00250 J	0.01300 J
<0.000260	0.000732 J	<0.0141	<0.00024	<0.00025	<0.000049	0.01070	0.00168 J	0.00138 J	<0.00031	0.00179 J	0.00486 J
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00970
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.06430
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02780
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01710
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01870
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01650
<0.00500	<0.00500	<0.200	<0.00500	0.00966	<0.000200	<0.00500	0.0112	<0.00500	<0.00500	<0.00500	0.02420
<0.00500	<0.00500	<0.200	<0.00500	0.01070	<0.000200	<0.00500	0.0080	<0.00500	<0.00500	<0.00500	0.00954
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01160
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.0024 J	<0.00490	<0.00740	<0.00280	0.00260 J	0.02300 J
<0.000260	0.00109 J	<0.0141	<0.00024	<0.00025	<0.000049	0.00167 J	0.000669 J	0.00141 J	<0.00031	0.00254 J	0.00578 J

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Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	<0.200	<0.00500	0.0567	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00898	0.0307
<0.00500	<0.00500	<0.200	<0.00500	0.1020	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.0101	0.0184
<0.00500	<0.00500	<0.200	<0.00500	0.1010	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00975	0.0213
<0.00500	<0.00500	<0.200	<0.00500	0.0346	<0.000200	<0.00500	0.00836	<0.00500	<0.00500	0.00873	0.0286
<0.00500	<0.00500	<0.200	<0.00500	0.0375	<0.000200	<0.00500	0.00746	<0.00500	<0.00500	0.00704	0.0170
<0.00500	<0.00500	<0.200	<0.00500	0.0380	<0.000200	<0.00500	0.00827	<0.00500	<0.00500	0.00862	0.0163
<0.00500	<0.00500	0.403	<0.00500	0.0467	<0.000200	<0.00500	0.04090	<0.00500	<0.00500	0.00962	0.0319
<0.00500	<0.00500	<0.200	<0.00500	0.0668	<0.000200	<0.00500	0.02190	<0.00500	<0.00500	0.00936	0.0195
<0.00500	<0.00500	<0.200	<0.00500	0.0709	<0.000200	<0.00500	0.01710	<0.00500	<0.00500	0.00939	0.0531
<0.00500	<0.00500	0.344	<0.00500	0.0439	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00844	0.0208
<0.00230	<0.00530	<0.014	0.00032 J	0.0280	<0.000049	0.00074 J	<0.00490	<0.00740	<0.00280	0.0089 J	0.02500 J
<0.000260	0.000702 J	<0.0141	0.000854 J	0.0110	<0.000049	<0.00160	0.00180 J	0.000525 J	<0.00031	0.00837 J	0.00615 J
<0.00500	<0.00500	<0.200	<0.00500	0.03060	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00604	0.09160
<0.00500	<0.00500	<0.200	<0.00500	0.01080	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00616	0.04870
<0.00500	<0.00500	<0.200	<0.00500	0.00721	<0.000200	<0.00500	0.00546	<0.00500	<0.00500	0.00638	0.02030
<0.00500	<0.00500	<0.200	<0.00500	0.01030	<0.000200	<0.00500	0.00762	<0.00500	<0.00500	0.00501	0.01830
<0.00500	<0.00500	<0.200	<0.00500	0.00949	<0.000200	<0.00500	0.00839	<0.00500	<0.00500	0.00564	0.00680
<0.00500	<0.00500	0.269	<0.00500	0.03860	<0.000200	<0.00500	0.05200	<0.00500	<0.00500	0.00590	0.02080
<0.00500	<0.00500	<0.200	<0.00500	0.02330	<0.000200	<0.00500	0.02090	<0.00500	<0.00500	0.00658	0.00566
<0.00500	<0.00500	<0.200	<0.00500	0.02380	<0.000200	<0.00500	0.02660	<0.00500	<0.00500	0.00632	0.01500
<0.00500	0.00983	4.32	0.00743	0.07150	<0.000200	0.00881	0.09990	<0.00500	<0.00500	0.0336	0.03700
<0.0023	<0.0053	<0.014	0.00077 J	0.00260 J	<0.000049	0.00140 J	<0.00490	<0.00740	<0.00280	0.01200	0.01900 J
0.000337 J	0.000760 J	<0.0141	<0.00024	0.00253 J	<0.000049	<0.00160	0.00240	<0.00038	<0.00031	0.00934 J	0.00438 J
<0.00500	<0.00500	<0.200	<0.00500	0.00669	<0.000200	<0.00500	0.00859	<0.00500	<0.00500	<0.00500	0.05700
<0.00500	<0.00500	<0.200	<0.00500	0.00831	<0.000200	<0.00500	0.00930	<0.00500	<0.00500	<0.00500	0.04630
<0.00500	<0.00500	<0.200	<0.00500	0.00647	<0.000200	<0.00500	0.00912	<0.00500	<0.00500	<0.00500	0.02130
<0.00500	<0.00500	<0.200	<0.00500	0.00658	<0.000200	<0.00500	0.00714	<0.00500	<0.00500	<0.00500	0.02070
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01010
<0.00500	<0.00500	<0.200	<0.00500	0.00944	<0.000200	<0.00500	0.01550	<0.00500	<0.00500	<0.00500	0.01790
<0.00500	<0.00500	<0.200	<0.00500	0.03150	<0.000200	<0.00500	0.02860	<0.00500	<0.00500	0.00533	0.00919
<0.00500	<0.00500	<0.200	<0.00500	0.04860	<0.000200	<0.00500	0.04100	<0.00500	<0.00500	<0.00500	0.02240
<0.00500	<0.00500	<0.200	<0.00500	0.15700	<0.000200	0.00522	0.07190	<0.00500	<0.00500	<0.00500	0.01040
<0.0023	<0.0053	<0.014	0.00031 J	<0.00120	<0.000049	0.00170 J	<0.00490	<0.00740	<0.00280	0.00520 J	0.04600 J
<0.000260	0.00198 J	<0.0141	0.000316 J	0.00167 J	<0.000049	<0.00160	0.00187 J	0.00147 J	<0.00031	0.00508 J	0.00494 J
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00922
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	<0.00500	0.02450
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00543	<0.00500	<0.00500	<0.00500	0.02490
<0.00500	<0.00500	<0.200	<0.00500	0.00760	<0.000200	<0.00500	0.00725	<0.00500	<0.00500	<0.00500	0.01010
<0.00500	<0.00500	<0.200	<0.00500	0.00508	<0.000200	<0.00500	0.00758	<0.00500	<0.00500	<0.00500	0.01270
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00731	<0.00500	<0.00500	<0.00500	0.01550
<0.00500	<0.00500	<0.200	<0.00500	0.01060	<0.000200	<0.00500	0.01650	<0.00500	<0.00500	<0.00500	0.01510
<0.00500	<0.00500	<0.200	<0.00500	0.01460	<0.000200	<0.00500	0.01570	<0.00500	<0.00500	<0.00500	0.00684
<0.00500	<0.00500	<0.200	<0.00500	0.01390	<0.000200	<0.00500	0.02130	<0.00500	<0.00500	<0.00500	0.02070
<0.00500	0.00634	1.28	<0.00500	0.03830	<0.000200	0.00911	0.13500	<0.00500	<0.00500	<0.00500	0.01140
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.00250 J	<0.00490	<0.00740	<0.00280	0.00260 J	0.01300 J
<0.00026	0.000742 J	<0.0141	<0.00024	0.000287 J	<0.000049	0.00185 J	0.00058 J	0.00102 J	<0.00031	0.00239 J	0.00575 J

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Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	<0.200	<0.00500	0.01090	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01940
<0.00500	<0.00500	<0.200	<0.00500	0.00715	<0.000200	<0.00500	0.00516	<0.00500	<0.00500	0.00535	0.04240
<0.00500	<0.00500	<0.200	<0.00500	0.00608	<0.000200	<0.00500	0.00832	<0.00500	<0.00500	<0.00500	0.00556
<0.00500	<0.00500	<0.200	<0.00500	0.00804	<0.000200	<0.00500	0.00708	<0.00500	<0.00500	0.00602	0.00582
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01020
<0.00500	<0.00500	<0.200	<0.00500	0.01040	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00807	0.01480
<0.00500	<0.00500	<0.200	<0.00500	0.01220	<0.000200	<0.00500	0.02100	<0.00500	<0.00500	0.00862	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.01270	<0.000200	<0.00500	0.02100	<0.00500	<0.00500	0.00860	0.00607
<0.00500	<0.00500	<0.200	<0.00500	0.00881	<0.000200	<0.00500	0.00775	<0.00500	<0.00500	0.00724	0.02100
<0.00500	<0.00500	<0.200	<0.00500	0.00882	<0.000200	<0.00500	0.00701	<0.00500	<0.00500	0.00645	0.02050
<0.00500	<0.00500	0.814	<0.00500	0.04560	<0.000200	0.00573	0.10000	<0.00500	<0.00500	0.00749	0.01060
<0.00500	0.00504	0.968	<0.00500	0.05110	<0.000200	0.00638	0.11300	<0.00500	<0.00500	0.00764	0.01200
<0.0023	<0.0053	<0.014	0.00050 J	<0.00120	<0.000049	0.00290 J	0.00560 J	<0.00740	<0.00280	0.00780 J	0.00860 J
<0.0023	<0.0053	<0.014	0.00026 J	<0.00120	<0.000049	0.00110 J	0.00540 J	<0.00740	<0.00280	0.00800 J	0.01400 J
0.00119 J	<0.000520	<0.0141	<0.00024	0.00279 J	<0.000049	<0.00160	0.00514	0.00109 J	<0.00031	0.00732 J	0.00472 J
0.00113 J	0.00103 J	<0.0141	<0.00024	0.00287 J	<0.000049	<0.00160	0.00528	0.00102 J	<0.00031	0.00748 J	0.00497 J
<0.00500	<0.00500	<0.200	<0.00500	0.01560	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02540
<0.00500	<0.00500	<0.200	<0.00500	0.00890	<0.000200	<0.00500	0.00734	<0.00500	<0.00500	0.00602	0.03280
<0.00500	<0.00500	<0.200	<0.00500	0.00679	<0.000200	<0.00500	0.00792	<0.00500	<0.00500	0.00546	0.00949
<0.00500	<0.00500	<0.200	<0.00500	0.01220	<0.000200	<0.00500	0.01330	<0.00500	<0.00500	<0.00500	0.01170
<0.00500	<0.00500	<0.200	<0.00500	0.00694	<0.000200	<0.00500	0.00568	<0.00500	<0.00500	0.00559	0.02330
<0.00500	<0.00500	<0.200	<0.00500	0.06350	<0.000200	<0.00500	0.05580	<0.00500	<0.00500	<0.00500	0.00877
<0.00500	<0.00500	<0.200	<0.00500	0.01740	<0.000200	<0.00500	0.00539	<0.00500	<0.00500	0.00577	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.00979	<0.000200	<0.00500	0.01280	<0.00500	<0.00500	0.00583	0.00770
<0.00500	<0.00500	<0.200	<0.00500	0.00938	<0.000200	<0.00500	0.00900	<0.00500	<0.00500	0.00548	0.01500
<0.0023	<0.0053	0.058 J	<0.00024	0.00220 J	<0.000049	0.00110 J	<0.00490	<0.00740	<0.00280	0.00410 J	0.01500 J
0.000366 J	0.000593 J	<0.0141	<0.00024	0.00175 J	<0.000049	<0.00160	0.00104 J	<0.000380	<0.00031	0.00440 J	0.00418 J
<0.00500	<0.00500	<0.200	<0.00500	0.05340	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00544	0.04530
<0.00500	<0.00500	<0.200	<0.00500	0.03360	<0.000200	<0.00500	0.00769	<0.00500	<0.00500	0.00625	0.02940
<0.00500	<0.00500	0.393	<0.00500	0.01790	<0.000200	<0.00500	0.04150	<0.00500	<0.00500	0.00571	0.01210
<0.00500	<0.00500	<0.200	<0.00500	0.00556	<0.00800	<0.00500	0.00533	<0.00500	<0.00500	<0.00500	0.01170
<0.00500	<0.00500	<0.200	<0.00500	0.00587	<0.000200	<0.00500	0.00737	<0.00500	<0.00500	<0.00500	0.01040
<0.00500	<0.00500	<0.200	<0.00500	0.05860	<0.000200	0.00513	0.05930	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.02390	<0.000200	<0.00500	0.01890	<0.00500	<0.00500	0.00899	0.00624
<0.00500	<0.00500	<0.200	<0.00500	0.01340	<0.000200	<0.00500	0.02860	<0.00500	<0.00500	0.00680	0.01820
<0.00500	<0.00500	0.278	<0.00500	0.06360	<0.000200	<0.00500	0.05920	<0.00500	<0.00500	0.00648	<0.00590
<0.0023	<0.0053	<0.014	<0.00024	<0.00120	<0.000049	0.00290 J	<0.00490	0.00800 J	<0.00280	0.00980 J	<0.00590
<0.000260	0.000627 J	<0.0141	<0.00024	0.00206 J	<0.000049	0.01390	0.00405	0.00318	<0.00031	0.00550 J	<0.00256
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01900
<0.00500	<0.00500	<0.200	<0.00500	0.00658	<0.000200	<0.00500	0.00696	<0.00500	<0.00500	<0.00500	0.01130
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00812
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.04660
<0.00500	0.20300	<0.200	<0.00500	0.02750	<0.000200	0.01000	<0.00500	<0.00500	<0.00500	<0.00500	0.01680
<0.00500	0.01010	<0.200	<0.00500	0.00874	<0.000200	<0.00500	0.00561	<0.00500	<0.00500	<0.00500	0.00674
<0.00500	0.00514	<0.200	<0.00500	0.00509	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03350
<0.00500	0.03960	0.760	<0.00500	0.01280	<0.000200	<0.00500	0.01290	<0.00500	<0.00500	<0.00500	0.01700
<0.00230	0.00550 J	<0.014	<0.00024	<0.0012	<0.000049	0.00180 J	<0.00490	<0.00740	<0.00280	0.00250 J	0.01700 J
<0.00026	0.00598	0.0385 J	<0.00024	0.000680 J	<0.000049	0.00186 J	<0.00035	0.00220	<0.00031	0.00238 J	0.00393 J

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Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03750
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03010
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02670
<0.00500	<0.00500	<0.200	<0.00500	0.00532	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02400
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01620
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01320
<0.00500	<0.00500	<0.200	<0.00500	0.04710	<0.000200	<0.00500	0.03340	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.01590	<0.000200	<0.00500	0.00667	<0.00500	<0.00500	<0.00500	0.01150
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00739
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00902
<0.00500	<0.00500	0.697	<0.00500	0.07540	<0.000200	0.00594	0.07770	<0.00500	<0.00500	<0.00500	0.01300
<0.00230	<0.00530	<0.014	<0.00024	<0.00120	<0.000049	0.00120 J	<0.00490	<0.00740	<0.00280	0.00620 J	0.01300 J
<0.00026	0.000784 J	<0.0141	<0.00024	0.00153 J	<0.000049	0.00111 J	0.000629 J	0.00169 J	<0.00031	0.00641 J	0.00333 J
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	0.00913	<0.00500	0.00554	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.05890	<0.000200	<0.00500	0.02630	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.06440	<0.000200	0.00588	0.05160	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.14800	<0.000200	0.00597	0.04850	<0.00500	<0.00500	<0.00500	<0.00590
<0.0023	<0.0053	<0.014	<0.00024	0.00660 J	<0.000049	0.00270 J	<0.00490	<0.00740	<0.00280	0.0018 J	<0.00590
<0.000260	0.000922 J	<0.0141	<0.00024	0.00315 J	<0.000049	0.00248 J	0.00109 J	0.00177 J	<0.00031	0.00203 J	<0.00256
<0.00500	<0.00500	<0.200	<0.00500	0.03800	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.04670	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00854
<0.00500	<0.00500	<0.200	<0.00500	0.00933	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00526
<0.00500	<0.00500	<0.200	<0.00500	0.00771	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00764
<0.00500	<0.00500	<0.200	<0.00500	0.01820	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00801
<0.00500	<0.00500	0.655	<0.00500	0.00656	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.02700	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.18600	<0.000200	<0.00500	0.01560	<0.00500	<0.00500	<0.00500	0.00581
<0.00500	<0.00500	<0.200	<0.00500	0.00804	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00680
<0.0023	<0.0053	<0.014	0.00042 J	<0.00120	<0.000049	0.00250 J	<0.00490	<0.00740	<0.00280	0.00180 J	0.00680 J
<0.000260	<0.000520	<0.0141	<0.00024	0.000376 J	<0.000049	0.00240 J	<0.000350	0.00289	<0.00031	0.00173 J	<0.00256
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00134	0.00920
<0.00500	0.00856	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.0161	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.06950
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01780
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00873
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	0.00537	<0.00500	<0.00500	<0.00500	0.01190
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00315
<0.00100	0.00108	0.0180	<0.00100	<0.00100	<0.000200	0.00346	<0.00100	0.00359	<0.00100	0.00179	0.01500
<0.0023	0.012 J	<0.014	0.00062 J	<0.00120	<0.000049	0.00320 J	<0.00490	0.00970 J	<0.00280	0.00160 J	0.01700 J
<0.0023	0.015 J	<0.014	0.00074 J	<0.00120	<0.000049	0.00420 J	<0.00490	0.00330	<0.00280	0.00180 J	0.01700 J
<0.000260	0.00121 J	<0.0141	<0.00024	0.000878 J	<0.000049	0.00306 J	<0.00035	0.00332	<0.00031	0.00156 J	<0.00256
<0.000260	0.00216 J	0.0158 J	<0.00024	0.000476 J	<0.000049	<0.00160	0.000388 J	0.00342	<0.00031	0.00160 J	0.00427 J

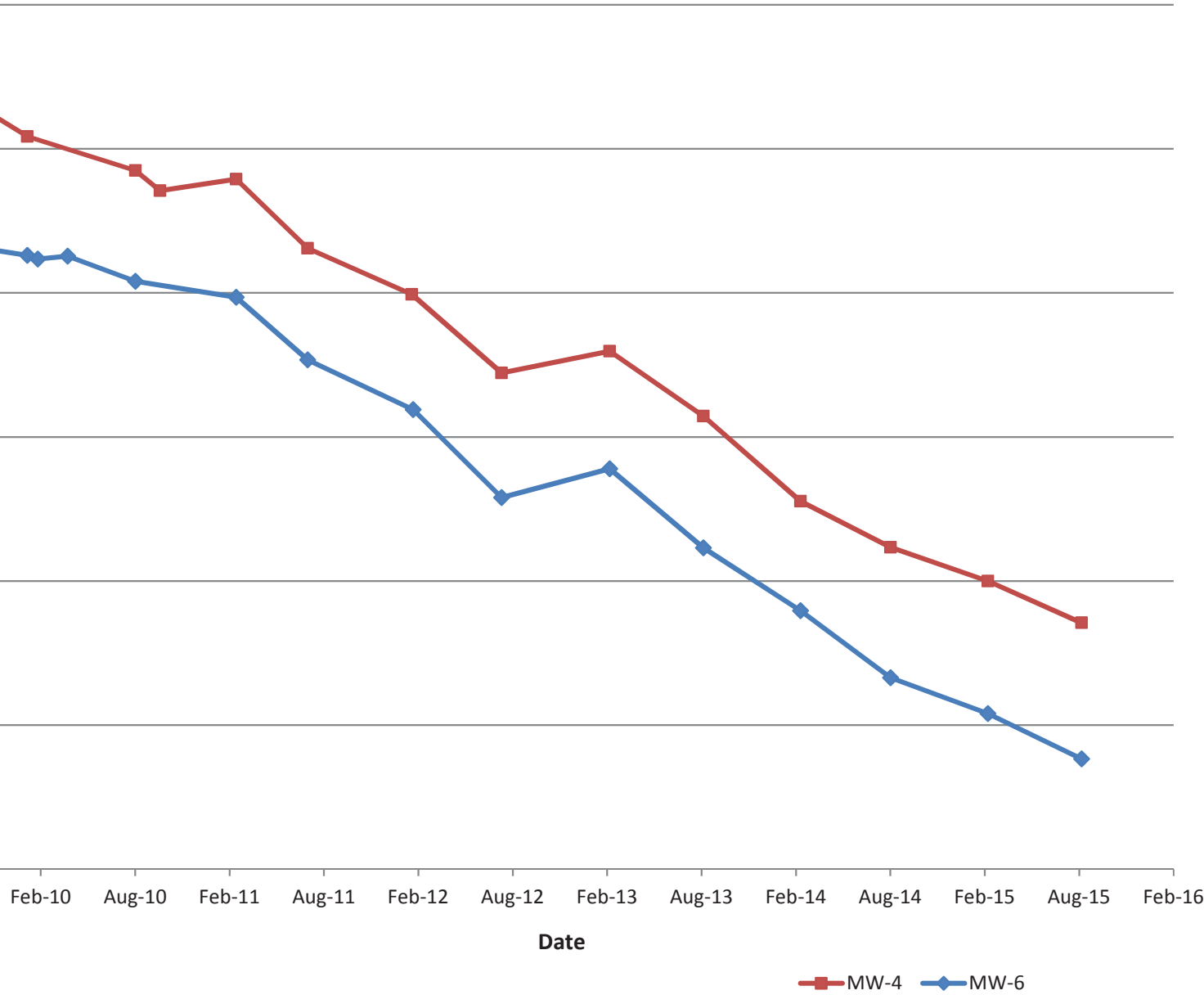
lyFrontier Navajo Refining LLC, AP-110, Lovington, New Mexico

Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.05	1.0	1.0	0.05	0.20	0.002	1.0	0.2	0.05	0.05	0.03	10.0
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	0.02240	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00236	0.02070
<0.00500	<0.00500	<0.200	<0.00500	0.00576	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03290
<0.00500	<0.00500	<0.200	<0.00500	0.02260	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00777
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.04010
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01720
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01550
<0.00500	<0.00500	<0.200	<0.00500	0.00571	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01590
<0.00500	<0.00500	<0.200	<0.00500	0.00670	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.02140
<0.00500	<0.00500	<0.200	<0.00500	0.01030	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01630
<0.00100	0.00128	0.0277	<0.00100	0.00422	<0.000200	0.00242	<0.00100	0.00387	<0.00100	0.00227	0.01510
<0.00100	0.00136	0.0226	<0.00100	0.00409	<0.000200	0.00203	<0.00100	0.00359	<0.00100	0.00217	0.04900
<0.0023	0.032	<0.014	0.00310	0.00460 J	<0.000049	0.00200 J	<0.00490	0.01200 J	<0.00280	0.00210 J	0.04900 J
<0.0023	0.019 J	<0.014	0.00260	0.00300 J	<0.000049	0.00210 J	<0.00490	0.01500 J	<0.00280	0.00210 J	0.02500 J
<0.0023	<0.0053	<0.014	<0.00024	0.00880 J	<0.000049	0.00220 J	<0.00490	<0.0028	<0.00280	0.00210 J	<0.00590
<0.0023	<0.0053	<0.014	<0.00024	0.00810 J	<0.000049	0.00230 J	<0.00490	0.00320	<0.00280	0.00210 J	<0.00590
<0.00230	<0.00530	0.0168 J	0.000477 J	0.00776 J	<0.000049	0.00204 J	<0.00490	0.00360	<0.00280	0.00214 J	0.00662 J
<0.000260	0.00376 J	<0.0141	<0.000240	0.00654	0.0000599 J	0.00199 J	<0.000350	<0.00328	<0.00031	0.00205 J	0.00638 J
<0.000260	0.00257 J	<0.0141	<0.000240	0.00564	<0.000049	<0.00160	0.000645 J	0.00334	<0.00031	0.00238 J	0.00388 J
<0.000260	0.00250 J	<0.0141	<0.000240	0.00546	<0.000049	<0.00160	0.000442 J	0.00343	<0.00031	0.00238 J	0.00430 J
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.02910
<0.00500	0.00953	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00111	0.01460
<0.00500	0.00745	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03470
<0.00500	<0.00500	<0.200	0.00662	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00936
<0.00500	<0.00500	<0.200	0.01160	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.09370
<0.00500	<0.00500	<0.200	0.00988	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01660
<0.00500	0.00774	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01660
<0.00500	<0.00500	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.03170
<0.00500	<0.00500	<0.200	<0.00500	0.008120	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.01560
<0.00100	<0.00100	0.143	<0.00100	0.004300	<0.00020	0.00241	<0.00100	0.00395	<0.00100	0.00181	0.01470
<0.0023	0.06800	<0.014	0.00120 J	0.00210 J	<0.000049	0.00230 J	<0.00490	0.01000 J	<0.00280	0.00180 J	0.08600
<0.0023	<0.00530	<0.014	<0.00024	0.00160 J	<0.000049	0.00280 J	<0.00490	0.00370	<0.00280	0.00190 J	0.01300 J
<0.00230	<0.00530	0.0248 J	0.000241 J	0.012900	<0.000049	0.00236 J	<0.00490	0.00388	<0.00280	0.00174 J	0.02840 J
<0.00260	0.00143 J	<0.0141	<0.00024	0.00217 J	<0.000049	<0.00160	0.000365	0.00387	<0.00031	0.00188 J	0.01010 J

APPENDIX A

PLOT OF GROUNDWATER ELEVATIONS OVER TIME

APPENDIX A - GROUNDWATER ELEVATIONS OVER TIME
HollyFrontier Navajo Refining LLC
AP-110, Lovington, New Mexico



APPENDIX B

LABORATORY ANALYTICAL REPORTS

(COMPACT DISC)

Quality Control Summary SDG: L751256

**For: TRC Solutions - Austin, TX
Lovington Lea Refinery**

L751256

Lab SampleID.

Client ID

L751256-01
L751256-02
L751256-03
L751256-04
L751256-05
L751256-06
L751256-07
L751256-08
L751256-09
L751256-10
L751256-11
L751256-12
L751256-13
L751256-14
L751256-15
L751256-16
L751256-17
L751256-18
L751256-19
L751256-20

MW-10
MW-3
DUP-1
AC-2-26-15
MW-11
MW-27
MW-13
MW-14
EB-2-27-15-A
EB-2-27-15-B
MW-28
AC-2-23-14
MW-15
MW-16
MW-4
MW-2
AC-2-24-15
MW-12R
MW-20
MW-5

Quality Control Summary SDG: L751256

**For: TRC Solutions - Austin, TX
Lovington Lea Refinery**

L751256

Lab SampleID.

Client ID

L751256-21
L751256-22
L751256-23
L751256-24
L751256-25
L751256-26
L751256-27
L751256-28
L751256-29
L751256-30
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L751256-35
L751256-36
L751256-37
L751256-38
L751256-39
L751256-40

MW-21
MW-22
MW-30
MW-7
RW-1
MW-1
MW-6
MW-9
MW-29
MW-23
MW-24
MW-25
DUP-3
MW-26
AC-2-25-15
MW-19
DUP-2
MW-18
MW-8
MW-17R

Quality Control Summary SDG: L751256

**For: TRC Solutions - Austin, TX
Lovington Lea Refinery**

L751256

Lab SampleID.

L751256-41
L751256-42
L751256-43

Client ID

AC-2-27-15
TRIP BLANK-1
TRIP BLANK-2

Appendix A: Laboratory Data Package Cover Page

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

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - Items consistent with NELAC Chapter 5,
 - dilution factors,
 - preparation methods,
 - cleanup methods, and
 - if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - Calculated recovery (%R), and
 - 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:
 - LCS spiking amounts,
 - Calculated %R for each analyte, and
 - The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - Samples associated with the MS/MSD clearly identified,
 - MS/MSD spiking amounts,
 - Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - Calculated %Rs and relative percent differences (RPDs), and
 - The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - The amount of analyte measured in the duplicate,
 - The calculated RPD, and
 - 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.
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.

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, 17				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773341 8270TCL				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, and -03				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773341 8270TCL				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-11, -13, -14, -15, -16, -18, -19, -20, -21, and -22				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773477 TDS				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-11, -13, -14, -15, -16, -18, -19, -20, -21, and -22				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773477 TDS				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			✓		
		Were percent RSDs or correlation coefficient criteria met?			✓		
		Was the number of standards recommended in the method used for all analytes?			✓		
		Were all points generated between the lowest and highest standard used to calculate the curve?			✓		
		Are ICAL data available for all instruments used?			✓		
		Has the initial calibration curve been verified using an appropriate second source standard?			✓		
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?			✓		
		Were percent differences for each analyte within the method-required QC limits?			✓		
		Was the ICAL curve verified for each analyte?			✓		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773477 TDS

Sample(s): MW-28, MW-15, MW-16, MW-4, MW-2, MW-12R, MW-20, MW-5, MW-21, MW-22

Samples(s) were analyzed for Total Dissolved Solids by Method 2540 C-2011

ER#:	Description
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1	The method specified holding times were exceeded for samples L751256-11.
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, and -09				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773482 PH				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, and -09				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773482 PH				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773482 PH

Sample(s): MW-10, MW-3, DUP-1, MW-27, MW-13, EB-2-27-15-A

Samples(s) were analyzed for pH by Method 9040C

ER#:	Description
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- | | |
|----------|--|
| 1 | The method specified holding times were exceeded for samples L751256-01, L751256-02, L751256-03, L751256-06, L751256-07, and L751256-09. |
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-23, -24, -25, -26, -27, -28, -29, -30, -31, and -32				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773484 TDS				


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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-23, -24, -25, -26, -27, -28, -29, -30, -31, and -32				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773484 TDS				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			✓		
		Were percent RSDs or correlation coefficient criteria met?			✓		
		Was the number of standards recommended in the method used for all analytes?			✓		
		Were all points generated between the lowest and highest standard used to calculate the curve?			✓		
		Are ICAL data available for all instruments used?			✓		
		Has the initial calibration curve been verified using an appropriate second source standard?			✓		
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?			✓		
		Were percent differences for each analyte within the method-required QC limits?			✓		
		Was the ICAL curve verified for each analyte?			✓		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773485 PH				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773485 PH				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773485 PH

Sample(s): EB-2-27-15-B, MW-28, MW-15, MW-16, MW-4, MW-2, MW-12R, MW-20, MW-5,
MW-21, MW-22, MW-30, MW-7, RW-1, MW-1, MW-6, MW-9, MW-29, MW-23, MW-24

Samples(s) were analyzed for pH by Method 9040C

ER#: **Description**

-
- 1 The method specified holding times were exceeded for samples L751256-10, L751256-11, L751256-13, L751256-14, L751256-15, L751256-16, L751256-18, L751256-19, L751256-20, L751256-21, L751256-22, L751256-23, L751256-24, L751256-25, L751256-26, L751256-27, L751256-28, L751256-29, L751256-30, and L751256-31.
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -33, -34, and -36				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773487 TDS				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -33, -34, and -36				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773487 TDS				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			✓		
		Were percent RSDs or correlation coefficient criteria met?			✓		
		Was the number of standards recommended in the method used for all analytes?			✓		
		Were all points generated between the lowest and highest standard used to calculate the curve?			✓		
		Are ICAL data available for all instruments used?			✓		
		Has the initial calibration curve been verified using an appropriate second source standard?			✓		
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?			✓		
		Were percent differences for each analyte within the method-required QC limits?			✓		
		Was the ICAL curve verified for each analyte?			✓		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773490 TDS				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773490 TDS				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			✓		
		Were percent RSDs or correlation coefficient criteria met?			✓		
		Was the number of standards recommended in the method used for all analytes?			✓		
		Were all points generated between the lowest and highest standard used to calculate the curve?			✓		
		Are ICAL data available for all instruments used?			✓		
		Has the initial calibration curve been verified using an appropriate second source standard?			✓		
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?			✓		
		Were percent differences for each analyte within the method-required QC limits?			✓		
		Was the ICAL curve verified for each analyte?			✓		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, 1				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773500 ALK				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, and -21				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773500 ALK				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773500 ALK

Sample(s): MW-10, MW-3, DUP-1, MW-27, MW-13, EB-2-27-15-A, EB-2-27-15-B, MW-28,
MW-15, MW-16, MW-4, MW-2, MW-12R, MW-20, MW-5, MW-21

Samples(s) were analyzed for Alkalinity by Method 2320 B-2011

ER#:	Description
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1	The matrix spike or matrix spike duplicate recoveries were below the laboratory control limits for Alkalinity.
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, 1				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773521 FLUORIDE				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773521 FLUORIDE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, and -30				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773522 SULFATE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	✓				
		Were analytical duplicates analyzed at the appropriate frequency?	✓				
		Were RPDs or relative standard deviations within the laboratory QC limits?		✓			1
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, and -30				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773522 SULFATE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports


Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773522 SULFATE

Sample(s): MW-1, MW-6, MW-9, MW-29, MW-23
Samples(s) were analyzed for Anions by Method 9056

ER#:	Description
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1	The relative percent differences exceeded laboratory limits for Fluoride
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data


Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773528 8270TX				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	✓				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			✓		
		Were MS/MSD analyzed at the appropriate frequency?			✓		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		
		Were MS/MSD RPDs within laboratory QC limits?			✓		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773528 8270TX				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773564 V8260				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773564 V8260				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773564 V8260

Sample(s): MW-10, MW-3, DUP-1, AC-2-26-15, MW-11, MW-27, MW-13, MW-14,

EB-2-27-15-A, EB-2-27-15-B, MW-28, AC-2-23-14, MW-15, MW-16, MW-4, MW-2, AC-2-24-15, MW-12R, MW-20,

Samples(s) were analyzed for Volatile Organic Compounds by Method 8260B

ER#: **Description**

1 The laboratory control sample or laboratory control sample duplicate recoveries were outside the laboratory control limits for Chloroethane

2 The matrix spike or matrix spike duplicate recoveries were over the laboratory control limits for Chloroethane.

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31,				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773566 V8260				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773566 V8260				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773634 PH				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773634 PH				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773634 PH


Sample(s): MW-25, DUP-3, MW-26, MW-19, DUP-2, MW-18, MW-8, MW-17R

Samples(s) were analyzed for pH by Method 9040C

ER#:	Description
-------------	--------------------

- | | |
|----------|--|
| 1 | The method specified holding times were exceeded for samples L751256-32, L751256-33, L751256-34, L751256-36, L751256-37, L751256-38, L751256-39, and L751256-40. |
|----------|--|

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data


Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773711 NADICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773711 NADICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773713 NADICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?		✓			1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773713 NADICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773713 NADICP


Sample(s): RW-1, MW-1, MW-6, MW-9, MW-29, MW-23, MW-24, MW-25, DUP-3, MW-26,
MW-19, DUP-2, MW-18, MW-8, MW-17R

Samples(s) were analyzed for Trace Metals by Method 6010B

ER#:	Description
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1	The method blank contained target analytes above the MDL but below the RDL
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773759 SPCON				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, and -21				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773759 SPCON				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-41				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773789 V8260				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	✓				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		✓			1
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?		✓			3
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		✓			2
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-41				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773789 V8260				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG773789 V8260


Sample(s): AC-2-27-15

Samples(s) were analyzed for Volatile Organic Compounds by Method 8260B

ER#:	Description
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- | | |
|----------|---|
| 1 | The laboratory control sample or laboratory control sample duplicate recoveries were outside the laboratory control limits for 1,1-Dichloroethane and 1,2-Dichloroethane |
| 2 | The matrix spike or matrix spike duplicate recoveries were over the laboratory control limits for 1,2-Dichloroethane, 1,2-Dichloropropane, 2-Butanone (MEK), Acetone, and Bromodichloromethane. |
| 3 | The relative percent differences exceeded laboratory limits for 2-Butanone (MEK) |

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773842 ASDG				


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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773842 ASDG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773848 HG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?			✓		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -24, -21, -22				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773848 HG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37,				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773849 HG				


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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773849 HG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data


Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773850 HGD				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?			✓		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773850 HGD				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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.
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773851 HGD				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?			✓		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773851 HGD				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-22, -23, -24, and -25				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773873 ALK				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-22, -23, -24, and -25				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773873 ALK				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34,				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773908 SBDG				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG773908 SBDG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774030 FLUORIDE				


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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774030 FLUORIDE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774082 NO2NO3				


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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, +				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774082 NO2NO3				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data


Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774083 NO2NO3				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	✓				
		Were analytical duplicates analyzed at the appropriate frequency?	✓				
		Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774083 NO2NO3				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774086 SPCON				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			✓		
		Were MS/MSD analyzed at the appropriate frequency?			✓		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		
		Were MS/MSD RPDs within laboratory QC limits?			✓		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	✓				
		Were analytical duplicates analyzed at the appropriate frequency?	✓				
		Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, a				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774086 SPCON				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-42 and 43				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774378 V8260				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-42 and 43				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774378 V8260				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG774378 V8260

Sample(s): TRIP BLANK-1, TRIP BLANK-2


Samples(s) were analyzed for Volatile Organic Compounds by Method 8260B

ER#:	Description
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1	The matrix spike or matrix spike duplicate recoveries were over the laboratory control limits for 1,2-Dichloroethane and Acetone. The matrix spike or matrix spike duplicate recoveries were below the laboratory control limits for Styrene and Trichloroethene.
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2	The relative percent differences exceeded laboratory limits for Styrene
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, 				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774414 ALK				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		✓			1
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	✓				
		Were analytical duplicates analyzed at the appropriate frequency?	✓				
		Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, and -40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774414 ALK				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG774414 ALK

Sample(s): MW-1, MW-6, MW-9, MW-29, MW-23, MW-24, MW-25, DUP-3, MW-26, MW-19,
DUP-2, MW-18, MW-8, MW-17R

Samples(s) were analyzed for Alkalinity by Method 2320 B-2011

ER#:	Description
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1	The matrix spike or matrix spike duplicate recoveries were below the laboratory control limits for Alkalinity.
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-07, -29, -30, -32, -33, -34, -36, -38, and -39				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774478 CHLORIDE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?			✓		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			✓		
		Were MS/MSD analyzed at the appropriate frequency?			✓		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		
		Were MS/MSD RPDs within laboratory QC limits?			✓		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	✓				
		Were analytical duplicates analyzed at the appropriate frequency?	✓				
		Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-07, -29, -30, -32, -33, -34, -36, -38, and -39				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG774478 CHLORIDE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-37 and 40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775081 CHLORIDE				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/17/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L751256-37 and 40				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775081 CHLORIDE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/17/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L751256
Reviewer Name: ESC Representative	Prep Batch Numbers: WG775081 CHLORIDE

Sample(s): DUP-2, MW-17R

Samples(s) were analyzed for Anions by Method 9056

ER#:	Description
-------------	--------------------

1	The matrix spike or matrix spike duplicate recoveries were below the laboratory control limits for Chloride.
----------	--



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John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Report Summary

Friday April 17, 2015

Report Number: L751256

Samples Received: 03/03/15

Client Project: 227000

Description: Lovington Lea Refinery

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Pam Langford , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-10

Collected By : John Allen
Collection Date : 02/26/15 14:55

ESC Sample # : L751256-01

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	120	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	0.71	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	68.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	180	2.6	20.	mg/l	J6	2320 B-	03/04/15	1
pH	7.7	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.1	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	900	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	540	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0043	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	0.00030	0.00024	0.0020	mg/l	J	6020	03/06/15	1
Molybdenum,Dissolved	0.0026	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0019	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/05/15	1
Barium,Dissolved	0.12	0.0017	0.0050	mg/l		6010B	03/05/15	1
Boron,Dissolved	0.17	0.013	0.20	mg/l	J	6010B	03/05/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/05/15	1
Calcium,Dissolved	120	0.046	1.0	mg/l		6010B	03/05/15	1
Chromium,Dissolved	0.0016	0.0014	0.010	mg/l	J	6010B	03/05/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/05/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/05/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/05/15	1
Magnesium,Dissolved	13.	0.011	1.0	mg/l		6010B	03/05/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/05/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/05/15	1
Potassium,Dissolved	2.4	0.10	1.0	mg/l		6010B	03/05/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/05/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/05/15	1
Sodium,Dissolved	44.	0.098	1.0	mg/l		6010B	03/05/15	1
Zinc,Dissolved	0.0060	0.0059	0.050	mg/l	J	6010B	03/05/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:26
L751256-01 (PH) - 7.7@20.4c



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-01

Sample ID : MW-10

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 14:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4J5	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

Note:

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-10

Collected By : John Allen
Collection Date : 02/26/15 14:55

ESC Sample # : L751256-01

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	102.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	91.7			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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L751256-01 (PH) - 7.7@20.4c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-01

Sample ID : MW-10

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 14:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.00098	0.00071	0.0030	mg/l	J	8270 C	03/04/15	1
Di-n-butyl phthalate	0.00083	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	42.7			% Rec.		8270 C	03/04/15	1
Phenol-d5	31.3			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	48.4			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	69.0			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	70.4			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	67.7			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-02

Sample ID : MW-3

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:45

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	31.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.5	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	74.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	190	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	8.0	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	1.9	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	650	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	420	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.019	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.00094	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.00057	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/05/15	1
Barium,Dissolved	0.061	0.0017	0.0050	mg/l		6010B	03/05/15	1
Boron,Dissolved	0.16	0.013	0.20	mg/l	J	6010B	03/05/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/05/15	1
Calcium,Dissolved	25.	0.046	1.0	mg/l		6010B	03/05/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/05/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/05/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/05/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/05/15	1
Magnesium,Dissolved	2.5	0.011	1.0	mg/l		6010B	03/05/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/05/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/05/15	1
Potassium,Dissolved	2.0	0.10	1.0	mg/l		6010B	03/05/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/05/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/05/15	1
Sodium,Dissolved	120	0.098	1.0	mg/l		6010B	03/05/15	1
Zinc,Dissolved	U	0.0059	0.050	mg/l		6010B	03/05/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-02

Sample ID : MW-3

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:45

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-3

Collected By : John Allen
Collection Date : 02/26/15 16:45

ESC Sample # : L751256-02

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	103.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.8			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-02

Sample ID : MW-3

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:45

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.0072	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00086	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	39.7			% Rec.		8270 C	03/04/15	1
Phenol-d5	30.4			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	49.1			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	72.6			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	73.4			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	71.3			% Rec.		8270 C	03/04/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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L751256-02 (PH) - 8.0@20.5c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : DUP-1

Collected By : John Allen
Collection Date : 02/26/15 16:55

ESC Sample # : L751256-03

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	32.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.6	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	74.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	190	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	8.0	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.0	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	660	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	420	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.020	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0011	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.00056	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/05/15	1
Barium,Dissolved	0.062	0.0017	0.0050	mg/l		6010B	03/05/15	1
Boron,Dissolved	0.16	0.013	0.20	mg/l	J	6010B	03/05/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/05/15	1
Calcium,Dissolved	26.	0.046	1.0	mg/l		6010B	03/05/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/05/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/05/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/05/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/05/15	1
Magnesium,Dissolved	2.5	0.011	1.0	mg/l		6010B	03/05/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/05/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/05/15	1
Potassium,Dissolved	2.0	0.10	1.0	mg/l		6010B	03/05/15	1
Selenium,Dissolved	0.0085	0.0074	0.020	mg/l	J	6010B	03/05/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/05/15	1
Sodium,Dissolved	120	0.098	1.0	mg/l		6010B	03/05/15	1
Zinc,Dissolved	0.0088	0.0059	0.050	mg/l	J	6010B	03/05/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-03

Sample ID : DUP-1

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-03

Sample ID : DUP-1

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	103.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.1			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/09/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/09/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/09/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/09/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/09/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/09/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/09/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/09/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/09/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/09/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/09/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/09/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/09/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/09/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/09/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/09/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/09/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/09/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/09/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/09/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/09/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/09/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/09/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/09/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/09/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/09/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/09/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/09/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/09/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/09/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/09/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/09/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/09/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-03

Sample ID : DUP-1

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/09/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/09/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/09/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/09/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/09/15	1
Bis(2-ethylhexyl)phthalate	0.0034	0.00071	0.0030	mg/l		8270 C	03/09/15	1
Di-n-butyl phthalate	0.00058	0.00027	0.0030	mg/l	J	8270 C	03/09/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/09/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/09/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/09/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/09/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/09/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/09/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/09/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/09/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/09/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/09/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/09/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/09/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/09/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/09/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/09/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/09/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/09/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/09/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/09/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/09/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/09/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/09/15	1
Surrogate Recovery								
2-Fluorophenol	43.5			% Rec.		8270 C	03/09/15	1
Phenol-d5	32.2			% Rec.		8270 C	03/09/15	1
Nitrobenzene-d5	55.6			% Rec.		8270 C	03/09/15	1
2-Fluorobiphenyl	78.4			% Rec.		8270 C	03/09/15	1
2,4,6-Tribromophenol	70.7			% Rec.		8270 C	03/09/15	1
p-Terphenyl-d14	74.2			% Rec.		8270 C	03/09/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:26
L751256-03 (PH) - 8.0@20.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-04

Sample ID : AC-2-26-15

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 17:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery
Sample ID : AC-2-26-15
Collected By : John Allen
Collection Date : 02/26/15 17:30

ESC Sample # : L751256-04

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.2			% Rec.		8260B	03/09/15	1

U = ND (Not Detected)

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-05

Sample ID : MW-11

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 08:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	0.0026	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	0.0019	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	0.00067	0.00040	0.0010	mg/l	J	8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	0.00099	0.00038	0.0010	mg/l	J	8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	0.00040	0.00033	0.0010	mg/l	J	8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	0.12	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-11

Collected By : John Allen
Collection Date : 02/27/15 08:30

ESC Sample # : L751256-05

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	0.0014	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	0.0036	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	103.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.8			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	0.00055	0.00021	0.010	mg/l	J	8270 C	03/04/15	1
Bis(2-chloroethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-05

Sample ID : MW-11

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 08:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.17	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00071	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	0.00047	0.00028	0.0030	mg/l	J	8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	0.0010	0.00033	0.010	mg/l	J	8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	37.5			% Rec.		8270 C	03/04/15	1
Phenol-d5	31.1			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	58.2			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	82.9			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	103.			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	75.2			% Rec.		8270 C	03/04/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-06

Sample ID : MW-27

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	170	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	1.0	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	96.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	300	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	3.8	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1300	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	790	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0033	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0029	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0098	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/05/15	1
Barium,Dissolved	0.084	0.0017	0.0050	mg/l		6010B	03/05/15	1
Boron,Dissolved	0.30	0.013	0.20	mg/l		6010B	03/05/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/05/15	1
Calcium,Dissolved	100	0.046	1.0	mg/l		6010B	03/05/15	1
Chromium,Dissolved	0.0038	0.0014	0.010	mg/l	J	6010B	03/05/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/05/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/05/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/05/15	1
Magnesium,Dissolved	10.	0.011	1.0	mg/l		6010B	03/05/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/05/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/05/15	1
Potassium,Dissolved	3.4	0.10	1.0	mg/l		6010B	03/05/15	1
Selenium,Dissolved	0.0080	0.0074	0.020	mg/l	J	6010B	03/05/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/05/15	1
Sodium,Dissolved	170	0.098	1.0	mg/l		6010B	03/05/15	1
Zinc,Dissolved	U	0.0059	0.050	mg/l		6010B	03/05/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-06

Sample ID : MW-27

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-27

Collected By : John Allen
Collection Date : 02/27/15 09:00

ESC Sample # : L751256-06

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	103.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	91.8			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-06

Sample ID : MW-27

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00055	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	35.0			% Rec.		8270 C	03/04/15	1
Phenol-d5	24.9			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	42.2			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	66.3			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	67.3			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	68.5			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-07

Sample ID : MW-13

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 09:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	550	0.52	10.	mg/l		9056	03/10/15	10
Fluoride	0.38	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	59.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	390	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.0	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	0.056	0.020	0.10	mg/l	J	353.2	03/09/15	1
Specific Conductance	2500	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	1600	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0034	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0010	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.014	0.00033	0.010	mg/l		6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/07/15	1
Barium,Dissolved	0.23	0.0017	0.0050	mg/l		6010B	03/07/15	1
Boron,Dissolved	0.24	0.013	0.20	mg/l		6010B	03/07/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/07/15	1
Calcium,Dissolved	370	0.046	1.0	mg/l		6010B	03/07/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/07/15	1
Cobalt,Dissolved	0.0047	0.0023	0.010	mg/l	J	6010B	03/07/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/07/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	42.	0.011	1.0	mg/l		6010B	03/07/15	1
Manganese,Dissolved	0.82	0.0012	0.010	mg/l		6010B	03/07/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/07/15	1
Potassium,Dissolved	5.5	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/07/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	99.	0.098	1.0	mg/l		6010B	03/07/15	1
Zinc,Dissolved	0.019	0.0059	0.050	mg/l	J	6010B	03/07/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	0.00034	0.00033	0.0010	mg/l	J	8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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L751256-07 (PH) - 7.0@20.6c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-07

Sample ID : MW-13

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 09:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	0.0050	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	0.00042	0.00040	0.0010	mg/l	J	8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-13

Collected By : John Allen
Collection Date : 02/27/15 09:30

ESC Sample # : L751256-07

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.2			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	0.0051	0.00021	0.010	mg/l	J	8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	0.00021	0.00016	0.010	mg/l	J	8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	0.00096	0.00034	0.010	mg/l	J	8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-07

Sample ID : MW-13

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 09:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.0043	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00058	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	0.00035	0.00028	0.0030	mg/l	J	8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	36.5			% Rec.		8270 C	03/04/15	1
Phenol-d5	28.3			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	55.8			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	78.0			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	93.3			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	70.0			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-08

Sample ID : MW-14

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 10:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic, Dissolved	0.0023	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead, Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum, Dissolved	0.0040	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium, Dissolved	0.0047	0.00033	0.010	mg/l	J	6020	03/06/15	1
Aluminum, Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium, Dissolved	0.10	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron, Dissolved	0.20	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium, Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium, Dissolved	120	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium, Dissolved	0.0026	0.0014	0.010	mg/l	J	6010B	03/06/15	1
Cobalt, Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper, Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron, Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium, Dissolved	13.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese, Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel, Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium, Dissolved	3.3	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium, Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver, Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium, Dissolved	32.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc, Dissolved	0.0070	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-08

Sample ID : MW-14

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 10:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	105.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-08

Sample ID : MW-14

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 10:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.0017	0.00071	0.0030	mg/l	J	8270 C	03/04/15	1
Di-n-butyl phthalate	0.00070	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-14

Collected By : John Allen
Collection Date : 02/27/15 10:00

ESC Sample # : L751256-08

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	42.3			% Rec.		8270 C	03/04/15	1
Phenol-d5	31.6			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	51.4			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	75.3			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	71.1			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	68.1			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-09

Sample ID : EB-2-27-15-A

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	0.25	0.052	1.0	mg/l	J	9056	03/07/15	1
Fluoride	U	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	0.44	0.077	5.0	mg/l	J	9056	03/07/15	1
Alkalinity	U	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	6.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	0.026	0.020	0.10	mg/l	J	353.2	03/09/15	1
Specific Conductance	1.6	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	11.	2.8	10.	mg/l	T4	2540 C-	03/06/15	1
Antimony, Dissolved	U	0.00021	0.0020	mg/l		6020	03/06/15	1
Arsenic, Dissolved	U	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead, Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum, Dissolved	U	0.00014	0.0050	mg/l		6020	03/06/15	1
Thallium, Dissolved	U	0.00019	0.0020	mg/l		6020	03/06/15	1
Uranium, Dissolved	U	0.00033	0.010	mg/l		6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum, Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium, Dissolved	U	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron, Dissolved	U	0.013	0.20	mg/l		6010B	03/06/15	1
Cadmium, Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium, Dissolved	0.056	0.046	1.0	mg/l	J	6010B	03/06/15	1
Chromium, Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt, Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper, Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron, Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium, Dissolved	U	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese, Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel, Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium, Dissolved	U	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium, Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver, Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium, Dissolved	U	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc, Dissolved	U	0.0059	0.050	mg/l		6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1

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L751256-09 (PH) - 6.5@22.4c



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-09

Sample ID : EB-2-27-15-A

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-09

Sample ID : EB-2-27-15-A

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.2			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:27

L751256-09 (PH) - 6.5@22.4c



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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-09

Sample ID : EB-2-27-15-A

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	41.1			% Rec.		8270 C	03/06/15	1
Phenol-d5	28.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	62.6			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	84.1			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	74.7			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	70.2			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : EB-2-27-15-B

Collected By : John Allen
Collection Date : 02/27/15 11:30

ESC Sample # : L751256-10

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	0.26	0.052	1.0	mg/l	J	9056	03/07/15	1
Fluoride	U	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	0.53	0.077	5.0	mg/l	J	9056	03/07/15	1
Alkalinity	U	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	5.2	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	0.025	0.020	0.10	mg/l	J	353.2	03/09/15	1
Specific Conductance	1.8	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	10.	2.8	10.	mg/l	JT4	2540 C-	03/06/15	1
Arsenic,Dissolved	U	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	U	0.00014	0.0050	mg/l		6020	03/06/15	1
Uranium,Dissolved	U	0.00033	0.010	mg/l		6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium,Dissolved	U	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	U	0.013	0.20	mg/l		6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	U	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	U	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	U	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	U	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.0096	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	0.015	0.010	1.0	mg/l	J	8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-10

Sample ID : EB-2-27-15-B

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-10

Sample ID : EB-2-27-15-B

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	91.9			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-10

Sample ID : EB-2-27-15-B

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 11:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.00082	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	37.4			% Rec.		8270 C	03/06/15	1
Phenol-d5	26.7			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	66.2			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	90.8			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	69.8			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	76.2			% Rec.		8270 C	03/06/15	1

U = ND (Not Detected)

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L751256-10 (PH) - 5.2@21.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-11

Sample ID : MW-28

Site ID :

Collected By : John Allen
Collection Date : 02/23/15 17:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	70.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.6	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	72.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	190	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.3	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.8	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	770	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	500	2.8	10.	mg/l	T8	2540 C-	03/04/15	1
Arsenic,Dissolved	0.0040	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0018	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0025	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium,Dissolved	0.090	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.17	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	100	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	0.0055	0.0053	0.020	mg/l	J	6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	12.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.1	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	42.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.017	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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L751256-11 (PH) - 7.3@21.8c



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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-11

Sample ID : MW-28

Site ID :

Collected By : John Allen
Collection Date : 02/23/15 17:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-28

Collected By : John Allen
Collection Date : 02/23/15 17:35

ESC Sample # : L751256-11

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	105.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	94.8			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-11

Sample ID : MW-28

Site ID :

Collected By : John Allen
Collection Date : 02/23/15 17:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.0015	0.00071	0.0030	mg/l	J	8270 C	03/04/15	1
Di-n-butyl phthalate	0.00059	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	0.00033	0.00033	0.010	mg/l	J	8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	32.8			% Rec.		8270 C	03/04/15	1
Phenol-d5	27.6			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	43.0			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	66.8			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	81.0			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	69.3			% Rec.		8270 C	03/04/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:27
L751256-11 (PH) - 7.3@21.8c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-12

Sample ID : AC-2-23-14

Site ID :

Collected By : John Allen
Collection Date : 02/23/15 18:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : AC-2-23-14

Collected By : John Allen
Collection Date : 02/23/15 18:20

ESC Sample # : L751256-12

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.7			% Rec.		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-13

Sample ID : MW-15

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 13:40

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	150	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	0.90	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	94.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	180	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.4	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	8.4	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1100	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	650	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0040	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0024	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0021	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.052	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.15	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.17	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	110	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	0.0034	0.0014	0.010	mg/l	J	6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	14.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	3.2	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	98.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.012	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	0.0023	0.00038	0.0013	mg/l		8260B	03/09/15	1

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L751256-13 (PH) - 7.4@21.3c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-13

Sample ID : MW-15

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 13:40

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	0.0081	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-15

Collected By : John Allen
Collection Date : 02/24/15 13:40

ESC Sample # : L751256-13

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	95.4			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-13

Sample ID : MW-15

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 13:40

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.0016	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	42.7			% Rec.		8270 C	03/04/15	1
Phenol-d5	33.3			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	58.9			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	80.7			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	85.5			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	74.0			% Rec.		8270 C	03/04/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-16

Collected By : John Allen
Collection Date : 02/24/15 15:00

ESC Sample # : L751256-14

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	20.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.0	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	61.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	180	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	1.9	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	570	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	360	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0051	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0035	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0016	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.042	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.098	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.17	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	76.	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	8.2	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	0.0042	0.0012	0.010	mg/l	J	6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.0	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	36.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.014	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-14

Sample ID : MW-16

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 15:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-14

Sample ID : MW-16

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 15:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	94.2			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-14

Sample ID : MW-16

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 15:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00032	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	35.6			% Rec.		8270 C	03/04/15	1
Phenol-d5	27.4			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	49.5			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	69.5			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	70.5			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	61.3			% Rec.		8270 C	03/04/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-4

Collected By : John Allen
Collection Date : 02/24/15 16:25

ESC Sample # : L751256-15

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	24.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.1	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	66.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	180	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.1	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	580	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	390	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0046	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	0.00025	0.00024	0.0020	mg/l	J	6020	03/06/15	1
Molybdenum,Dissolved	0.0034	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0016	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	0.00011	0.000049	0.00020	mg/l	J	7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium,Dissolved	0.090	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.15	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	75.	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	8.6	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.3	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	36.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	U	0.0059	0.050	mg/l		6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:27
L751256-15 (PH) - 7.5@21.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-15

Sample ID : MW-4

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 16:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-4

Collected By : John Allen
Collection Date : 02/24/15 16:25

ESC Sample # : L751256-15

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	105.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	94.7			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-15

Sample ID : MW-4

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 16:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.013	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00078	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	35.6			% Rec.		8270 C	03/04/15	1
Phenol-d5	27.6			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	47.6			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	70.5			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	75.7			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	63.6			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-2

Collected By : John Allen
Collection Date : 02/24/15 17:30

ESC Sample # : L751256-16

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	130	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	0.92	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	94.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	210	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.4	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	7.9	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1100	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	710	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0037	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0034	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0026	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium,Dissolved	0.090	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.21	0.013	0.20	mg/l		6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	120	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	13.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.5	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	89.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	U	0.0059	0.050	mg/l		6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:27
L751256-16 (PH) - 7.4@21.5c



12065 Lebanon Rd.
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(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-16

Sample ID : MW-2

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 17:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	0.00084	0.00032	0.0050	mg/l	J	8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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L751256-16 (PH) - 7.4@21.5c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-2

Collected By : John Allen
Collection Date : 02/24/15 17:30

ESC Sample # : L751256-16

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	105.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	95.6			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-16

Sample ID : MW-2

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 17:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.0012	0.00071	0.0030	mg/l	J	8270 C	03/04/15	1
Di-n-butyl phthalate	0.00053	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	41.1			% Rec.		8270 C	03/04/15	1
Phenol-d5	31.5			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	50.9			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	73.3			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	76.2			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	68.0			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-17

Sample ID : AC-2-24-15

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 18:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery
Sample ID : AC-2-24-15
Collected By : John Allen
Collection Date : 02/24/15 18:30

ESC Sample # : L751256-17

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	106.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	91.5			% Rec.		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-18

Sample ID : MW-12R

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 09:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	29.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.1	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	63.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	200	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.6	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	7.0	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	640	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	500	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0038	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0042	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0019	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.037	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.095	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.20	0.013	0.20	mg/l		6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	76.	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	7.4	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.3	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	51.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.0081	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-18

Sample ID : MW-12R

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 09:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-18

Sample ID : MW-12R

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 09:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	107.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	92.5			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-18

Sample ID : MW-12R

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 09:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00077	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	37.1			% Rec.		8270 C	03/04/15	1
Phenol-d5	27.6			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	40.7			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	60.7			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	61.0			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	60.8			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-19

Sample ID : MW-20

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 11:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	120	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	0.65	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	56.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	180	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.6	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	910	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	690	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0031	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0024	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0026	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.038	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.11	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.17	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	120	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	0.0020	0.0014	0.010	mg/l	J	6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	13.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.2	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	42.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.023	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:27
L751256-19 (PH) - 7.5@21.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-19

Sample ID : MW-20

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 11:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-19

Sample ID : MW-20

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 11:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	104.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	93.5			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-19

Sample ID : MW-20

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 11:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00039	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	45.0			% Rec.		8270 C	03/04/15	1
Phenol-d5	34.7			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	55.0			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	75.9			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	81.1			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	69.8			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-20

Sample ID : MW-5

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 13:10

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	21.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.4	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	43.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	310	2.6	20.	mg/l		2320 B-	03/04/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.2	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	740	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	520	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0029	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0045	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0040	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.038	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.12	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.091	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	74.	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	8.0	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	3.0	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	86.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.0089	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-20

Sample ID : MW-5

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 13:10

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l	J4	8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:28

L751256-20 (PH) - 7.5@21.3c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-5

Collected By : John Allen
Collection Date : 02/24/15 13:10

ESC Sample # : L751256-20

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	105.			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	92.1			% Rec.		8260B	03/09/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-20

Sample ID : MW-5

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 13:10

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	0.0054	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00031	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	46.4			% Rec.		8270 C	03/04/15	1
Phenol-d5	34.7			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	58.6			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	79.2			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	78.0			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	69.5			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-21

Collected By : John Allen
Collection Date : 02/24/15 15:30

ESC Sample # : L751256-21

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	160	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	0.32	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	70.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	480	13.	100	mg/l		2320 B-	03/04/15	5
pH	6.8	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	3.7	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1500	-33.		umhos/cm	J	9050A	03/06/15	1
Dissolved Solids	1100	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0017	0.00025	0.0020	mg/l	J	6020	03/06/15	1
Lead,Dissolved	0.00032	0.00024	0.0020	mg/l	J	6020	03/06/15	1
Molybdenum,Dissolved	0.00074	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0089	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/09/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium,Dissolved	0.21	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.36	0.013	0.20	mg/l		6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	240	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	21.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	0.028	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	3.0	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	60.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.025	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-21

Sample ID : MW-21

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 15:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-21

Collected By : John Allen
Collection Date : 02/24/15 15:30

ESC Sample # : L751256-21

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.3			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	95.9			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/10/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/10/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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L751256-21 (PH) - 6.8@21.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-21

Sample ID : MW-21

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 15:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00033	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	23.6			% Rec.		8270 C	03/04/15	1
Phenol-d5	17.0			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	26.5			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	39.7			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	35.4			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	35.1			% Rec.		8270 C	03/04/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-22

Collected By : John Allen
Collection Date : 02/24/15 17:15

ESC Sample # : L751256-22

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	110	0.10	2.0	mg/l		9056	03/07/15	2
Fluoride	0.57	0.020	0.20	mg/l		9056	03/07/15	2
Sulfate	81.	0.15	10.	mg/l		9056	03/07/15	2
Alkalinity	390	13.	100	mg/l		2320 B-	03/05/15	5
pH	7.1	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	3.3	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1200	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	820	2.8	10.	mg/l		2540 C-	03/04/15	1
Arsenic,Dissolved	0.0025	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	0.00077	0.00024	0.0020	mg/l	J	6020	03/06/15	1
Molybdenum,Dissolved	0.0014	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.012	0.00033	0.010	mg/l		6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/09/15	1
Aluminum,Dissolved	0.037	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.18	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.21	0.013	0.20	mg/l		6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	160	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	17.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	0.0026	0.0012	0.010	mg/l	J	6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	3.4	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	77.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.019	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-22

Sample ID : MW-22

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 17:15

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-22

Collected By : John Allen
Collection Date : 02/24/15 17:15

ESC Sample # : L751256-22

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	98.9			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	96.5			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	97.4			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/04/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/04/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/04/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/04/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/04/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/04/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/13/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/04/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/04/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/04/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/13/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/04/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/04/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/04/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/04/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/04/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/04/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/04/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/04/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1

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L751256-22 (PH) - 7.1@21.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-22

Sample ID : MW-22

Site ID :

Collected By : John Allen
Collection Date : 02/24/15 17:15

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/04/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/04/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/04/15	1
Di-n-butyl phthalate	0.00080	0.00027	0.0030	mg/l	J	8270 C	03/04/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/04/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/04/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/04/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/04/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/04/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/04/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/04/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/04/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/04/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/04/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/04/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/04/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/04/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/04/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/04/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/04/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/04/15	1
Surrogate Recovery								
2-Fluorophenol	40.6			% Rec.		8270 C	03/04/15	1
Phenol-d5	29.1			% Rec.		8270 C	03/04/15	1
Nitrobenzene-d5	52.5			% Rec.		8270 C	03/04/15	1
2-Fluorobiphenyl	68.2			% Rec.		8270 C	03/04/15	1
2,4,6-Tribromophenol	67.9			% Rec.		8270 C	03/04/15	1
p-Terphenyl-d14	61.6			% Rec.		8270 C	03/04/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-23

Sample ID : MW-30

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	75.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.4	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	81.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	200	2.6	20.	mg/l		2320 B-	03/05/15	1
pH	7.6	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	3.1	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	720	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	460	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0043	0.00025	0.0020	mg/l		6020	03/06/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/06/15	1
Molybdenum,Dissolved	0.0027	0.00014	0.0050	mg/l	J	6020	03/06/15	1
Uranium,Dissolved	0.0018	0.00033	0.010	mg/l	J	6020	03/06/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/09/15	1
Aluminum,Dissolved	0.077	0.035	0.10	mg/l	J	6010B	03/06/15	1
Barium,Dissolved	0.073	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.16	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	96.	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	12.	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	0.0066	0.0012	0.010	mg/l	J	6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.2	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	38.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	U	0.0059	0.050	mg/l		6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-23

Sample ID : MW-30

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	0.00072	0.00032	0.0050	mg/l	J	8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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L751256-23 (PH) - 7.6@21.7c



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-23

Sample ID : MW-30

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	94.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	97.6			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

U = ND (Not Detected)

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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REPORT OF ANALYSIS

John Allen
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April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-23

Sample ID : MW-30

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 09:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	0.00028	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	45.0			% Rec.		8270 C	03/06/15	1
Phenol-d5	34.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	61.1			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	88.2			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	64.6			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	71.4			% Rec.		8270 C	03/06/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-7

Collected By : John Allen
Collection Date : 02/25/15 11:35

ESC Sample # : L751256-24

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	35.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	0.71	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	60.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	210	2.6	20.	mg/l		2320 B-	03/05/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.0	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	640	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	420	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0055	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00041	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0011	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0033	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/06/15	1
Barium,Dissolved	0.24	0.0017	0.0050	mg/l		6010B	03/06/15	1
Boron,Dissolved	0.18	0.013	0.20	mg/l	J	6010B	03/06/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/06/15	1
Calcium,Dissolved	85.	0.046	1.0	mg/l		6010B	03/06/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/06/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/06/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/06/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/06/15	1
Magnesium,Dissolved	7.5	0.011	1.0	mg/l		6010B	03/06/15	1
Manganese,Dissolved	0.011	0.0012	0.010	mg/l		6010B	03/06/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/06/15	1
Potassium,Dissolved	2.1	0.10	1.0	mg/l		6010B	03/06/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/06/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/07/15	1
Sodium,Dissolved	45.	0.098	1.0	mg/l		6010B	03/06/15	1
Zinc,Dissolved	0.0083	0.0059	0.050	mg/l	J	6010B	03/06/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-24

Sample ID : MW-7

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 11:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-7

Collected By : John Allen
Collection Date : 02/25/15 11:35

ESC Sample # : L751256-24

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	88.5			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.0			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-24

Sample ID : MW-7

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 11:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.013	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	27.2			% Rec.		8270 C	03/06/15	1
Phenol-d5	22.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	32.4			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	47.7			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	37.6			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	43.8			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : RW-1

Collected By : John Allen
Collection Date : 02/25/15 13:10

ESC Sample # : L751256-25

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	26.	0.052	1.0	mg/l		9056	03/07/15	1
Fluoride	1.2	0.0099	0.10	mg/l		9056	03/07/15	1
Sulfate	74.	0.077	5.0	mg/l		9056	03/07/15	1
Alkalinity	180	2.6	20.	mg/l		2320 B-	03/05/15	1
pH	7.5	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	1.6	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	580	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	370	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.011	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00042	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0025	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0018	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/09/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/09/15	1
Barium,Dissolved	0.15	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.19	0.013	0.20	mg/l	J	6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	69.	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	7.5	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	2.3	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	50.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.0068	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:28
L751256-25 (PH) - 7.5@21.4c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-25

Sample ID : RW-1

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 13:10

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : RW-1

Collected By : John Allen
Collection Date : 02/25/15 13:10

ESC Sample # : L751256-25

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.3			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	95.9			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	98.1			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-25

Sample ID : RW-1

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 13:10

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.0034	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	47.5			% Rec.		8270 C	03/06/15	1
Phenol-d5	35.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	61.7			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	84.2			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	74.4			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	73.2			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-26

Sample ID : MW-1

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	26.	0.052	1.0	mg/l		9056	03/06/15	1
Fluoride	1.1	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	66.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	190	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.3	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	1.5	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	620	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	390	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.012	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00048	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0025	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0022	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/09/15	1
Barium,Dissolved	0.13	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.18	0.013	0.20	mg/l	J	6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	87.	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	8.1	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	1.9	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	40.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.0067	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-26

Sample ID : MW-1

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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L751256-26 (PH) - 7.3@21.5c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-1

Collected By : John Allen
Collection Date : 02/25/15 14:25

ESC Sample # : L751256-26

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	95.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-26

Sample ID : MW-1

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.0036	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	33.6			% Rec.		8270 C	03/06/15	1
Phenol-d5	27.6			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	43.1			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	71.3			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	84.6			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	77.0			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-6

Collected By : John Allen
Collection Date : 02/25/15 15:55

ESC Sample # : L751256-27

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	42.	0.052	1.0	mg/l		9056	03/06/15	1
Fluoride	0.58	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	67.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	270	2.6	20.	mg/l	J6	2320 B-	03/11/15	1
pH	7.2	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	0.17	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	790	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	500	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0061	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00072	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0026	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0066	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.092	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.19	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.19	0.013	0.20	mg/l	J	6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	100	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	0.015	0.014	0.10	mg/l	J	6010B	03/09/15	1
Magnesium,Dissolved	11.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	1.0	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	3.2	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	63.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.020	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-27

Sample ID : MW-6

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 15:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:28
L751256-27 (PH) - 7.2@21.5c



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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-6

Collected By : John Allen
Collection Date : 02/25/15 15:55

ESC Sample # : L751256-27

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.6			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	96.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.6			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-27

Sample ID : MW-6

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 15:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.0012	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	0.00029	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	27.3			% Rec.		8270 C	03/06/15	1
Phenol-d5	19.5			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	54.3			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	81.5			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	83.6			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	72.3			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-28

Sample ID : MW-9

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 17:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	49.	0.052	1.0	mg/l		9056	03/06/15	1
Fluoride	0.69	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	69.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	190	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.7	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	3.5	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	710	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	440	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0087	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.0014	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0031	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/09/15	1
Barium,Dissolved	0.10	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.18	0.013	0.20	mg/l	J	6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	57.	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	6.0	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	2.6	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	90.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	U	0.0059	0.050	mg/l		6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-28

Sample ID : MW-9

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 17:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-9

Collected By : John Allen
Collection Date : 02/25/15 17:35

ESC Sample # : L751256-28

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	95.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	97.1			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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L751256-28 (PH) - 7.7@21.5c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-28

Sample ID : MW-9

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 17:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.0023	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	0.00029	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	46.3			% Rec.		8270 C	03/06/15	1
Phenol-d5	35.4			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	63.8			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	83.1			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	79.6			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	72.2			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-29

Collected By : John Allen
Collection Date : 02/25/15 18:40

ESC Sample # : L751256-29

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	250	0.26	5.0	mg/l		9056	03/10/15	5
Fluoride	0.95	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	90.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	330	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.2	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	5.6	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1600	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	1000	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0020	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.0012	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0062	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/09/15	1
Barium,Dissolved	0.13	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.26	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	230	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	0.24	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	31.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	3.3	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	83.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.013	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-29

Sample ID : MW-29

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 18:40

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-29

Collected By : John Allen
Collection Date : 02/25/15 18:40

ESC Sample # : L751256-29

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.7			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	95.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	97.7			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-29

Sample ID : MW-29

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 18:40

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.00078	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	0.00039	0.00033	0.010	mg/l	J	8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	40.9			% Rec.		8270 C	03/06/15	1
Phenol-d5	30.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	57.3			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	86.0			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	74.7			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	72.8			% Rec.		8270 C	03/06/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-23

Collected By : John Allen
Collection Date : 02/25/15 10:20

ESC Sample # : L751256-30

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	57.	0.052	1.0	mg/l		9056	03/10/15	1
Fluoride	0.63	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	92.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	260	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.3	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	3.1	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1700	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	1000	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0024	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00031	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0017	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0052	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.042	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.11	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.21	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	230	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	25.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	4.0	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	70.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.046	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-30

Sample ID : MW-23

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 10:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-23

Collected By : John Allen
Collection Date : 02/25/15 10:20

ESC Sample # : L751256-30

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	89.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	95.5			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-30

Sample ID : MW-23

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 10:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.00074	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	42.8			% Rec.		8270 C	03/06/15	1
Phenol-d5	33.0			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	60.5			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	82.4			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	73.9			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	71.9			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-24

Collected By : John Allen
Collection Date : 02/25/15 13:15

ESC Sample # : L751256-31

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	24.	0.052	1.0	mg/l		9056	03/06/15	1
Fluoride	2.7	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	42.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	190	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.7	-33.		su	JT8	9040C	03/04/15	1
Nitrate-Nitrite	2.8	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	580	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	360	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0055	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.0025	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0026	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.040	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.078	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.19	0.013	0.20	mg/l	J	6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	81.	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	10.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	1.9	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	37.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.013	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-31

Sample ID : MW-24

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 13:15

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-24

Collected By : John Allen
Collection Date : 02/25/15 13:15

ESC Sample # : L751256-31

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.4			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	98.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	97.3			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-31

Sample ID : MW-24

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 13:15

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	0.00031	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	43.7			% Rec.		8270 C	03/06/15	1
Phenol-d5	32.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	60.8			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	81.5			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	72.9			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	72.8			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-25

Collected By : John Allen
Collection Date : 02/25/15 14:30

ESC Sample # : L751256-32

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	38.	0.052	1.0	mg/l		9056	03/10/15	1
Fluoride	0.73	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	69.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	340	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.3	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	3.1	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1400	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	870	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0023	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00050	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0029	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0078	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.13	0.035	0.10	mg/l	B	6010B	03/09/15	1
Barium,Dissolved	0.20	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.23	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	170	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	0.0016	0.0014	0.010	mg/l	J	6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	20.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	0.0056	0.0049	0.020	mg/l	J	6010B	03/09/15	1
Potassium,Dissolved	4.4	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	110	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.0086	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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L751256-32 (PH) - 7.3@20.0c



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Mt. Juliet, TN 37122
(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-32

Sample ID : MW-25

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-25

Collected By : John Allen
Collection Date : 02/25/15 14:30

ESC Sample # : L751256-32

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.5			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	96.3			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.9			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-32

Sample ID : MW-25

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	47.0			% Rec.		8270 C	03/06/15	1
Phenol-d5	33.8			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	62.3			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	84.3			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	77.2			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	73.1			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-33

Sample ID : DUP-3

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	180	0.26	5.0	mg/l		9056	03/10/15	5
Fluoride	0.71	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	69.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	340	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.1	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	3.1	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1400	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	840	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0023	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00026	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0011	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0080	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/09/15	1
Barium,Dissolved	0.20	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.22	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	170	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	0.0017	0.0014	0.010	mg/l	J	6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	20.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	0.0054	0.0049	0.020	mg/l	J	6010B	03/09/15	1
Potassium,Dissolved	4.4	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	120	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.014	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-33

Sample ID : DUP-3

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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L751256-33 (PH) - 7.1@18.9c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-33

Sample ID : DUP-3

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.2			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	97.3			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.2			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	0.00023	0.00021	0.010	mg/l	J	8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-33

Sample ID : DUP-3

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 14:35

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	0.00032	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	39.6			% Rec.		8270 C	03/06/15	1
Phenol-d5	28.7			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	58.0			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	81.7			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	77.0			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	71.6			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-26

Collected By : John Allen
Collection Date : 02/25/15 17:55

ESC Sample # : L751256-34

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	190	0.26	5.0	mg/l		9056	03/10/15	5
Fluoride	0.71	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	110	0.39	25.	mg/l		9056	03/10/15	5
Alkalinity	240	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.3	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	2.3	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1300	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	790	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0024	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.0011	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0041	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.051	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.099	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.18	0.013	0.20	mg/l	J	6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	170	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	0.058	0.014	0.10	mg/l	J	6010B	03/09/15	1
Magnesium,Dissolved	20.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	0.0022	0.0012	0.010	mg/l	J	6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	3.0	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	83.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.015	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-34

Sample ID : MW-26

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 17:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	0.0012	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-34

Sample ID : MW-26

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 17:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	99.1			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	96.9			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	95.7			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:29
L751256-34 (PH) - 7.3@18.7c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-34

Sample ID : MW-26

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 17:55

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	0.00035	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	46.6			% Rec.		8270 C	03/06/15	1
Phenol-d5	33.2			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	60.3			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	82.0			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	73.7			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	71.4			% Rec.		8270 C	03/06/15	1

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L751256-34 (PH) - 7.3@18.7c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-35

Sample ID : AC-2-25-15

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 19:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-35

Sample ID : AC-2-25-15

Site ID :

Collected By : John Allen
Collection Date : 02/25/15 19:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1
Surrogate Recovery								
Toluene-d8	99.4			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	94.9			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	94.9			% Rec.		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-36

Sample ID : MW-19

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	140	0.26	5.0	mg/l		9056	03/10/15	5
Fluoride	0.87	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	82.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	210	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.4	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	2.3	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1000	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	630	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0046	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.0032	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0025	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/09/15	1
Barium,Dissolved	0.070	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.22	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	110	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	10.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	2.7	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	100	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.014	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-36

Sample ID : MW-19

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:29
L751256-36 (PH) - 7.4@18.9c



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(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-36

Sample ID : MW-19

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	90.3			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	95.3			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-36

Sample ID : MW-19

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.00093	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	46.7			% Rec.		8270 C	03/06/15	1
Phenol-d5	35.6			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	60.8			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	83.2			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	76.5			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	72.8			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : DUP-2

Collected By : John Allen
Collection Date : 02/26/15 13:20

ESC Sample # : L751256-37

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	130	0.26	5.0	mg/l		9056	03/11/15	5
Fluoride	0.86	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	85.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	220	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.7	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	2.4	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1100	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	660	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0046	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.0030	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0025	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.089	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.069	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.21	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	110	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	10.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	2.8	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	110	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.013	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-37

Sample ID : DUP-2

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-37

Sample ID : DUP-2

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	96.9			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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L751256-37 (PH) - 7.7@19.9c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-37

Sample ID : DUP-2

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:20

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	41.4			% Rec.		8270 C	03/06/15	1
Phenol-d5	31.2			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	55.3			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	79.1			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	76.5			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	69.6			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-18

Collected By : John Allen
Collection Date : 02/26/15 15:00

ESC Sample # : L751256-38

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	130	0.26	5.0	mg/l		9056	03/10/15	5
Fluoride	0.68	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	97.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	230	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.7	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	3.5	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1100	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	670	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0026	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00026	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0020	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0039	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.069	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.10	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.26	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	160	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	0.0061	0.0053	0.020	mg/l	J	6010B	03/09/15	1
Iron,Dissolved	0.022	0.014	0.10	mg/l	J	6010B	03/09/15	1
Magnesium,Dissolved	14.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	2.6	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	69.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.017	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-38

Sample ID : MW-18

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 15:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-38

Sample ID : MW-18

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 15:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	89.3			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	94.7			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-38

Sample ID : MW-18

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 15:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.00081	0.00071	0.0030	mg/l	J	8270 C	03/06/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	43.6			% Rec.		8270 C	03/06/15	1
Phenol-d5	32.6			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	58.9			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	83.6			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	80.5			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	70.9			% Rec.		8270 C	03/06/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Reported: 04/14/15 15:21 Revised: 04/17/15 09:29
L751256-38 (PH) - 7.7@19.8c



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-8

Collected By : John Allen
Collection Date : 02/26/15 16:30

ESC Sample # : L751256-39

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	220	0.26	5.0	mg/l		9056	03/10/15	5
Fluoride	0.49	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	86.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	310	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.5	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	7.0	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1600	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	960	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0055	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	U	0.00024	0.0020	mg/l		6020	03/08/15	1
Molybdenum,Dissolved	0.00083	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0073	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.11	0.035	0.10	mg/l	B	6010B	03/09/15	1
Barium,Dissolved	0.20	0.0017	0.0050	mg/l		6010B	03/09/15	1
Boron,Dissolved	0.23	0.013	0.20	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	200	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	23.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	4.2	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	100	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.0059	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-39

Sample ID : MW-8

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-39

Sample ID : MW-8

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	96.3			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	96.3			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/07/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/07/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1

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Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-39

Sample ID : MW-8

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 16:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	0.082	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	0.00034	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	48.5			% Rec.		8270 C	03/06/15	1
Phenol-d5	37.0			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	62.4			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	82.0			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	83.5			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	75.5			% Rec.		8270 C	03/06/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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L751256-39 (PH) - 7.5@19.8c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : MW-17R

Collected By : John Allen
Collection Date : 02/26/15 13:05

ESC Sample # : L751256-40

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	150	0.26	5.0	mg/l		9056	03/11/15	5
Fluoride	0.65	0.0099	0.10	mg/l		9056	03/06/15	1
Sulfate	75.	0.077	5.0	mg/l		9056	03/06/15	1
Alkalinity	220	2.6	20.	mg/l		2320 B-	03/11/15	1
pH	7.6	-33.		su	JT8	9040C	03/05/15	1
Nitrate-Nitrite	2.6	0.020	0.10	mg/l		353.2	03/09/15	1
Specific Conductance	1100	-33.		umhos/cm	J	9050A	03/09/15	1
Dissolved Solids	670	2.8	10.	mg/l		2540 C-	03/06/15	1
Arsenic,Dissolved	0.0028	0.00025	0.0020	mg/l		6020	03/08/15	1
Lead,Dissolved	0.00030	0.00024	0.0020	mg/l	J	6020	03/08/15	1
Molybdenum,Dissolved	0.0013	0.00014	0.0050	mg/l	J	6020	03/08/15	1
Uranium,Dissolved	0.0030	0.00033	0.010	mg/l	J	6020	03/08/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/06/15	1
Aluminum,Dissolved	0.046	0.035	0.10	mg/l	JB	6010B	03/09/15	1
Barium,Dissolved	0.12	0.0017	0.0050	mg/l		6010B	03/09/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/09/15	1
Calcium,Dissolved	160	0.046	1.0	mg/l		6010B	03/09/15	1
Chromium,Dissolved	0.0022	0.0014	0.010	mg/l	J	6010B	03/09/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/09/15	1
Copper,Dissolved	U	0.0053	0.020	mg/l		6010B	03/09/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/09/15	1
Magnesium,Dissolved	16.	0.011	1.0	mg/l		6010B	03/09/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/09/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/09/15	1
Potassium,Dissolved	2.5	0.10	1.0	mg/l		6010B	03/09/15	1
Selenium,Dissolved	U	0.0074	0.020	mg/l		6010B	03/09/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/09/15	1
Sodium,Dissolved	47.	0.098	1.0	mg/l		6010B	03/09/15	1
Zinc,Dissolved	0.023	0.0059	0.050	mg/l	J	6010B	03/09/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/08/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/08/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/08/15	1

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L751256-40 (PH) - 7.6@19.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-40

Sample ID : MW-17R

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/08/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/08/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/08/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/08/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/08/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/08/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/08/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/08/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/08/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/08/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/08/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/08/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/08/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/08/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/08/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/08/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/08/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/08/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/08/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/08/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/08/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/08/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/08/15	1

Surrogate Recovery

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-40

Sample ID : MW-17R

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Toluene-d8	103.			% Rec.		8260B	03/08/15	1
Dibromofluoromethane	90.2			% Rec.		8260B	03/08/15	1
4-Bromofluorobenzene	94.5			% Rec.		8260B	03/08/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Acetophenone	U	0.0027	0.010	mg/l		8270 C	03/06/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/06/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/06/15	1
Benzo(a)anthracene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/06/15	1
Benzo(b)fluoranthene	U	0.00027	0.0010	mg/l		8270 C	03/06/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/06/15	1
Benzo(g,h,i)perylene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Benzo(a)pyrene	U	0.000038	0.00020	mg/l		8270 C	03/13/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/06/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/06/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/06/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/13/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/06/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/06/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/06/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/06/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/06/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/06/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/06/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/06/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-40

Sample ID : MW-17R

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 13:05

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/06/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/06/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/06/15	1
Di-n-butyl phthalate	0.00034	0.00027	0.0030	mg/l	J	8270 C	03/06/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/06/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/06/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/06/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/06/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/06/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/06/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/06/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/06/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/06/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/06/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/06/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/06/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/06/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/06/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/06/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/06/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/06/15	1
Surrogate Recovery								
2-Fluorophenol	42.3			% Rec.		8270 C	03/06/15	1
Phenol-d5	33.2			% Rec.		8270 C	03/06/15	1
Nitrobenzene-d5	61.6			% Rec.		8270 C	03/06/15	1
2-Fluorobiphenyl	83.2			% Rec.		8270 C	03/06/15	1
2,4,6-Tribromophenol	78.4			% Rec.		8270 C	03/06/15	1
p-Terphenyl-d14	71.3			% Rec.		8270 C	03/06/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-41

Sample ID : AC-2-27-15

Site ID :

Collected By : John Allen
Collection Date : 02/27/15 12:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/10/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/10/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/10/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/10/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/10/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/10/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/10/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/10/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/10/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/10/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/10/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/10/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/10/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/10/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/10/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/10/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l	J4	8260B	03/10/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l	J4	8260B	03/10/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/10/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/10/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/10/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/10/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/10/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/10/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/10/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/10/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/10/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/10/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/10/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l	J3	8260B	03/10/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/10/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/10/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/10/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/10/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/10/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/10/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/10/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/10/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/10/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/10/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/10/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/10/15	1

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RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery
Sample ID : AC-2-27-15
Collected By : John Allen
Collection Date : 02/27/15 12:00

ESC Sample # : L751256-41

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/10/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/10/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/10/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/10/15	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/10/15	1
Dibromofluoromethane	102.			% Rec.		8260B	03/10/15	1
4-Bromofluorobenzene	98.9			% Rec.		8260B	03/10/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-42

Sample ID : TRIP BLANK-1

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 00:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-42

Sample ID : TRIP BLANK-1

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 00:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	96.2			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	104.			% Rec.		8260B	03/09/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

ESC Sample # : L751256-43

Sample ID : TRIP BLANK-2

Site ID :

Collected By : John Allen
Collection Date : 02/26/15 00:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/09/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/09/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/09/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/09/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/09/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/09/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/09/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/09/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/09/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/09/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/09/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/09/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/09/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/09/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/09/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/09/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/09/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/09/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/09/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/09/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/09/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/09/15	1

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Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 17, 2015

Date Received : March 03, 2015
Description : Lovington Lea Refinery

Sample ID : TRIP BLANK-2

Collected By : John Allen
Collection Date : 02/26/15 00:00

ESC Sample # : L751256-43

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/09/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/09/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/09/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/09/15	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	03/09/15	1
Dibromofluoromethane	96.0			% Rec.		8260B	03/09/15	1
4-Bromofluorobenzene	102.			% Rec.		8260B	03/09/15	1

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L751256-01	WG773500	SAMP	Alkalinity	R3023049	J6
	WG773711	SAMP	Boron,Dissolved	R3023179	J
	WG773711	SAMP	Chromium,Dissolved	R3023179	J
	WG773711	SAMP	Zinc,Dissolved	R3023179	J
	WG773482	SAMP	pH	R3022866	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Bis(2-ethylhexyl)phthalate	R3022985	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4J5
	WG773842	SAMP	Lead,Dissolved	R3023417	J
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Boron,Dissolved	R3023179	J
	WG773482	SAMP	pH	R3022866	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
L751256-02	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Boron,Dissolved	R3023179	J
L751256-03	WG773711	SAMP	Selenium,Dissolved	R3023179	J
	WG773711	SAMP	Zinc,Dissolved	R3023179	J
	WG773482	SAMP	pH	R3022866	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3023881	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773341	SAMP	Biphenyl	R3022985	J
L751256-04	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
L751256-05	WG773341	SAMP	Dimethyl phthalate	R3022985	J
	WG773341	SAMP	Phenol	R3022985	J
L751256-06	WG773564	SAMP	tert-Butylbenzene	R3023588	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773564	SAMP	Ethylbenzene	R3023588	J
	WG773564	SAMP	Isopropylbenzene	R3023588	J
	WG773711	SAMP	Chromium,Dissolved	R3023179	J
	WG773711	SAMP	Selenium,Dissolved	R3023179	J
	WG773482	SAMP	pH	R3022866	JT8
L751256-07	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Cobalt,Dissolved	R3023405	J
	WG773711	SAMP	Zinc,Dissolved	R3023405	J
	WG773482	SAMP	pH	R3022866	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG774082	SAMP	Nitrate-Nitrite	R3023672	J
	WG773341	SAMP	Biphenyl	R3022985	J
	WG773341	SAMP	Carbazole	R3022985	J
	WG773341	SAMP	Dibenzofuran	R3022985	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773341	SAMP	Dimethyl phthalate	R3022985	J
L751256-08	WG773564	SAMP	Benzene	R3023588	J
	WG773564	SAMP	tert-Butylbenzene	R3023588	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
	WG773711	SAMP	Chromium,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773341	SAMP	Bis(2-ethylhexyl)phthalate	R3022985	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
L751256-09	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Calcium,Dissolved	R3023313	J
	WG773521	SAMP	Chloride	R3023544	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L751256-10	WG773521	SAMP	Sulfate	R3023544	J
	WG773482	SAMP	pH	R3022866	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773487	SAMP	Dissolved Solids	R3023169	T4
	WG774082	SAMP	Nitrate-Nitrite	R3023672	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773521	SAMP	Chloride	R3023544	J
	WG773521	SAMP	Sulfate	R3023544	J
	WG773485	SAMP	pH	R3022867	JT8
L751256-11	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773487	SAMP	Dissolved Solids	R3023169	JT4
	WG774082	SAMP	Nitrate-Nitrite	R3023672	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
	WG773564	SAMP	Acetone	R3023588	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773711	SAMP	Boron,Dissolved	R3023313	J
	WG773711	SAMP	Copper,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
L751256-12	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773477	SAMP	Dissolved Solids	R3022906	T8
	WG773341	SAMP	Bis(2-ethylhexyl)phthalate	R3022985	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773341	SAMP	Phenol	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
L751256-13	WG773711	SAMP	Boron,Dissolved	R3023313	J
L751256-14	WG773711	SAMP	Chromium,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
L751256-15	WG773711	SAMP	Manganese,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773848	SAMP	Mercury	R3023706	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
L751256-16	WG773485	SAMP	pH	R3022867	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Lead,Dissolved	R3023417	J
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773485	SAMP	pH	R3022867	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Bis(2-ethylhexyl)phthalate	R3022985	J
L751256-17	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773564	SAMP	Chloroform	R3023588	J
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
L751256-18					

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L751256-19	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
	WG773711	SAMP	Chromium,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
L751256-20	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
L751256-21	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773564	SAMP	Chloroethane	R3023588	J4
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG773759	SAMP	Specific Conductance	R3023290	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773842	SAMP	Arsenic,Dissolved	R3023417	J
	WG773842	SAMP	Lead,Dissolved	R3023417	J
L751256-22	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
	WG773711	SAMP	Manganese,Dissolved	R3023313	J
	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773341	SAMP	Di-n-butyl phthalate	R3022985	J
	WG773842	SAMP	Lead,Dissolved	R3023417	J
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
L751256-23	WG773711	SAMP	Aluminum,Dissolved	R3023313	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
	WG773711	SAMP	Manganese,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
	WG773566	SAMP	Chloroform	R3023687	J
	WG773842	SAMP	Molybdenum,Dissolved	R3023417	J
	WG773842	SAMP	Uranium,Dissolved	R3023417	J
	WG773711	SAMP	Boron,Dissolved	R3023313	J
L751256-24	WG773711	SAMP	Zinc,Dissolved	R3023313	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
L751256-25	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
L751256-26	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L751256-27	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773713	SAMP	Iron,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG774414	SAMP	Alkalinity	R3024109	J6
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
L751256-28	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
L751256-29	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
	WG773528	SAMP	Phenol	R3023272	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
L751256-30	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
L751256-31	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773485	SAMP	pH	R3022867	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
L751256-32	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	B
	WG773713	SAMP	Chromium,Dissolved	R3023536	J
	WG773713	SAMP	Nickel,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
L751256-33	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Chromium,Dissolved	R3023536	J
	WG773713	SAMP	Nickel,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Biphenyl	R3023272	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
L751256-34	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Boron,Dissolved	R3023536	J
	WG773713	SAMP	Iron,Dissolved	R3023536	J
	WG773713	SAMP	Manganese,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L751256-36	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
L751256-37	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
L751256-38	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Copper,Dissolved	R3023536	J
L751256-39	WG773713	SAMP	Iron,Dissolved	R3023536	J
	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Bis(2-ethylhexyl)phthalate	R3023272	J
L751256-40	WG773908	SAMP	Lead,Dissolved	R3023458	J
	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773713	SAMP	Aluminum,Dissolved	R3023536	JB
	WG773713	SAMP	Chromium,Dissolved	R3023536	J
L751256-41	WG773713	SAMP	Zinc,Dissolved	R3023536	J
	WG773634	SAMP	pH	R3023069	JT8
	WG774086	SAMP	Specific Conductance	R3023563	J
	WG773528	SAMP	Di-n-butyl phthalate	R3023272	J
	WG773908	SAMP	Lead,Dissolved	R3023458	J
L751256-41	WG773908	SAMP	Molybdenum,Dissolved	R3023458	J
	WG773908	SAMP	Uranium,Dissolved	R3023458	J
	WG773789	SAMP	1,1-Dichloroethane	R3023835	J4
	WG773789	SAMP	1,2-Dichloroethane	R3023835	J4
	WG773789	SAMP	2-Butanone (MEK)	R3023835	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
T4	(ESC) - Additional method/sample information: QNS - Quantity Not Sufficient
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773521
Analysis Date:	3/7/2015 12:52:00 PM	Analyst:	236
Instrument ID:	IC-5		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	40.071	100	90 - 110	
Fluoride	1	8	8.2521	103	90 - 110	
Sulfate	1	40	40.141	100	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.679	99	90 - 110	
Fluoride	1	8	8.1947	102	90 - 110	
Sulfate	1	40	39.760	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Chloride	1	40	40.071	100	39.679	99	90 - 110	1	20	
Fluoride	1	8	8.2521	103	8.1947	102	90 - 110	1	20	
Sulfate	1	40	40.141	100	39.760	99	90 - 110	1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Anions by Method 9056
Project No: 227000
Project: Lovington Lea Refinery
Collection Date: 2/26/2015
Analysis Date: 3/6/2015 7:02:00 PM
Instrument ID: IC-10
Sample Numbers: L751256-26, -27, -28, -29, -30

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG773522
Analyst: 183

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.441	99	90 - 110	
Fluoride	1	8	7.9679	100	90 - 110	
Sulfate	1	40	39.629	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.892	100	90 - 110	
Fluoride	1	8	8.0427	101	90 - 110	
Sulfate	1	40	39.935	100	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Chloride	1	40	39.441	99	39.892	100	90 - 110	1	20	
Fluoride	1	8	7.9679	100	8.0427	101	90 - 110	1	20	
Sulfate	1	40	39.629	99	39.935	100	90 - 110	1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774030
Analysis Date:	3/6/2015 1:48:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L751256-31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Fluoride	16984-48-8	< 0.100	< 0.00990	
Nitrate	14797-55-8	< 0.100	< 0.0227	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774478
Analysis Date:	3/10/2015 12:05:00 PM	Analyst:	236
Instrument ID:	IC-5		
Sample Numbers:	L751256-07, -29, -30, -32, -33, -34, -36, -38, -39		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	< 0.0519	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	40.328	101	90 - 110	
Sulfate	1	40	40.395	101	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	40.201	101	90 - 110	
Sulfate	1	40	40.452	101	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Chloride	1	40	40.328	101	40.201	101	90 - 110	0	20	
Sulfate	1	40	40.395	101	40.452	101	90 - 110	0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Anions by Method 9056
Project No: 227000
Project: Lovington Lea Refinery
Collection Date: 2/26/2015
Analysis Date: 3/11/2015 9:30:00 PM
Instrument ID: IC-9
Sample Numbers: L751256-37, -40

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG775081
Analyst: 236

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Chloride	16887-00-6	< 1.00	0.142	
Sulfate	14808-79-8	< 5.00	< 0.0774	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.832	100	90 - 110	
Sulfate	1	40	39.668	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.878	100	90 - 110	
Sulfate	1	40	39.616	99	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Chloride	1	40	39.832	100	39.878	100	90 - 110	0	20	
Sulfate	1	40	39.668	99	39.616	99	90 - 110	0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG774030
Collection Date:	2/26/2015	Analyst:	236
Analysis Date:	3/6/2015 1:48:00 PM		
Instrument ID:	IC-9		
Sample Numbers:	L751256-31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.686	99	90 - 110	
Fluoride	1	8	7.9467	99	90 - 110	
Nitrate	1	8	8.1036	101	90 - 110	
Sulfate	1	40	39.610	99	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Chloride	1	40	39.517	99	90 - 110	
Fluoride	1	8	7.8243	98	90 - 110	
Nitrate	1	8	8.1114	101	90 - 110	
Sulfate	1	40	39.222	98	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Chloride	1	40	39.686	99	39.517	99	90 - 110	0	20	
Fluoride	1	8	7.9467	99	7.8243	98	90 - 110	2	20	
Nitrate	1	8	8.1036	101	8.1114	101	90 - 110	0	20	
Sulfate	1	40	39.610	99	39.222	98	90 - 110	1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056			Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003	Analytic Batch:	WG773521
Project:	Lovington Lea Refinery	Analyst:	236		
Collection Date:	2/26/2015				
Analysis Date:	3/7/2015 12:52:00 PM				
Instrument ID:	IC-5				
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25				

Sample Duplicate

L751256-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	31.138	30.977	1	20	
Fluoride	1	1.5191	1.5087	1	20	
Sulfate	1	74.059	73.651	1	20	

Sample Duplicate

L751256-25

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	25.853	25.889	0	20	
Fluoride	1	1.1723	1.1812	1	20	
Sulfate	1	73.567	73.741	0	20	

Matrix Spike / Matrix Spike Duplicate

L751256-09

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	0.2519	47.609	95	49.708	99	80 - 120		4	20	
Fluoride	1	5	<0.0099	4.8112	96	5.0029	100	80 - 120		4	20	
Sulfate	1	50	0.4456	47.921	95	49.835	99	80 - 120		4	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Anions by Method 9056
Project No: 227000
Project: Lovington Lea Refinery
Collection Date: 2/26/2015
Analysis Date: 3/6/2015 7:02:00 PM
Instrument ID: IC-10
Sample Numbers: L751256-26, -27, -28, -29, -30

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG773522
Analyst: 183

Sample Duplicate

L750876-05

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	45.067	45.761	2	20	
Fluoride	1	0.128	0.1424	11	20	
Sulfate	1	2.3855	2.3731	1	20	

Sample Duplicate

L751181-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	20	781.58	839.98	7	20	
Fluoride	20	0.7898	2.7303	110	20	P1
Sulfate	20	328.88	351.45	7	20	

Matrix Spike / Matrix Spike Duplicate

L751256-30

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Fluoride	1	5	0.6331	5.8468	104	5.755	102	80 - 120		2	20	
Sulfate	1	50	92.375	135.65	87	134.47	84	80 - 120		1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774030
Analysis Date:	3/6/2015 1:48:00 PM	Analyst:	236
Instrument ID:	IC-9		
Sample Numbers:	L751256-31, -32, -33, -34, -36, -37, -38, -39, -40		

Sample Duplicate

L751256-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	24.040	24.085	0	20	
Fluoride	1	2.6798	2.6752	0	20	
Nitrate	1	2.5479	2.5997	2	20	
Sulfate	1	42.186	42.177	0	20	

Sample Duplicate

L751382-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	7.1206	7.0392	1	20	
Fluoride	1	0.3478	0.3463	0	20	
Nitrate	1	<0.0227	<0.0227		20	

Matrix Spike / Matrix Spike Duplicate

L751754-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	0.6011	49.868	99	50.045	99	80 - 120		0	20	
Fluoride	1	5	0.0392	4.9041	97	4.9163	98	80 - 120		0	20	
Nitrate	1	5	0.156	5.0161	97	5.1037	99	80 - 120		2	20	
Sulfate	1	50	5.3069	54.316	98	54.492	98	80 - 120		0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Anions by Method 9056		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774478
Analysis Date:	3/10/2015 12:05:00 PM	Analyst:	236
Instrument ID:	IC-5		
Sample Numbers:	L751256-07, -29, -30, -32, -33, -34, -36, -38, -39		

Sample Duplicate

L751256-07

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	10	549.72	525.13	5	20	
Sulfate	10	54.946	51.906	6	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Anions by Method 9056
Project No: 227000
Project: Lovington Lea Refinery
Collection Date: 2/26/2015
Analysis Date: 3/11/2015 9:30:00 PM
Instrument ID: IC-9
Sample Numbers: L751256-37, -40

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG775081
Analyst: 236

Sample Duplicate

L751382-02

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	2	7.5528	7.2314	4	20	
Sulfate	2	152.85	154.51	1	20	

Sample Duplicate

L752776-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Chloride	1	12.871	12.868	0	20	
Sulfate	1	19.575	18.314	7	20	

Matrix Spike / Matrix Spike Duplicate

L751598-03

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Chloride	1	50	2.2284	33.097	62	34.425	64	80 - 120	J6	4	20	
Sulfate	1	50	12.292	43.454	62	44.881	65	80 - 120	J6	3	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Alkalinity by Method 2320 B-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773500
Analysis Date:	3/4/2015 1:45:00 PM	Analyst:	239
Instrument ID:	TITRATION		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Alkalinity		< 20.0	< 2.61	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Alkalinity	1	100	102	102	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Alkalinity	1	100	101	100	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Alkalinity	1	100	102	102	101	100	85 - 115	0.99	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Alkalinity by Method 2320 B-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773873
Analysis Date:	3/5/2015 12:28:00 PM	Analyst:	239
Instrument ID:	TITRATION		
Sample Numbers:	L751256-22, -23, -24, -25		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Alkalinity		< 20.0	< 2.61	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Alkalinity	1	100	103	103	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Alkalinity	1	100	105	105	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Alkalinity	1	100	103	103	105	105	85 - 115	1.92	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Alkalinity by Method 2320 B-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774414
Analysis Date:	3/11/2015 8:23:00 AM	Analyst:	239
Instrument ID:	TITRATION		
Sample Numbers:	L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Alkalinity		< 20.0	< 2.61	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Alkalinity	1	100	104	104	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Alkalinity	1	100	101	101	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Alkalinity	1	100	104	104	101	101	85 - 115	2.93	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Alkalinity by Method 2320 B-2011
 Project No: 227000 Matrix: Water - mg/L
 Project: Lovington Lea Refinery EPA ID: TN00003
 Collection Date: 2/26/2015 **Analytic Batch: WG773500**
 Analysis Date: 3/4/2015 1:45:00 PM Analyst: 239
 Instrument ID: TITRATION
 Sample Numbers: L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21

Sample Duplicate

L750909-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Alkalinity	5	520	521	0.19	20	

Sample Duplicate

L751256-21

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Alkalinity	5	480	474	1.26	20	

Matrix Spike / Matrix Spike Duplicate

L751256-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Alkalinity	1	100	180	246	66	247	70	80 - 120	J6	0.41	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Alkalinity by Method 2320 B-2011

Project No: 227000

Project: Lovington Lea Refinery

Collection Date: 2/26/2015

Analysis Date: 3/5/2015 12:28:00 PM

Instrument ID: TITRATION

Sample Numbers: L751256-22, -23, -24, -25

Matrix: Water - mg/L

EPA ID: TN00003

Analytic Batch: WG773873

Analyst: 239

Sample Duplicate

L751256-23

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Alkalinity	1	200	194	3.05	20	

Sample Duplicate

L751256-24

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Alkalinity	1	210	207	1.44	20	

Matrix Spike / Matrix Spike Duplicate

L751256-22

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Alkalinity	5	100	390	828	87.6	836	89.2	80 - 120		0.96	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Alkalinity by Method 2320 B-2011			Matrix:	Water - mg/L
Project No:	227000			EPA ID:	TN00003
Project:	Lovington Lea Refinery			Analytic Batch:	WG774414
Collection Date:	2/26/2015			Analyst:	239
Analysis Date:	3/11/2015 8:23:00 AM				
Instrument ID:	TITRATION				
Sample Numbers:	L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40				

Sample Duplicate

L751256-26

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Alkalinity	1	190	192	1.05	20	

Sample Duplicate

L751256-40

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Alkalinity	1	220	221	0.45	20	

Matrix Spike / Matrix Spike Duplicate

L751256-27

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Alkalinity	1	100	270	339	69	340	70	80 - 120	J6	0.29	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774082
Analysis Date:	3/9/2015 4:17:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.27	105	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.25	105	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Nitrate-Nitrite	1	5	5.27	105	5.25	105	90 - 110	0.38	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774083
Analysis Date:	3/9/2015 6:33:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Nitrate-Nitrite	7727-37-9	< 0.100	< 0.0197	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.1	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Nitrate-Nitrite	1	5	5.17	103	90 - 110	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Nitrate-Nitrite	1	5	5.1	102	5.17	103	90 - 110	1.36	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774082
Analysis Date:	3/9/2015 4:17:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25		

Sample Duplicate

L751256-14

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	1.9	1.86	0	20	

Sample Duplicate

L751256-24

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	2	2.04	0	20	

Matrix Spike / Matrix Spike Duplicate

L751256-25

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	1.6	6.5	98	6.57	99.4	90 - 110		1.07	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774083
Analysis Date:	3/9/2015 6:33:00 AM	Analyst:	578
Instrument ID:	LACHAT5		
Sample Numbers:	L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Sample Duplicate

L751256-36

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	2.3	2.33	0	20	

Sample Duplicate

L751256-40

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Nitrate-Nitrite	1	2.6	2.63	0	20	

Matrix Spike / Matrix Spike Duplicate

L751256-34

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
Nitrate-Nitrite	1	5	2.3	7.24	98.8	7.2	98	90 - 110		0.55	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Specific Concuctance by Method 9050A		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773759
Analysis Date:	3/6/2015 3:05:00 PM	Analyst:	599
Instrument ID:	ORION VS-2		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21		

Method Blank

Analyte	CAS	PQL	Qualifier
Specific Conductance	SPCON	2.14	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Specific Conductance	1	759	778	103	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Specific Conductance	1	759	778	103	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Specific Conductance	1	759	778	103	778	103	85 - 115	0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Specific Concuctance by Method 9050A		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774086
Analysis Date:	3/9/2015 10:10:00 AM	Analyst:	645
Instrument ID:	ORION VS-2		
Sample Numbers:	L751256-22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	Qualifier
Specific Conductance	SPCON	1.01	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Specific Conductance	1	759	812	107	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Specific Conductance	1	759	809	107	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Specific Conductance	1	759	812	107	809	107	85 - 115	0.37	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Specific Concuctance by Method 9050A		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773759
Analysis Date:	3/6/2015 3:05:00 PM	Analyst:	599
Instrument ID:	ORION VS-2		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21		

Sample Duplicate

L751256-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Specific Conductance	1	900	900	0	20	

Sample Duplicate

L751256-21

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Specific Conductance	1	1500	1512	0.8	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Specific Concuctance by Method 9050A		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774086
Analysis Date:	3/9/2015 10:10:00 AM	Analyst:	645
Instrument ID:	ORION VS-2		
Sample Numbers:	L751256-22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Sample Duplicate

L751256-22

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Specific Conductance	1	1200	1200	0	20	

Sample Duplicate

L751382-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Specific Conductance	1	740	745	0.67	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773477
Analysis Date:	3/4/2015 2:18:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L751256-11, -13, -14, -15, -16, -18, -19, -20, -21, -22		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8460	96.1	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8500	96.6	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8460	96.1	8500	96.6	85 - 115	0.47	5		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773484
Analysis Date:	3/6/2015 6:57:00 AM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L751256-23, -24, -25, -26, -27, -28, -29, -30, -31, -32		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8800	100	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8710	99	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8800	100	8710	99	85 - 115	1.03	5		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773487
Analysis Date:	3/6/2015 7:22:00 AM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -33, -34, -36		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8700	98.9	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8730	99.2	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8700	98.9	8730	99.2	85 - 115	0.34	5		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773490
Analysis Date:	3/6/2015 6:35:00 AM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L751256-37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Dissolved Solids	DSOLIDS	< 10.0	< 2.82	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8710	99	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Dissolved Solids	1	8800	8750	99.4	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
Dissolved Solids	1	8800	8710	99	8750	99.4	85 - 115	0.46	5		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773477
Analysis Date:	3/4/2015 2:18:00 PM	Analyst:	36
Instrument ID:	WETBAL2		
Sample Numbers:	L751256-11, -13, -14, -15, -16, -18, -19, -20, -21, -22		

Sample Duplicate

L751256-22

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	822.67	825.33	0.32	5	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773484
Analysis Date:	3/6/2015 6:57:00 AM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L751256-23, -24, -25, -26, -27, -28, -29, -30, -31, -32		

Sample Duplicate

L751256-23

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	461	463	0.43	5	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773487
Analysis Date:	3/6/2015 7:22:00 AM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -33, -34, -36		

Sample Duplicate

L751256-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	540	544	0.74	5	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Total Dissolved Solids by Method 2540 C-2011		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773490
Analysis Date:	3/6/2015 6:35:00 AM	Analyst:	36
Instrument ID:	WETBAL1		
Sample Numbers:	L751256-37, -38, -39, -40		

Sample Duplicate

L751101-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
Dissolved Solids	1	437	434	0.69	5	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	pH by Method 9040C	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773482
Collection Date:	2/26/2015	Analyst:	661
Analysis Date:	3/4/2015 9:36:00 AM		
Instrument ID:	ORION VS-1		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
pH	1	5.9	5.83	98.8	98.3 - 101.7	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
pH	1	5.9	5.84	99	98.3 - 101.7	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
pH	1	5.9	5.83	98.8	5.84	99	98.3 - 101.7		0.17	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	pH by Method 9040C	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773485
Collection Date:	2/26/2015	Analyst:	661
Analysis Date:	3/4/2015 10:41:00 AM		
Instrument ID:	ORION VS-1		
Sample Numbers:	L751256-10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
pH	1	5.9	5.85	99.2	98.3 - 101.7	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
pH	1	5.9	5.85	99.2	98.3 - 101.7	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
pH	1	5.9	5.85	99.2	5.85	99.2	98.3 - 101.7		0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	pH by Method 9040C	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773634
Collection Date:	2/26/2015	Analyst:	661
Analysis Date:	3/5/2015 1:09:00 PM		
Instrument ID:	ORION VS-1		
Sample Numbers:	L751256-32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
pH	1	5.9	5.85	99.2	98.3 - 101.7	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
pH	1	5.9	5.86	99.3	98.3 - 101.7	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD % RPD	Control RPD Limits	Control RPD Qual
pH	1	5.9	5.85	99.2	5.86	99.3	98.3 - 101.7		0.17	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	pH by Method 9040C	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773482
Collection Date:	2/26/2015	Analyst:	661
Analysis Date:	3/4/2015 9:36:00 AM		
Instrument ID:	ORION VS-1		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09		

Sample Duplicate

L750851-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
pH	1	7.3	7.3	0	1	

Sample Duplicate

L751256-09

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
pH	1	6.5	6.47	0.46	1	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	pH by Method 9040C	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773485
Collection Date:	2/26/2015	Analyst:	661
Analysis Date:	3/4/2015 10:41:00 AM		
Instrument ID:	ORION VS-1		
Sample Numbers:	L751256-10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31		

Sample Duplicate

L751256-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
pH	1	5.2	5.23	0.58	1	

Sample Duplicate

L751256-31

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
pH	1	7.7	7.67	0.39	1	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	pH by Method 9040C	Matrix:	Water - mg/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773634
Collection Date:	2/26/2015	Analyst:	661
Analysis Date:	3/5/2015 1:09:00 PM		
Instrument ID:	ORION VS-1		
Sample Numbers:	L751256-32, -33, -34, -36, -37, -38, -39, -40		

Sample Duplicate

L751148-10

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
pH	1	7.5	78.47	0.4	1	

Sample Duplicate

L751401-01

Analyte	Dil	Sample Result	DUP Result	% RPD	Limit	Qualifier
pH	1	0.0	0.0	0	1	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773848
Analysis Date:	3/6/2015 10:53:00 PM	Analyst:	572
Instrument ID:	CVAA5, CVAA4	Prep Date:	3/5/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -24, -21, -22, -23, -25		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	2.9688	99	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	2.9717	99	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Mercury	1	3	2.9688	99	2.9717	99	85 - 115	0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773849
Analysis Date:	3/6/2015 10:30:00 AM	Analyst:	628
Instrument ID:	CVAA4	Prep Date:	3/5/2015
Sample Numbers:	L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Mercury	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.1870	106	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury	1	3	3.2213	107	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Mercury	1	3	3.1870	106	3.2213	107	85 - 115	1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773850
Analysis Date:	3/6/2015 5:37:00 PM	Analyst:	572
Instrument ID:	CVAA3	Prep Date:	3/5/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Mercury,Dissolved	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury,Dissolved	1	3	3.0316	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury,Dissolved	1	3	3.0860	103	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Mercury,Dissolved	1	3	3.0316	101	3.0860	103	85 - 115	2	20		

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773851
Analysis Date:	3/6/2015 6:47:00 PM	Analyst:	572
Instrument ID:	CVAA3	Prep Date:	3/5/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Mercury,Dissolved	7439-97-6	< 0.200	< 0.0490	

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury,Dissolved	1	3	3.4183	114	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Mercury,Dissolved	1	3	3.2697	109	85 - 115	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec	Control RPD	Qual
Mercury,Dissolved	1	3	3.4183	114	3.2697	109	85 - 115	4	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A	Matrix:	Water - ug/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773848
Collection Date:	2/26/2015	Analyst:	572
Analysis Date:	3/6/2015 10:53:00 PM	Prep Date:	3/5/2015
Instrument ID:	CVAA5, CVAA4		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -24, -21, -22, -23, -25		

Matrix Spike / Matrix Spike Duplicate

L751256-24

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Mercury	1	3	<0.049	3.1713	106	3.4792	116	80 - 120		9	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773849
Analysis Date:	3/6/2015 10:30:00 AM	Analyst:	628
Instrument ID:	CVAA4	Prep Date:	3/5/2015
Sample Numbers:	L751256-26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Matrix Spike / Matrix Spike Duplicate

L751527-02

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Mercury	1	3	<0.049	3.0777	103	3.1998	107	80 - 120		4	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A	Matrix:	Water - ug/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773850
Collection Date:	2/26/2015	Analyst:	572
Analysis Date:	3/6/2015 5:37:00 PM	Prep Date:	3/5/2015
Instrument ID:	CVAA3		
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Matrix Spike / Matrix Spike Duplicate

L751256-24

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Mercury,Dissolved	1	3	<0.049	3.0865	103	3.1038	103	80 - 120		1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Mercury by Method 7470A		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773851
Analysis Date:	3/6/2015 6:47:00 PM	Analyst:	572
Instrument ID:	CVAA3	Prep Date:	3/5/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Matrix Spike / Matrix Spike Duplicate

L751256-25

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Mercury,Dissolved	1	3	<0.049	3.1323	104	2.8790	96	80 - 120	8	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773711
Analysis Date:	3/5/2015 5:58:00 PM	Analyst:	388
Instrument ID:	ICP12, ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Aluminum,Dissolved	7429-90-5	< 0.100	< 0.0350	
Barium,Dissolved	7440-39-3	< 0.00500	< 0.00170	
Beryllium,Dissolved	7440-41-7	< 0.00200	< 0.000700	
Boron,Dissolved	7440-42-8	< 0.200	< 0.0126	
Cadmium,Dissolved	7440-43-9	< 0.00500	< 0.000700	
Calcium,Dissolved	7440-70-2	< 1.00	< 0.0463	
Chromium,Dissolved	7440-47-3	< 0.0100	< 0.00140	
Cobalt,Dissolved	7440-48-4	< 0.0100	< 0.00230	
Copper,Dissolved	7440-50-8	< 0.0200	< 0.00530	
Iron,Dissolved	7439-89-6	< 0.100	< 0.0141	
Magnesium,Dissolved	7439-95-4	< 1.00	< 0.0111	
Manganese,Dissolved	7439-96-5	< 0.0100	< 0.00120	
Nickel,Dissolved	7440-02-0	< 0.0200	< 0.00490	
Potassium,Dissolved	7440-09-7	< 1.00	< 0.102	
Selenium,Dissolved	7782-49-2	< 0.0200	< 0.00740	
Silver,Dissolved	7440-22-4	< 0.0100	< 0.00280	
Sodium,Dissolved	7440-23-5	< 1.00	0.193	
Vanadium,Dissolved	7440-62-2	< 0.0200	0.00241	
Zinc,Dissolved	7440-66-6	< 0.0500	< 0.00590	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773713
Analysis Date:	3/9/2015 2:59:00 AM	Analyst:	678
Instrument ID:	ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Aluminum,Dissolved	7429-90-5	< 0.100	0.0769	J
Barium,Dissolved	7440-39-3	< 0.00500	< 0.00170	
Beryllium,Dissolved	7440-41-7	< 0.00200	< 0.000700	
Boron,Dissolved	7440-42-8	< 0.200	< 0.0126	
Cadmium,Dissolved	7440-43-9	< 0.00500	< 0.000700	
Calcium,Dissolved	7440-70-2	< 1.00	< 0.0463	
Chromium,Dissolved	7440-47-3	< 0.0100	< 0.00140	
Cobalt,Dissolved	7440-48-4	< 0.0100	< 0.00230	
Copper,Dissolved	7440-50-8	< 0.0200	< 0.00530	
Iron,Dissolved	7439-89-6	< 0.100	< 0.0141	
Magnesium,Dissolved	7439-95-4	< 1.00	< 0.0111	
Manganese,Dissolved	7439-96-5	< 0.0100	< 0.00120	
Nickel,Dissolved	7440-02-0	< 0.0200	< 0.00490	
Potassium,Dissolved	7440-09-7	< 1.00	< 0.102	
Selenium,Dissolved	7782-49-2	< 0.0200	< 0.00740	
Silver,Dissolved	7440-22-4	< 0.0100	< 0.00280	
Sodium,Dissolved	7440-23-5	< 1.00	< 0.0985	
Vanadium,Dissolved	7440-62-2	< 0.0200	0.00400	
Zinc,Dissolved	7440-66-6	< 0.0500	< 0.00590	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773711
Analysis Date:	3/5/2015 5:58:00 PM	Analyst:	388
Instrument ID:	ICP12, ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	1	1.0318	103	80 - 120	
Barium,Dissolved	1	1	1.0380	104	80 - 120	
Beryllium,Dissolved	1	1	1.0465	105	80 - 120	
Boron,Dissolved	1	1	1.0490	105	80 - 120	
Cadmium,Dissolved	1	1	1.0601	106	80 - 120	
Calcium,Dissolved	1	10	9.8840	99	80 - 120	
Chromium,Dissolved	1	1	0.9935	99	80 - 120	
Cobalt,Dissolved	1	1	1.0455	105	80 - 120	
Copper,Dissolved	1	1	1.0369	104	80 - 120	
Iron,Dissolved	1	1	1.0185	102	80 - 120	
Magnesium,Dissolved	1	10	9.4208	94	80 - 120	
Manganese,Dissolved	1	0.5	0.5122	102	80 - 120	
Nickel,Dissolved	1	1	1.0272	103	80 - 120	
Potassium,Dissolved	1	10	10.240	102	80 - 120	
Selenium,Dissolved	1	1	1.0784	108	80 - 120	
Silver,Dissolved	1	1	1.0539	105	80 - 120	
Sodium,Dissolved	1	10	9.9462	99	80 - 120	
Vanadium,Dissolved	1	1	1.0514	105	80 - 120	
Zinc,Dissolved	1	1	1.0048	100	80 - 120	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773711
Analysis Date:	3/5/2015 5:58:00 PM	Analyst:	388
Instrument ID:	ICP12, ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	1	1.0158	102	80 - 120	
Barium,Dissolved	1	1	1.0452	105	80 - 120	
Beryllium,Dissolved	1	1	1.0529	105	80 - 120	
Boron,Dissolved	1	1	1.0346	103	80 - 120	
Cadmium,Dissolved	1	1	1.0681	107	80 - 120	
Calcium,Dissolved	1	10	9.9232	99	80 - 120	
Chromium,Dissolved	1	1	0.9988	100	80 - 120	
Cobalt,Dissolved	1	1	1.0542	105	80 - 120	
Copper,Dissolved	1	1	1.0237	102	80 - 120	
Iron,Dissolved	1	1	1.0193	102	80 - 120	
Magnesium,Dissolved	1	10	9.5216	95	80 - 120	
Manganese,Dissolved	1	0.5	0.5153	103	80 - 120	
Nickel,Dissolved	1	1	1.0362	104	80 - 120	
Potassium,Dissolved	1	10	10.264	103	80 - 120	
Selenium,Dissolved	1	1	1.0902	109	80 - 120	
Silver,Dissolved	1	1	1.0621	106	80 - 120	
Sodium,Dissolved	1	10	10.005	100	80 - 120	
Vanadium,Dissolved	1	1	1.0614	106	80 - 120	
Zinc,Dissolved	1	1	1.0072	101	80 - 120	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773711
Analysis Date:	3/5/2015 5:58:00 PM	Analyst:	388
Instrument ID:	ICP12, ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Aluminum,Dissolved	1	1	1.0318	103	1.0158	102	80 - 120	2	20	
Barium,Dissolved	1	1	1.0380	104	1.0452	105	80 - 120	1	20	
Beryllium,Dissolved	1	1	1.0465	105	1.0529	105	80 - 120	1	20	
Boron,Dissolved	1	1	1.0490	105	1.0346	103	80 - 120	1	20	
Cadmium,Dissolved	1	1	1.0601	106	1.0681	107	80 - 120	1	20	
Calcium,Dissolved	1	10	9.8840	99	9.9232	99	80 - 120	0	20	
Chromium,Dissolved	1	1	0.9935	99	0.9988	100	80 - 120	1	20	
Cobalt,Dissolved	1	1	1.0455	105	1.0542	105	80 - 120	1	20	
Copper,Dissolved	1	1	1.0369	104	1.0237	102	80 - 120	1	20	
Iron,Dissolved	1	1	1.0185	102	1.0193	102	80 - 120	0	20	
Magnesium,Dissolved	1	10	9.4208	94	9.5216	95	80 - 120	1	20	
Manganese,Dissolved	1	0.5	0.5122	102	0.5153	103	80 - 120	1	20	
Nickel,Dissolved	1	1	1.0272	103	1.0362	104	80 - 120	1	20	
Potassium,Dissolved	1	10	10.240	102	10.264	103	80 - 120	0	20	
Selenium,Dissolved	1	1	1.0784	108	1.0902	109	80 - 120	1	20	
Silver,Dissolved	1	1	1.0539	105	1.0621	106	80 - 120	1	20	
Sodium,Dissolved	1	10	9.9462	99	10.005	100	80 - 120	1	20	
Vanadium,Dissolved	1	1	1.0514	105	1.0614	106	80 - 120	1	20	
Zinc,Dissolved	1	1	1.0048	100	1.0072	101	80 - 120	0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773713
Analysis Date:	3/9/2015 2:59:00 AM	Analyst:	678
Instrument ID:	ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	1	1.0140	101	80 - 120	
Barium,Dissolved	1	1	1.0656	107	80 - 120	
Beryllium,Dissolved	1	1	1.0566	106	80 - 120	
Boron,Dissolved	1	1	1.0356	104	80 - 120	
Cadmium,Dissolved	1	1	1.0657	107	80 - 120	
Calcium,Dissolved	1	10	10.199	102	80 - 120	
Chromium,Dissolved	1	1	0.9954	100	80 - 120	
Cobalt,Dissolved	1	1	1.0496	105	80 - 120	
Copper,Dissolved	1	1	1.0241	102	80 - 120	
Iron,Dissolved	1	1	1.0480	105	80 - 120	
Magnesium,Dissolved	1	10	9.9740	100	80 - 120	
Manganese,Dissolved	1	0.5	0.5156	103	80 - 120	
Nickel,Dissolved	1	1	1.0326	103	80 - 120	
Potassium,Dissolved	1	10	9.7095	97	80 - 120	
Selenium,Dissolved	1	1	1.0785	108	80 - 120	
Silver,Dissolved	1	1	1.0625	106	80 - 120	
Sodium,Dissolved	1	10	10.769	108	80 - 120	
Vanadium,Dissolved	1	1	1.0425	104	80 - 120	
Zinc,Dissolved	1	1	1.0172	102	80 - 120	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773713
Analysis Date:	3/9/2015 2:59:00 AM	Analyst:	678
Instrument ID:	ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Aluminum,Dissolved	1	1	0.9515	95	80 - 120	
Barium,Dissolved	1	1	1.0323	103	80 - 120	
Beryllium,Dissolved	1	1	1.0212	102	80 - 120	
Boron,Dissolved	1	1	1.0004	100	80 - 120	
Cadmium,Dissolved	1	1	1.0278	103	80 - 120	
Calcium,Dissolved	1	10	9.9087	99	80 - 120	
Chromium,Dissolved	1	1	0.9639	96	80 - 120	
Cobalt,Dissolved	1	1	1.0088	101	80 - 120	
Copper,Dissolved	1	1	0.9951	100	80 - 120	
Iron,Dissolved	1	1	0.9955	100	80 - 120	
Magnesium,Dissolved	1	10	9.6288	96	80 - 120	
Manganese,Dissolved	1	0.5	0.5032	101	80 - 120	
Nickel,Dissolved	1	1	0.9994	100	80 - 120	
Potassium,Dissolved	1	10	9.5356	95	80 - 120	
Selenium,Dissolved	1	1	1.0463	105	80 - 120	
Silver,Dissolved	1	1	1.0325	103	80 - 120	
Sodium,Dissolved	1	10	10.353	104	80 - 120	
Vanadium,Dissolved	1	1	1.0241	102	80 - 120	
Zinc,Dissolved	1	1	0.9928	99	80 - 120	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773713
Analysis Date:	3/9/2015 2:59:00 AM	Analyst:	678
Instrument ID:	ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Aluminum,Dissolved	1	1	1.0140	101	0.9515	95	80 - 120	6	20	
Barium,Dissolved	1	1	1.0656	107	1.0323	103	80 - 120	3	20	
Beryllium,Dissolved	1	1	1.0566	106	1.0212	102	80 - 120	3	20	
Boron,Dissolved	1	1	1.0356	104	1.0004	100	80 - 120	3	20	
Cadmium,Dissolved	1	1	1.0657	107	1.0278	103	80 - 120	4	20	
Calcium,Dissolved	1	10	10.199	102	9.9087	99	80 - 120	3	20	
Chromium,Dissolved	1	1	0.9954	100	0.9639	96	80 - 120	3	20	
Cobalt,Dissolved	1	1	1.0496	105	1.0088	101	80 - 120	4	20	
Copper,Dissolved	1	1	1.0241	102	0.9951	100	80 - 120	3	20	
Iron,Dissolved	1	1	1.0480	105	0.9955	100	80 - 120	5	20	
Magnesium,Dissolved	1	10	9.9740	100	9.6288	96	80 - 120	4	20	
Manganese,Dissolved	1	0.5	0.5156	103	0.5032	101	80 - 120	2	20	
Nickel,Dissolved	1	1	1.0326	103	0.9994	100	80 - 120	3	20	
Potassium,Dissolved	1	10	9.7095	97	9.5356	95	80 - 120	2	20	
Selenium,Dissolved	1	1	1.0785	108	1.0463	105	80 - 120	3	20	
Silver,Dissolved	1	1	1.0625	106	1.0325	103	80 - 120	3	20	
Sodium,Dissolved	1	10	10.769	108	10.353	104	80 - 120	4	20	
Vanadium,Dissolved	1	1	1.0425	104	1.0241	102	80 - 120	2	20	
Zinc,Dissolved	1	1	1.0172	102	0.9928	99	80 - 120	2	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773711
Analysis Date:	3/5/2015 5:58:00 PM	Analyst:	388
Instrument ID:	ICP12, ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Serial Dilution

L751256-01

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum,Dissolved	5	<0.035	<0.175		10	
Barium,Dissolved	5	0.1159	0.1127	3	10	
Beryllium,Dissolved	5	<0.0007	<0.0035		10	
Boron,Dissolved	5	0.1707	0.2030	19	10	
Cadmium,Dissolved	5	<0.0007	<0.0035		10	
Calcium,Dissolved	5	124.60	109.81	12	10	
Chromium,Dissolved	5	0.0016	<0.007	97	10	
Cobalt,Dissolved	5	<0.0023	<0.0115		10	
Copper,Dissolved	5	<0.0053	<0.0265		10	
Iron,Dissolved	5	<0.0141	<0.0705		10	
Magnesium,Dissolved	5	13.499	11.740	13	10	
Manganese,Dissolved	5	<0.0012	<0.006		10	
Nickel,Dissolved	5	<0.0049	<0.0245		10	
Potassium,Dissolved	5	2.4391	1.9792	19	10	
Selenium,Dissolved	5	<0.0074	<0.037		10	
Silver,Dissolved	5	<0.0028	<0.014		10	
Sodium,Dissolved	5	43.896	37.224	15	10	
Vanadium,Dissolved	5	0.0229	0.0309	35	10	
Zinc,Dissolved	5	0.0060	<0.0295	232	10	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773711
Analysis Date:	3/5/2015 5:58:00 PM	Analyst:	388
Instrument ID:	ICP12, ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24		

Matrix Spike / Matrix Spike Duplicate

L751256-01

Analyte	Dil	Spike		Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD Qual
		Value											
Aluminum,Dissolved	1	1	<0.035	1.0871	109	1.0643	106	75 - 125			2	20	
Barium,Dissolved	1	1	0.1159	1.1659	105	1.1574	104	75 - 125			1	20	
Beryllium,Dissolved	1	1	<0.0007	1.0862	109	1.0716	107	75 - 125			1	20	
Boron,Dissolved	1	1	0.1707	1.2209	105	1.2253	105	75 - 125			0	20	
Cadmium,Dissolved	1	1	<0.0007	1.1181	112	1.1081	111	75 - 125			1	20	
Calcium,Dissolved	1	10	124.60	136.83	122	134.43	98	75 - 125			2	20	
Chromium,Dissolved	1	1	0.0016	1.0000	100	1.0003	100	75 - 125			0	20	
Cobalt,Dissolved	1	1	<0.0023	1.0923	109	1.0888	109	75 - 125			0	20	
Copper,Dissolved	1	1	<0.0053	1.0361	104	1.0454	104	75 - 125			1	20	
Iron,Dissolved	1	1	<0.0141	0.9920	99	0.9907	99	75 - 125			0	20	
Magnesium,Dissolved	1	10	13.499	23.241	97	22.910	94	75 - 125			1	20	
Manganese,Dissolved	1	0.5	<0.0012	0.5155	102	0.5128	102	75 - 125			1	20	
Nickel,Dissolved	1	1	<0.0049	1.0675	107	1.0665	107	75 - 125			0	20	
Potassium,Dissolved	1	10	2.4391	12.897	105	12.920	105	75 - 125			0	20	
Selenium,Dissolved	1	1	<0.0074	1.1727	117	1.1629	116	75 - 125			1	20	
Silver,Dissolved	1	1	<0.0028	1.0990	110	1.1020	110	75 - 125			0	20	
Sodium,Dissolved	1	10	43.896	54.037	101	54.071	102	75 - 125			0	20	
Vanadium,Dissolved	1	1	0.0229	1.0920	107	1.0899	107	75 - 125			0	20	
Zinc,Dissolved	1	1	0.0060	1.0335	103	1.0197	101	75 - 125			1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773713
Analysis Date:	3/9/2015 2:59:00 AM	Analyst:	678
Instrument ID:	ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Serial Dilution

L751598-01

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Aluminum,Dissolved	5	0.1463	0.2925	100	10	
Barium,Dissolved	5	0.0654	0.0647	1	10	
Beryllium,Dissolved	5	<0.0007	<0.0035		10	
Boron,Dissolved	5	0.0692	0.1231	0	10	
Cadmium,Dissolved	5	<0.0007	<0.0035		10	
Calcium,Dissolved	5	56.423	52.090	8	10	
Chromium,Dissolved	5	<0.0014	<0.007		10	
Cobalt,Dissolved	5	<0.0023	<0.0115		10	
Copper,Dissolved	5	<0.0053	<0.0265		10	
Iron,Dissolved	5	0.0810	<0.0705	0	10	
Magnesium,Dissolved	5	3.6171	3.7309	3	10	
Manganese,Dissolved	5	0.0031	<0.006	0	10	
Nickel,Dissolved	5	<0.0049	<0.0245		10	
Potassium,Dissolved	5	2.8448	2.6972	5	10	
Selenium,Dissolved	5	0.0412	<0.037	35	10	
Silver,Dissolved	5	<0.0028	<0.014		10	
Sodium,Dissolved	5	15.633	15.168	3	10	
Vanadium,Dissolved	5	0.0072	0.0469	550	10	
Zinc,Dissolved	5	<0.0059	<0.0295		10	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6010B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773713
Analysis Date:	3/9/2015 2:59:00 AM	Analyst:	678
Instrument ID:	ICP13	Prep Date:	3/4/2015
Sample Numbers:	L751256-25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Matrix Spike / Matrix Spike Duplicate

L751598-01

Analyte	Dil	Spike		Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
		Value											
Aluminum,Dissolved	1	1	0.1463	0.9798	83	1.0832	94	75 - 125			10	20	
Barium,Dissolved	1	1	0.0654	1.0938	103	1.1149	105	75 - 125			2	20	
Beryllium,Dissolved	1	1	<0.0007	1.0149	101	1.0495	105	75 - 125			3	20	
Boron,Dissolved	1	1	0.0692	1.0371	97	1.0640	99	75 - 125			3	20	
Cadmium,Dissolved	1	1	<0.0007	1.0445	104	1.0650	106	75 - 125			2	20	
Calcium,Dissolved	1	10	56.423	66.919	105	67.863	114	75 - 125			1	20	
Chromium,Dissolved	1	1	<0.0014	0.9588	96	0.9883	99	75 - 125			3	20	
Cobalt,Dissolved	1	1	<0.0023	1.0301	103	1.0536	105	75 - 125			2	20	
Copper,Dissolved	1	1	<0.0053	0.9870	99	1.0133	101	75 - 125			3	20	
Iron,Dissolved	1	1	0.0810	1.0348	95	1.0650	98	75 - 125			3	20	
Magnesium,Dissolved	1	10	3.6171	13.081	95	13.409	98	75 - 125			2	20	
Manganese,Dissolved	1	0.5	0.0031	0.5024	100	0.5156	102	75 - 125			3	20	
Nickel,Dissolved	1	1	<0.0049	1.0136	101	1.0363	103	75 - 125			2	20	
Potassium,Dissolved	1	10	2.8448	12.311	95	12.587	97	75 - 125			2	20	
Selenium,Dissolved	1	1	0.0412	1.0704	103	1.0981	106	75 - 125			3	20	
Silver,Dissolved	1	1	<0.0028	1.0400	104	1.0658	107	75 - 125			2	20	
Sodium,Dissolved	1	10	15.633	25.278	96	26.109	105	75 - 125			3	20	
Vanadium,Dissolved	1	1	0.0072	1.0281	102	1.0435	104	75 - 125			1	20	
Zinc,Dissolved	1	1	<0.0059	0.9883	98	1.0205	102	75 - 125			3	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6020		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773842
Analysis Date:	3/6/2015 5:34:00 PM	Analyst:	428
Instrument ID:	ICPMS8	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Antimony,Dissolved	7440-36-0	< 2.00	0.892	
Arsenic,Dissolved	7440-38-2	< 2.00	0.594	
Lead,Dissolved	7439-92-1	< 2.00	0.798	
Molybdenum,Dissolved	7439-98-7	< 5.00	0.817	
Thallium,Dissolved	7440-28-0	< 2.00	0.748	
Uranium,Dissolved	7440-61-1	< 10.0	< 0.330	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6020		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773908
Analysis Date:	3/8/2015 1:12:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	3/5/2015
Sample Numbers:	L751256-24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Antimony,Dissolved	7440-36-0	< 2.00	0.286	
Arsenic,Dissolved	7440-38-2	< 2.00	< 0.250	
Lead,Dissolved	7439-92-1	< 2.00	0.372	
Molybdenum,Dissolved	7439-98-7	< 5.00	< 0.140	
Thallium,Dissolved	7440-28-0	< 2.00	0.257	
Uranium,Dissolved	7440-61-1	< 10.0	< 0.330	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6020		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773842
Analysis Date:	3/6/2015 5:34:00 PM	Analyst:	428
Instrument ID:	ICPMS8	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Antimony,Dissolved	1	50	57.391	115	80 - 120	
Arsenic,Dissolved	1	50	56.928	114	80 - 120	
Lead,Dissolved	1	50	54.037	108	80 - 120	
Molybdenum,Dissolved	1	50	53.238	106	80 - 120	
Thallium,Dissolved	1	50	52.693	105	80 - 120	
Uranium,Dissolved	1	50	52.962	106	80 - 120	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Antimony,Dissolved	1	50	58.030	116	80 - 120	
Arsenic,Dissolved	1	50	52.949	106	80 - 120	
Lead,Dissolved	1	50	54.023	108	80 - 120	
Molybdenum,Dissolved	1	50	53.670	107	80 - 120	
Thallium,Dissolved	1	50	53.512	107	80 - 120	
Uranium,Dissolved	1	50	53.320	107	80 - 120	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Antimony,Dissolved	1	50	57.391	115	58.030	116	80 - 120	1	20	
Arsenic,Dissolved	1	50	56.928	114	52.949	106	80 - 120	7	20	
Lead,Dissolved	1	50	54.037	108	54.023	108	80 - 120	0	20	
Molybdenum,Dissolved	1	50	53.238	106	53.670	107	80 - 120	1	20	
Thallium,Dissolved	1	50	52.693	105	53.512	107	80 - 120	2	20	
Uranium,Dissolved	1	50	52.962	106	53.320	107	80 - 120	1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6020	Matrix:	Water - ug/L
Project No:	227000	EPA ID:	TN00003
Project:	Lovington Lea Refinery	Analytic Batch:	WG773908
Collection Date:	2/26/2015	Analyst:	117
Analysis Date:	3/8/2015 1:12:00 PM	Prep Date:	3/5/2015
Instrument ID:	ICPMS8		
Sample Numbers:	L751256-24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Antimony,Dissolved	1	50	53.633	107	80 - 120	
Arsenic,Dissolved	1	50	52.202	104	80 - 120	
Lead,Dissolved	1	50	51.992	104	80 - 120	
Molybdenum,Dissolved	1	50	51.297	103	80 - 120	
Thallium,Dissolved	1	50	51.204	102	80 - 120	
Uranium,Dissolved	1	50	51.332	103	80 - 120	

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Antimony,Dissolved	1	50	53.324	107	80 - 120	
Arsenic,Dissolved	1	50	53.413	107	80 - 120	
Lead,Dissolved	1	50	51.280	103	80 - 120	
Molybdenum,Dissolved	1	50	51.027	102	80 - 120	
Thallium,Dissolved	1	50	51.172	102	80 - 120	
Uranium,Dissolved	1	50	51.446	103	80 - 120	

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
Antimony,Dissolved	1	50	53.633	107	53.324	107	80 - 120	1	20	
Arsenic,Dissolved	1	50	52.202	104	53.413	107	80 - 120	2	20	
Lead,Dissolved	1	50	51.992	104	51.280	103	80 - 120	1	20	
Molybdenum,Dissolved	1	50	51.297	103	51.027	102	80 - 120	1	20	
Thallium,Dissolved	1	50	51.204	102	51.172	102	80 - 120	0	20	
Uranium,Dissolved	1	50	51.332	103	51.446	103	80 - 120	0	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6020		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773842
Analysis Date:	3/6/2015 5:34:00 PM	Analyst:	428
Instrument ID:	ICPMS8	Prep Date:	3/4/2015
Sample Numbers:	L751256-01, -02, -03, -06, -07, -08, -09, -10, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23		

Serial Dilution

L750234-05

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Antimony,Dissolved	5	<0.21	<1.05		10	
Arsenic,Dissolved	5	0.5322	<1.25	0	10	
Lead,Dissolved	5	0.4525	<1.2	0	10	
Molybdenum,Dissolved	5	0.1493	<0.7	0	10	
Thallium,Dissolved	5	0.3490	<0.95	0	10	
Uranium,Dissolved	5	<0.33	<1.65		10	

Matrix Spike / Matrix Spike Duplicate

L750234-05

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Antimony,Dissolved	1	50	<0.21	56.852	113	59.007	118	75 - 125	4	20	
Arsenic,Dissolved	1	50	0.5322	55.826	111	54.053	107	75 - 125	3	20	
Lead,Dissolved	1	50	0.4525	53.798	107	52.408	104	75 - 125	3	20	
Molybdenum,Dissolved	1	50	0.1493	52.998	106	53.780	107	75 - 125	1	20	
Thallium,Dissolved	1	50	0.3490	52.579	104	51.792	103	75 - 125	2	20	
Uranium,Dissolved	1	50	<0.33	53.150	106	51.565	103	75 - 125	3	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Trace Metals by Method 6020		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773908
Analysis Date:	3/8/2015 1:12:00 PM	Analyst:	117
Instrument ID:	ICPMS8	Prep Date:	3/5/2015
Sample Numbers:	L751256-24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Serial Dilution

L751256-24

Analyte	Dil	Sample Result	SD Result	% RPD	Limit	Qualifier
Antimony,Dissolved	5	0.2334	<1.05	139	10	
Arsenic,Dissolved	5	5.5200	5.2287	5	10	
Lead,Dissolved	5	0.4131	<1.2	63	10	
Molybdenum,Dissolved	5	1.0854	1.0645	2	10	
Thallium,Dissolved	5	0.2672	<0.95	39	10	
Uranium,Dissolved	5	3.3309	3.3286	0	10	

Matrix Spike / Matrix Spike Duplicate

L751256-24

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Antimony,Dissolved	1	50	0.2334	51.559	103	54.064	108	75 - 125	5	20	
Arsenic,Dissolved	1	50	5.5200	56.248	101	58.682	106	75 - 125	4	20	
Lead,Dissolved	1	50	0.4131	50.808	101	52.833	105	75 - 125	4	20	
Molybdenum,Dissolved	1	50	1.0854	50.514	99	52.321	102	75 - 125	4	20	
Thallium,Dissolved	1	50	0.2672	50.560	101	51.894	103	75 - 125	3	20	
Uranium,Dissolved	1	50	3.3309	54.578	102	55.449	104	75 - 125	2	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 1.00	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00125	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Hexachloro-1,3-butadiene	87-68-3	< 0.00100	< 0.000256	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
tert-Butylbenzene	98-06-6	< 0.00100	< 0.000399	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 1.00	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00125	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Hexachloro-1,3-butadiene	87-68-3	< 0.00100	< 0.000256	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
tert-Butylbenzene	98-06-6	< 0.00100	< 0.000399	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 1.00	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00125	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Hexachloro-1,3-butadiene	87-68-3	< 0.00100	< 0.000256	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
tert-Butylbenzene	98-06-6	< 0.00100	< 0.000399	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
1,1,1-Trichloroethane	71-55-6	< 0.00100	< 0.000319	
1,1,2,2-Tetrachloroethane	79-34-5	< 0.00100	< 0.000130	
1,1,2-Trichloroethane	79-00-5	< 0.00100	< 0.000383	
1,1-Dichloroethane	75-34-3	< 0.00100	< 0.000259	
1,1-Dichloroethene	75-35-4	< 0.00100	< 0.000398	
1,2,4-Trimethylbenzene	95-63-6	< 0.00100	< 0.000373	
1,2-Dibromoethane	106-93-4	< 0.00100	< 0.000381	
1,2-Dichloroethane	107-06-2	< 0.00100	< 0.000361	
1,2-Dichloropropane	78-87-5	< 0.00100	< 0.000306	
1,3,5-Trimethylbenzene	108-67-8	< 0.00100	< 0.000387	
2-Butanone (MEK)	78-93-3	< 0.0100	< 0.00393	
2-Hexanone	591-78-6	< 0.0100	< 0.00382	
4-Methyl-2-pentanone (MIBK)	108-10-1	< 0.0100	< 0.00214	
Acetone	67-64-1	< 1.00	< 0.0100	
Benzene	71-43-2	< 0.00100	< 0.000331	
Bromodichloromethane	75-27-4	< 0.00125	< 0.000380	
Bromoform	75-25-2	< 0.00100	< 0.000469	
Bromomethane	74-83-9	< 0.00500	< 0.000866	
Carbon disulfide	75-15-0	< 0.00100	< 0.000275	
Carbon tetrachloride	56-23-5	< 0.00100	< 0.000379	
Chlorobenzene	108-90-7	< 0.00100	< 0.000348	
Chlorodibromomethane	124-48-1	< 0.00100	< 0.000327	
Chloroethane	75-00-3	< 0.00500	< 0.000453	
Chloroform	67-66-3	< 0.00500	< 0.000324	
Chloromethane	74-87-3	< 0.00250	< 0.000276	
cis-1,2-Dichloroethene	156-59-2	< 0.00100	< 0.000260	
cis-1,3-Dichloropropene	10061-01-5	< 0.00100	< 0.000418	
Ethylbenzene	100-41-4	< 0.00100	< 0.000384	
Hexachloro-1,3-butadiene	87-68-3	< 0.00100	< 0.000256	
Isopropylbenzene	98-82-8	< 0.00100	< 0.000326	
Methyl tert-butyl ether	1634-04-4	< 0.00100	< 0.000367	
Methylene Chloride	75-09-2	< 0.00500	< 0.00100	
Naphthalene	91-20-3	< 0.00500	< 0.00100	
n-Butylbenzene	104-51-8	< 0.00100	< 0.000361	
n-Propylbenzene	103-65-1	< 0.00100	< 0.000349	
p-Isopropyltoluene	99-87-6	< 0.00100	< 0.000350	
sec-Butylbenzene	135-98-8	< 0.00100	< 0.000365	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Styrene	100-42-5	< 0.00100	< 0.000307	
tert-Butylbenzene	98-06-6	< 0.00100	< 0.000399	
Tetrachloroethene	127-18-4	< 0.00100	< 0.000372	
Toluene	108-88-3	< 0.00500	< 0.000780	
trans-1,2-Dichloroethene	156-60-5	< 0.00100	< 0.000396	
trans-1,3-Dichloropropene	10061-02-6	< 0.00100	< 0.000419	
Trichloroethene	79-01-6	< 0.00100	< 0.000398	
Vinyl chloride	75-01-4	< 0.00100	< 0.000259	
Xylenes, Total	1330-20-7	< 0.00300	< 0.00106	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0226	90.4	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0252	101	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0225	90.1	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0238	95.2	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0223	89.2	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0206	82.3	75 - 123	
1,2-Dibromoethane	1	0.025	0.0224	89.8	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0209	83.5	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0254	102	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0209	83.8	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1289	103	55 - 149	
2-Hexanone	1	0.125	0.1275	102	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1386	111	70.5 - 133	
Acetone	1	0.125	0.1145	91.6	35.6 - 163	
Benzene	1	0.025	0.0210	83.8	74.8 - 121	
Bromodichloromethane	1	0.025	0.0239	95.7	75.1 - 116	
Bromoform	1	0.025	0.0244	97.7	67.5 - 130	
Bromomethane	1	0.025	0.0316	126	49.9 - 162	
Carbon disulfide	1	0.025	0.0188	75.1	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0229	91.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0215	85.9	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0232	92.8	74 - 121	
Chloroethane	1	0.025	0.0372	149	61.7 - 135	J4
Chloroform	1	0.025	0.0221	88.3	76 - 121	
Chloromethane	1	0.025	0.0239	95.8	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0221	88.5	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0238	95.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0211	84.4	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0254	102	64.7 - 129	
Isopropylbenzene	1	0.025	0.0214	85.6	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0227	91	71.2 - 126	
Methylene Chloride	1	0.025	0.0213	85	70.3 - 120	
Naphthalene	1	0.025	0.0222	89	68.4 - 128	
n-Butylbenzene	1	0.025	0.0237	95	76.2 - 126	
n-Propylbenzene	1	0.025	0.0216	86.3	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0217	87	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0213	85.2	74.4 - 127	
Styrene	1	0.025	0.0215	86.1	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0216	86.6	75.3 - 126	
Tetrachloroethene	1	0.025	0.0220	87.9	72.6 - 126	
Toluene	1	0.025	0.0218	87.3	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0224	89.7	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0241	96.5	74.3 - 123	
Trichloroethene	1	0.025	0.0219	87.5	77.7 - 118	
Vinyl chloride	1	0.025	0.0249	99.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0628	83.8	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: 227000 Matrix: Water - mg/L
 Project: Lovington Lea Refinery EPA ID: TN00003
 Collection Date: 2/26/2015 **Analytic Batch: WG773564**
 Analysis Date: 3/9/2015 12:10:00 AM Analyst: 621
 Instrument ID: VOCMS7
 Sample Numbers: L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0224	89.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0251	101	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0218	87.1	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0233	93.3	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0222	89	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0205	82	75 - 123	
1,2-Dibromoethane	1	0.025	0.0226	90.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0205	82.1	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0253	101	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0209	83.6	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1283	103	55 - 149	
2-Hexanone	1	0.125	0.1243	99.5	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1336	107	70.5 - 133	
Acetone	1	0.125	0.1105	88.4	35.6 - 163	
Benzene	1	0.025	0.0206	82.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0237	94.8	75.1 - 116	
Bromoform	1	0.025	0.0238	95.4	67.5 - 130	
Bromomethane	1	0.025	0.0317	127	49.9 - 162	
Carbon disulfide	1	0.025	0.0184	73.6	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0228	91.1	70.2 - 123	
Chlorobenzene	1	0.025	0.0214	85.5	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0230	91.9	74 - 121	
Chloroethane	1	0.025	0.0365	146	61.7 - 135	J4
Chloroform	1	0.025	0.0220	87.8	76 - 121	
Chloromethane	1	0.025	0.0233	93.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0225	89.8	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0235	94.1	78.2 - 120	
Ethylbenzene	1	0.025	0.0213	85.2	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0255	102	64.7 - 129	
Isopropylbenzene	1	0.025	0.0217	86.9	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0221	88.6	71.2 - 126	
Methylene Chloride	1	0.025	0.0202	80.6	70.3 - 120	
Naphthalene	1	0.025	0.0217	86.6	68.4 - 128	
n-Butylbenzene	1	0.025	0.0236	94.6	76.2 - 126	
n-Propylbenzene	1	0.025	0.0218	87.2	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0222	88.7	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0216	86.5	74.4 - 127	
Styrene	1	0.025	0.0217	86.8	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0218	87.3	75.3 - 126	
Tetrachloroethene	1	0.025	0.0218	87.3	72.6 - 126	
Toluene	1	0.025	0.0218	87.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0218	87.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0242	96.7	74.3 - 123	
Trichloroethene	1	0.025	0.0216	86.2	77.7 - 118	
Vinyl chloride	1	0.025	0.0242	96.7	65.9 - 128	
Xylenes, Total	1	0.075	0.0626	83.5	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: 227000 Matrix: Water - mg/L
 Project: Lovington Lea Refinery EPA ID: TN00003
 Collection Date: 2/26/2015 Analytic Batch: WG773564
 Analysis Date: 3/9/2015 12:10:00 AM Analyst: 621
 Instrument ID: VOCMS7
 Sample Numbers: L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1-Trichloroethane	1	0.025	0.0226	90.4	0.0224	89.6	73.2 - 123		0.89	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0252	101	0.0251	101	70.7 - 122		0.31	20
1,1,2-Trichloroethane	1	0.025	0.0225	90.1	0.0218	87.1	77.7 - 118		3.42	20
1,1-Dichloroethane	1	0.025	0.0238	95.2	0.0233	93.3	70.7 - 126		2.04	20
1,1-Dichloroethene	1	0.025	0.0223	89.2	0.0222	89	67.8 - 129		0.28	20
1,2,4-Trimethylbenzene	1	0.025	0.0206	82.3	0.0205	82	75 - 123		0.28	20
1,2-Dibromoethane	1	0.025	0.0224	89.8	0.0226	90.5	76.6 - 121		0.76	20
1,2-Dichloroethane	1	0.025	0.0209	83.5	0.0205	82.1	68.8 - 124		1.69	20
1,2-Dichloropropane	1	0.025	0.0254	102	0.0253	101	76.5 - 119		0.64	20
1,3,5-Trimethylbenzene	1	0.025	0.0209	83.8	0.0209	83.6	75.6 - 124		0.23	20
2-Butanone (MEK)	1	0.125	0.1289	103	0.1283	103	55 - 149		0.43	20
2-Hexanone	1	0.125	0.1275	102	0.1243	99.5	65.6 - 144		2.53	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1386	111	0.1336	107	70.5 - 133		3.61	20
Acetone	1	0.125	0.1145	91.6	0.1105	88.4	35.6 - 163		3.52	23.9
Benzene	1	0.025	0.0210	83.8	0.0206	82.5	74.8 - 121		1.61	20
Bromodichloromethane	1	0.025	0.0239	95.7	0.0237	94.8	75.1 - 116		0.9	20
Bromoform	1	0.025	0.0244	97.7	0.0238	95.4	67.5 - 130		2.44	20
Bromomethane	1	0.025	0.0316	126	0.0317	127	49.9 - 162		0.23	20
Carbon disulfide	1	0.025	0.0188	75.1	0.0184	73.6	64.6 - 140		1.91	20
Carbon tetrachloride	1	0.025	0.0229	91.5	0.0228	91.1	70.2 - 123		0.42	20
Chlorobenzene	1	0.025	0.0215	85.9	0.0214	85.5	78.1 - 119		0.44	20
Chlorodibromomethane	1	0.025	0.0232	92.8	0.0230	91.9	74 - 121		1.04	20
Chloroethane	1	0.025	0.0372	149	0.0365	146	61.7 - 135	J4	1.66	20
Chloroform	1	0.025	0.0221	88.3	0.0220	87.8	76 - 121		0.51	20
Chloromethane	1	0.025	0.0239	95.8	0.0233	93.1	61.5 - 129		2.88	20
cis-1,2-Dichloroethene	1	0.025	0.0221	88.5	0.0225	89.8	76 - 119		1.51	20
cis-1,3-Dichloropropene	1	0.025	0.0238	95.4	0.0235	94.1	78.2 - 120		1.35	20
Ethylbenzene	1	0.025	0.0211	84.4	0.0213	85.2	78.8 - 122		0.91	20
Hexachloro-1,3-butadiene	1	0.025	0.0254	102	0.0255	102	64.7 - 129		0.17	20
Isopropylbenzene	1	0.025	0.0214	85.6	0.0217	86.9	78.6 - 132		1.46	20
Methyl tert-butyl ether	1	0.025	0.0227	91	0.0221	88.6	71.2 - 126		2.69	20
Methylene Chloride	1	0.025	0.0213	85	0.0202	80.6	70.3 - 120		5.28	20
Naphthalene	1	0.025	0.0222	89	0.0217	86.6	68.4 - 128		2.68	20
n-Butylbenzene	1	0.025	0.0237	95	0.0236	94.6	76.2 - 126		0.41	20
n-Propylbenzene	1	0.025	0.0216	86.3	0.0218	87.2	78.2 - 122		1.01	20
p-Isopropyltoluene	1	0.025	0.0217	87	0.0222	88.7	74 - 131		2	20

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	% RPD	Control RPD Limits	Qual
sec-Butylbenzene	1	0.025	0.0213	85.2	0.0216	86.5	74.4 - 127		1.43	20	
Styrene	1	0.025	0.0215	86.1	0.0217	86.8	80.4 - 126		0.77	20	
tert-Butylbenzene	1	0.025	0.0216	86.6	0.0218	87.3	75.3 - 126		0.84	20	
Tetrachloroethene	1	0.025	0.0220	87.9	0.0218	87.3	72.6 - 126		0.68	20	
Toluene	1	0.025	0.0218	87.3	0.0218	87.1	79.7 - 116		0.17	20	
trans-1,2-Dichloroethene	1	0.025	0.0224	89.7	0.0218	87.3	72.6 - 121		2.77	20	
trans-1,3-Dichloropropene	1	0.025	0.0241	96.5	0.0242	96.7	74.3 - 123		0.15	20	
Trichloroethene	1	0.025	0.0219	87.5	0.0216	86.2	77.7 - 118		1.48	20	
Vinyl chloride	1	0.025	0.0249	99.7	0.0242	96.7	65.9 - 128		3.05	20	
Xylenes, Total	1	0.075	0.0628	83.8	0.0626	83.5	78.7 - 121		0.31	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0220	87.9	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0229	91.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0237	94.9	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0213	85	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0201	80.4	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0233	93.2	75 - 123	
1,2-Dibromoethane	1	0.025	0.0236	94.4	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0222	88.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0226	90.4	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.6	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1050	84	55 - 149	
2-Hexanone	1	0.125	0.1071	85.7	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1104	88.3	70.5 - 133	
Acetone	1	0.125	0.0969	77.6	35.6 - 163	
Benzene	1	0.025	0.0210	83.9	74.8 - 121	
Bromodichloromethane	1	0.025	0.0235	94	75.1 - 116	
Bromoform	1	0.025	0.0246	98.6	67.5 - 130	
Bromomethane	1	0.025	0.0329	132	49.9 - 162	
Carbon disulfide	1	0.025	0.0185	74.1	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0228	91	70.2 - 123	
Chlorobenzene	1	0.025	0.0244	97.5	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0247	98.9	74 - 121	
Chloroethane	1	0.025	0.0289	116	61.7 - 135	
Chloroform	1	0.025	0.0208	83.1	76 - 121	
Chloromethane	1	0.025	0.0192	76.9	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0213	85.2	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0222	88.9	78.2 - 120	
Ethylbenzene	1	0.025	0.0242	96.8	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0223	89.3	64.7 - 129	
Isopropylbenzene	1	0.025	0.0241	96.5	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0210	83.8	71.2 - 126	
Methylene Chloride	1	0.025	0.0202	81	70.3 - 120	
Naphthalene	1	0.025	0.0206	82.5	68.4 - 128	
n-Butylbenzene	1	0.025	0.0233	93.1	76.2 - 126	
n-Propylbenzene	1	0.025	0.0237	94.9	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0239	95.5	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0238	95.1	74.4 - 127	
Styrene	1	0.025	0.0228	91.2	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0237	94.9	75.3 - 126	
Tetrachloroethene	1	0.025	0.0255	102	72.6 - 126	
Toluene	1	0.025	0.0221	88.2	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0204	81.4	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0234	93.5	74.3 - 123	
Trichloroethene	1	0.025	0.0241	96.5	77.7 - 118	
Vinyl chloride	1	0.025	0.0239	95.4	65.9 - 128	
Xylenes, Total	1	0.075	0.0720	96	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0213	85.3	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0225	90	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0235	94.1	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0203	81.3	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0197	79	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0226	90.4	75 - 123	
1,2-Dibromoethane	1	0.025	0.0235	94	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0215	86	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0223	89	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0234	93.6	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1049	83.9	55 - 149	
2-Hexanone	1	0.125	0.1085	86.8	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1099	87.9	70.5 - 133	
Acetone	1	0.125	0.0910	72.8	35.6 - 163	
Benzene	1	0.025	0.0206	82.4	74.8 - 121	
Bromodichloromethane	1	0.025	0.0232	92.8	75.1 - 116	
Bromoform	1	0.025	0.0246	98.3	67.5 - 130	
Bromomethane	1	0.025	0.0311	124	49.9 - 162	
Carbon disulfide	1	0.025	0.0181	72.2	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0221	88.6	70.2 - 123	
Chlorobenzene	1	0.025	0.0239	95.4	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0241	96.2	74 - 121	
Chloroethane	1	0.025	0.0283	113	61.7 - 135	
Chloroform	1	0.025	0.0203	81.2	76 - 121	
Chloromethane	1	0.025	0.0191	76.3	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0208	83	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0219	87.8	78.2 - 120	
Ethylbenzene	1	0.025	0.0234	93.5	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0226	90.4	64.7 - 129	
Isopropylbenzene	1	0.025	0.0235	94	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0208	83.2	71.2 - 126	
Methylene Chloride	1	0.025	0.0200	80.1	70.3 - 120	
Naphthalene	1	0.025	0.0209	83.5	68.4 - 128	
n-Butylbenzene	1	0.025	0.0229	91.8	76.2 - 126	
n-Propylbenzene	1	0.025	0.0230	92	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0233	93.4	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0234	93.4	74.4 - 127	
Styrene	1	0.025	0.0224	89.4	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0232	92.9	75.3 - 126	
Tetrachloroethene	1	0.025	0.0251	100	72.6 - 126	
Toluene	1	0.025	0.0218	87	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0200	80.1	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0232	92.8	74.3 - 123	
Trichloroethene	1	0.025	0.0241	96.4	77.7 - 118	
Vinyl chloride	1	0.025	0.0232	92.8	65.9 - 128	
Xylenes, Total	1	0.075	0.0707	94.2	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: 227000 Matrix: Water - mg/L
 Project: Lovington Lea Refinery EPA ID: TN00003
 Collection Date: 2/26/2015 Analytic Batch: WG773566
 Analysis Date: 3/8/2015 1:34:00 PM Analyst: 621
 Instrument ID: VOCMS24
 Sample Numbers: L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1-Trichloroethane	1	0.025	0.0220	87.9	0.0213	85.3	73.2 - 123	3.01	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0229	91.5	0.0225	90	70.7 - 122	1.57	20	
1,1,2-Trichloroethane	1	0.025	0.0237	94.9	0.0235	94.1	77.7 - 118	0.83	20	
1,1-Dichloroethane	1	0.025	0.0213	85	0.0203	81.3	70.7 - 126	4.42	20	
1,1-Dichloroethene	1	0.025	0.0201	80.4	0.0197	79	67.8 - 129	1.75	20	
1,2,4-Trimethylbenzene	1	0.025	0.0233	93.2	0.0226	90.4	75 - 123	3.05	20	
1,2-Dibromoethane	1	0.025	0.0236	94.4	0.0235	94	76.6 - 121	0.39	20	
1,2-Dichloroethane	1	0.025	0.0222	88.7	0.0215	86	68.8 - 124	3.11	20	
1,2-Dichloropropane	1	0.025	0.0226	90.4	0.0223	89	76.5 - 119	1.6	20	
1,3,5-Trimethylbenzene	1	0.025	0.0239	95.6	0.0234	93.6	75.6 - 124	2.16	20	
2-Butanone (MEK)	1	0.125	0.1050	84	0.1049	83.9	55 - 149	0.08	20	
2-Hexanone	1	0.125	0.1071	85.7	0.1085	86.8	65.6 - 144	1.31	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1104	88.3	0.1099	87.9	70.5 - 133	0.4	20	
Acetone	1	0.125	0.0969	77.6	0.0910	72.8	35.6 - 163	6.34	23.9	
Benzene	1	0.025	0.0210	83.9	0.0206	82.4	74.8 - 121	1.7	20	
Bromodichloromethane	1	0.025	0.0235	94	0.0232	92.8	75.1 - 116	1.28	20	
Bromoform	1	0.025	0.0246	98.6	0.0246	98.3	67.5 - 130	0.31	20	
Bromomethane	1	0.025	0.0329	132	0.0311	124	49.9 - 162	5.69	20	
Carbon disulfide	1	0.025	0.0185	74.1	0.0181	72.2	64.6 - 140	2.52	20	
Carbon tetrachloride	1	0.025	0.0228	91	0.0221	88.6	70.2 - 123	2.73	20	
Chlorobenzene	1	0.025	0.0244	97.5	0.0239	95.4	78.1 - 119	2.19	20	
Chlorodibromomethane	1	0.025	0.0247	98.9	0.0241	96.2	74 - 121	2.69	20	
Chloroethane	1	0.025	0.0289	116	0.0283	113	61.7 - 135	2.42	20	
Chloroform	1	0.025	0.0208	83.1	0.0203	81.2	76 - 121	2.31	20	
Chloromethane	1	0.025	0.0192	76.9	0.0191	76.3	61.5 - 129	0.81	20	
cis-1,2-Dichloroethene	1	0.025	0.0213	85.2	0.0208	83	76 - 119	2.59	20	
cis-1,3-Dichloropropene	1	0.025	0.0222	88.9	0.0219	87.8	78.2 - 120	1.3	20	
Ethylbenzene	1	0.025	0.0242	96.8	0.0234	93.5	78.8 - 122	3.5	20	
Hexachloro-1,3-butadiene	1	0.025	0.0223	89.3	0.0226	90.4	64.7 - 129	1.23	20	
Isopropylbenzene	1	0.025	0.0241	96.5	0.0235	94	78.6 - 132	2.65	20	
Methyl tert-butyl ether	1	0.025	0.0210	83.8	0.0208	83.2	71.2 - 126	0.73	20	
Methylene Chloride	1	0.025	0.0202	81	0.0200	80.1	70.3 - 120	1.11	20	
Naphthalene	1	0.025	0.0206	82.5	0.0209	83.5	68.4 - 128	1.26	20	
n-Butylbenzene	1	0.025	0.0233	93.1	0.0229	91.8	76.2 - 126	1.44	20	
n-Propylbenzene	1	0.025	0.0237	94.9	0.0230	92	78.2 - 122	3.14	20	
p-Isopropyltoluene	1	0.025	0.0239	95.5	0.0233	93.4	74 - 131	2.2	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	% RPD	Control RPD Limits	Qual
sec-Butylbenzene	1	0.025	0.0238	95.1	0.0234	93.4	74.4 - 127		1.76	20	
Styrene	1	0.025	0.0228	91.2	0.0224	89.4	80.4 - 126		2.04	20	
tert-Butylbenzene	1	0.025	0.0237	94.9	0.0232	92.9	75.3 - 126		2.18	20	
Tetrachloroethene	1	0.025	0.0255	102	0.0251	100	72.6 - 126		1.74	20	
Toluene	1	0.025	0.0221	88.2	0.0218	87	79.7 - 116		1.33	20	
trans-1,2-Dichloroethene	1	0.025	0.0204	81.4	0.0200	80.1	72.6 - 121		1.63	20	
trans-1,3-Dichloropropene	1	0.025	0.0234	93.5	0.0232	92.8	74.3 - 123		0.73	20	
Trichloroethene	1	0.025	0.0241	96.5	0.0241	96.4	77.7 - 118		0.11	20	
Vinyl chloride	1	0.025	0.0239	95.4	0.0232	92.8	65.9 - 128		2.77	20	
Xylenes, Total	1	0.075	0.0720	96	0.0707	94.2	78.7 - 121		1.91	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0301	120	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0256	102	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0244	97.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0317	127	70.7 - 126	J4
1,1-Dichloroethene	1	0.025	0.0317	127	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0236	94.2	75 - 123	
1,2-Dibromoethane	1	0.025	0.0251	100	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0323	129	68.8 - 124	J4
1,2-Dichloropropane	1	0.025	0.0295	118	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0234	93.5	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1659	133	55 - 149	
2-Hexanone	1	0.125	0.1390	111	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1513	121	70.5 - 133	
Acetone	1	0.125	0.1463	117	35.6 - 163	
Benzene	1	0.025	0.0288	115	74.8 - 121	
Bromodichloromethane	1	0.025	0.0287	115	75.1 - 116	
Bromoform	1	0.025	0.0259	104	67.5 - 130	
Bromomethane	1	0.025	0.0294	118	49.9 - 162	
Carbon disulfide	1	0.025	0.0296	119	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0289	116	70.2 - 123	
Chlorobenzene	1	0.025	0.0241	96.3	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0244	97.6	74 - 121	
Chloroethane	1	0.025	0.0316	126	61.7 - 135	
Chloroform	1	0.025	0.0300	120	76 - 121	
Chloromethane	1	0.025	0.0290	116	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0282	113	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0281	112	78.2 - 120	
Ethylbenzene	1	0.025	0.0247	98.7	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0222	88.6	64.7 - 129	
Isopropylbenzene	1	0.025	0.0241	96.5	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0300	120	71.2 - 126	
Methylene Chloride	1	0.025	0.0279	111	70.3 - 120	
Naphthalene	1	0.025	0.0290	116	68.4 - 128	
n-Butylbenzene	1	0.025	0.0237	94.7	76.2 - 126	
n-Propylbenzene	1	0.025	0.0240	96.2	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0228	91.1	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0236	94.3	74.4 - 127	
Styrene	1	0.025	0.0256	102	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0232	92.8	75.3 - 126	
Tetrachloroethene	1	0.025	0.0239	95.7	72.6 - 126	
Toluene	1	0.025	0.0258	103	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0284	114	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0274	109	74.3 - 123	
Trichloroethene	1	0.025	0.0255	102	77.7 - 118	
Vinyl chloride	1	0.025	0.0313	125	65.9 - 128	
Xylenes, Total	1	0.075	0.0734	97.8	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0263	105	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0269	108	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0243	97.4	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0265	106	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0287	115	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0242	96.8	75 - 123	
1,2-Dibromoethane	1	0.025	0.0261	105	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0265	106	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0268	107	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0234	93.5	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1340	107	55 - 149	
2-Hexanone	1	0.125	0.1378	110	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1339	107	70.5 - 133	
Acetone	1	0.125	0.1293	103	35.6 - 163	
Benzene	1	0.025	0.0255	102	74.8 - 121	
Bromodichloromethane	1	0.025	0.0266	106	75.1 - 116	
Bromoform	1	0.025	0.0260	104	67.5 - 130	
Bromomethane	1	0.025	0.0270	108	49.9 - 162	
Carbon disulfide	1	0.025	0.0258	103	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0246	98.6	70.2 - 123	
Chlorobenzene	1	0.025	0.0252	101	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0243	97.3	74 - 121	
Chloroethane	1	0.025	0.0276	110	61.7 - 135	
Chloroform	1	0.025	0.0261	104	76 - 121	
Chloromethane	1	0.025	0.0262	105	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0266	106	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0263	105	78.2 - 120	
Ethylbenzene	1	0.025	0.0247	98.9	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0203	81.4	64.7 - 129	
Isopropylbenzene	1	0.025	0.0249	99.5	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0255	102	71.2 - 126	
Methylene Chloride	1	0.025	0.0259	103	70.3 - 120	
Naphthalene	1	0.025	0.0271	108	68.4 - 128	
n-Butylbenzene	1	0.025	0.0251	100	76.2 - 126	
n-Propylbenzene	1	0.025	0.0249	99.8	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0230	92	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0241	96.3	74.4 - 127	
Styrene	1	0.025	0.0264	106	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0235	94.1	75.3 - 126	
Tetrachloroethene	1	0.025	0.0246	98.5	72.6 - 126	
Toluene	1	0.025	0.0247	98.7	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0266	106	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0264	105	74.3 - 123	
Trichloroethene	1	0.025	0.0264	106	77.7 - 118	
Vinyl chloride	1	0.025	0.0291	116	65.9 - 128	
Xylenes, Total	1	0.075	0.0747	99.6	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1-Trichloroethane	1	0.025	0.0301	120	0.0263	105	73.2 - 123		13.6	20
1,1,2,2-Tetrachloroethane	1	0.025	0.0256	102	0.0269	108	70.7 - 122		4.9	20
1,1,2-Trichloroethane	1	0.025	0.0244	97.4	0.0243	97.4	77.7 - 118		0.08	20
1,1-Dichloroethane	1	0.025	0.0317	127	0.0265	106	70.7 - 126	J4	17.8	20
1,1-Dichloroethene	1	0.025	0.0317	127	0.0287	115	67.8 - 129		9.67	20
1,2,4-Trimethylbenzene	1	0.025	0.0236	94.2	0.0242	96.8	75 - 123		2.66	20
1,2-Dibromoethane	1	0.025	0.0251	100	0.0261	105	76.6 - 121		4.08	20
1,2-Dichloroethane	1	0.025	0.0323	129	0.0265	106	68.8 - 124	J4	19.8	20
1,2-Dichloropropane	1	0.025	0.0295	118	0.0268	107	76.5 - 119		9.44	20
1,3,5-Trimethylbenzene	1	0.025	0.0234	93.5	0.0234	93.5	75.6 - 124		0.03	20
2-Butanone (MEK)	1	0.125	0.1659	133	0.1340	107	55 - 149		21.3	20 J3
2-Hexanone	1	0.125	0.1390	111	0.1378	110	65.6 - 144		0.85	20
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1513	121	0.1339	107	70.5 - 133		12.2	20
Acetone	1	0.125	0.1463	117	0.1293	103	35.6 - 163		12.3	23.9
Benzene	1	0.025	0.0288	115	0.0255	102	74.8 - 121		12	20
Bromodichloromethane	1	0.025	0.0287	115	0.0266	106	75.1 - 116		7.7	20
Bromoform	1	0.025	0.0259	104	0.0260	104	67.5 - 130		0.17	20
Bromomethane	1	0.025	0.0294	118	0.0270	108	49.9 - 162		8.43	20
Carbon disulfide	1	0.025	0.0296	119	0.0258	103	64.6 - 140		13.6	20
Carbon tetrachloride	1	0.025	0.0289	116	0.0246	98.6	70.2 - 123		15.9	20
Chlorobenzene	1	0.025	0.0241	96.3	0.0252	101	78.1 - 119		4.59	20
Chlorodibromomethane	1	0.025	0.0244	97.6	0.0243	97.3	74 - 121		0.23	20
Chloroethane	1	0.025	0.0316	126	0.0276	110	61.7 - 135		13.6	20
Chloroform	1	0.025	0.0300	120	0.0261	104	76 - 121		13.8	20
Chloromethane	1	0.025	0.0290	116	0.0262	105	61.5 - 129		10	20
cis-1,2-Dichloroethene	1	0.025	0.0282	113	0.0266	106	76 - 119		5.86	20
cis-1,3-Dichloropropene	1	0.025	0.0281	112	0.0263	105	78.2 - 120		6.59	20
Ethylbenzene	1	0.025	0.0247	98.7	0.0247	98.9	78.8 - 122		0.21	20
Hexachloro-1,3-butadiene	1	0.025	0.0222	88.6	0.0203	81.4	64.7 - 129		8.58	20
Isopropylbenzene	1	0.025	0.0241	96.5	0.0249	99.5	78.6 - 132		3.12	20
Methyl tert-butyl ether	1	0.025	0.0300	120	0.0255	102	71.2 - 126		16.3	20
Methylene Chloride	1	0.025	0.0279	111	0.0259	103	70.3 - 120		7.47	20
Naphthalene	1	0.025	0.0290	116	0.0271	108	68.4 - 128		6.68	20
n-Butylbenzene	1	0.025	0.0237	94.7	0.0251	100	76.2 - 126		5.98	20
n-Propylbenzene	1	0.025	0.0240	96.2	0.0249	99.8	78.2 - 122		3.67	20
p-Isopropyltoluene	1	0.025	0.0228	91.1	0.0230	92	74 - 131		0.98	20

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Control RPD Qual
sec-Butylbenzene	1	0.025	0.0236	94.3	0.0241	96.3	74.4 - 127	2.03	20	
Styrene	1	0.025	0.0256	102	0.0264	106	80.4 - 126	3.29	20	
tert-Butylbenzene	1	0.025	0.0232	92.8	0.0235	94.1	75.3 - 126	1.44	20	
Tetrachloroethene	1	0.025	0.0239	95.7	0.0246	98.5	72.6 - 126	2.95	20	
Toluene	1	0.025	0.0258	103	0.0247	98.7	79.7 - 116	4.41	20	
trans-1,2-Dichloroethene	1	0.025	0.0284	114	0.0266	106	72.6 - 121	6.54	20	
trans-1,3-Dichloropropene	1	0.025	0.0274	109	0.0264	105	74.3 - 123	3.69	20	
Trichloroethene	1	0.025	0.0255	102	0.0264	106	77.7 - 118	3.63	20	
Vinyl chloride	1	0.025	0.0313	125	0.0291	116	65.9 - 128	7.37	20	
Xylenes, Total	1	0.075	0.0734	97.8	0.0747	99.6	78.7 - 121	1.8	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0224	89.6	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0220	88.1	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0212	84.8	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0214	85.7	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0213	85.3	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0228	91.3	75 - 123	
1,2-Dibromoethane	1	0.025	0.0216	86.5	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0226	90.4	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0223	89	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0225	89.9	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1258	101	55 - 149	
2-Hexanone	1	0.125	0.1232	98.6	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1235	98.8	70.5 - 133	
Acetone	1	0.125	0.1187	94.9	35.6 - 163	
Benzene	1	0.025	0.0204	81.5	74.8 - 121	
Bromodichloromethane	1	0.025	0.0212	84.7	75.1 - 116	
Bromoform	1	0.025	0.0220	88.2	67.5 - 130	
Bromomethane	1	0.025	0.0248	99.3	49.9 - 162	
Carbon disulfide	1	0.025	0.0171	68.3	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0221	88.5	70.2 - 123	
Chlorobenzene	1	0.025	0.0226	90.2	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0229	91.7	74 - 121	
Chloroethane	1	0.025	0.0253	101	61.7 - 135	
Chloroform	1	0.025	0.0213	85	76 - 121	
Chloromethane	1	0.025	0.0185	74.1	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0207	82.7	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0216	86.3	78.2 - 120	
Ethylbenzene	1	0.025	0.0216	86.3	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0225	90.1	64.7 - 129	
Isopropylbenzene	1	0.025	0.0231	92.4	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0213	85.2	71.2 - 126	
Methylene Chloride	1	0.025	0.0193	77	70.3 - 120	
Naphthalene	1	0.025	0.0215	86	68.4 - 128	
n-Butylbenzene	1	0.025	0.0232	92.6	76.2 - 126	
n-Propylbenzene	1	0.025	0.0228	91.2	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0228	91.3	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0227	90.6	74.4 - 127	
Styrene	1	0.025	0.0218	87.3	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0230	91.9	75.3 - 126	
Tetrachloroethene	1	0.025	0.0229	91.4	72.6 - 126	
Toluene	1	0.025	0.0215	86.1	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0191	76.6	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0204	81.6	74.3 - 123	
Trichloroethene	1	0.025	0.0222	88.8	77.7 - 118	
Vinyl chloride	1	0.025	0.0208	83.3	65.9 - 128	
Xylenes, Total	1	0.075	0.0658	87.7	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,1,1-Trichloroethane	1	0.025	0.0226	90.3	73.2 - 123	
1,1,2,2-Tetrachloroethane	1	0.025	0.0219	87.5	70.7 - 122	
1,1,2-Trichloroethane	1	0.025	0.0213	85.1	77.7 - 118	
1,1-Dichloroethane	1	0.025	0.0215	86	70.7 - 126	
1,1-Dichloroethene	1	0.025	0.0210	84.1	67.8 - 129	
1,2,4-Trimethylbenzene	1	0.025	0.0221	88.5	75 - 123	
1,2-Dibromoethane	1	0.025	0.0212	84.7	76.6 - 121	
1,2-Dichloroethane	1	0.025	0.0229	91.7	68.8 - 124	
1,2-Dichloropropane	1	0.025	0.0222	88.8	76.5 - 119	
1,3,5-Trimethylbenzene	1	0.025	0.0218	87.1	75.6 - 124	
2-Butanone (MEK)	1	0.125	0.1305	104	55 - 149	
2-Hexanone	1	0.125	0.1264	101	65.6 - 144	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1291	103	70.5 - 133	
Acetone	1	0.125	0.1219	97.6	35.6 - 163	
Benzene	1	0.025	0.0205	82.1	74.8 - 121	
Bromodichloromethane	1	0.025	0.0213	85.3	75.1 - 116	
Bromoform	1	0.025	0.0225	90	67.5 - 130	
Bromomethane	1	0.025	0.0251	100	49.9 - 162	
Carbon disulfide	1	0.025	0.0169	67.7	64.6 - 140	
Carbon tetrachloride	1	0.025	0.0221	88.3	70.2 - 123	
Chlorobenzene	1	0.025	0.0217	86.6	78.1 - 119	
Chlorodibromomethane	1	0.025	0.0227	90.8	74 - 121	
Chloroethane	1	0.025	0.0258	103	61.7 - 135	
Chloroform	1	0.025	0.0213	85.2	76 - 121	
Chloromethane	1	0.025	0.0184	73.6	61.5 - 129	
cis-1,2-Dichloroethene	1	0.025	0.0204	81.7	76 - 119	
cis-1,3-Dichloropropene	1	0.025	0.0211	84.4	78.2 - 120	
Ethylbenzene	1	0.025	0.0213	85	78.8 - 122	
Hexachloro-1,3-butadiene	1	0.025	0.0233	93.1	64.7 - 129	
Isopropylbenzene	1	0.025	0.0225	89.9	78.6 - 132	
Methyl tert-butyl ether	1	0.025	0.0215	86.1	71.2 - 126	
Methylene Chloride	1	0.025	0.0194	77.7	70.3 - 120	
Naphthalene	1	0.025	0.0226	90.5	68.4 - 128	
n-Butylbenzene	1	0.025	0.0236	94.3	76.2 - 126	
n-Propylbenzene	1	0.025	0.0225	89.9	78.2 - 122	
p-Isopropyltoluene	1	0.025	0.0223	89.4	74 - 131	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
sec-Butylbenzene	1	0.025	0.0223	89.2	74.4 - 127	
Styrene	1	0.025	0.0218	87.3	80.4 - 126	
tert-Butylbenzene	1	0.025	0.0226	90.5	75.3 - 126	
Tetrachloroethene	1	0.025	0.0218	87.4	72.6 - 126	
Toluene	1	0.025	0.0215	86	79.7 - 116	
trans-1,2-Dichloroethene	1	0.025	0.0193	77.3	72.6 - 121	
trans-1,3-Dichloropropene	1	0.025	0.0209	83.7	74.3 - 123	
Trichloroethene	1	0.025	0.0225	90	77.7 - 118	
Vinyl chloride	1	0.025	0.0210	83.9	65.9 - 128	
Xylenes, Total	1	0.075	0.0643	85.7	78.7 - 121	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,1,1-Trichloroethane	1	0.025	0.0224	89.6	0.0226	90.3	73.2 - 123	0.78	20	
1,1,2,2-Tetrachloroethane	1	0.025	0.0220	88.1	0.0219	87.5	70.7 - 122	0.66	20	
1,1,2-Trichloroethane	1	0.025	0.0212	84.8	0.0213	85.1	77.7 - 118	0.39	20	
1,1-Dichloroethane	1	0.025	0.0214	85.7	0.0215	86	70.7 - 126	0.39	20	
1,1-Dichloroethene	1	0.025	0.0213	85.3	0.0210	84.1	67.8 - 129	1.46	20	
1,2,4-Trimethylbenzene	1	0.025	0.0228	91.3	0.0221	88.5	75 - 123	3.16	20	
1,2-Dibromoethane	1	0.025	0.0216	86.5	0.0212	84.7	76.6 - 121	2.14	20	
1,2-Dichloroethane	1	0.025	0.0226	90.4	0.0229	91.7	68.8 - 124	1.51	20	
1,2-Dichloropropane	1	0.025	0.0223	89	0.0222	88.8	76.5 - 119	0.28	20	
1,3,5-Trimethylbenzene	1	0.025	0.0225	89.9	0.0218	87.1	75.6 - 124	3.22	20	
2-Butanone (MEK)	1	0.125	0.1258	101	0.1305	104	55 - 149	3.68	20	
2-Hexanone	1	0.125	0.1232	98.6	0.1264	101	65.6 - 144	2.55	20	
4-Methyl-2-pentanone (MIBK)	1	0.125	0.1235	98.8	0.1291	103	70.5 - 133	4.47	20	
Acetone	1	0.125	0.1187	94.9	0.1219	97.6	35.6 - 163	2.73	23.9	
Benzene	1	0.025	0.0204	81.5	0.0205	82.1	74.8 - 121	0.64	20	
Bromodichloromethane	1	0.025	0.0212	84.7	0.0213	85.3	75.1 - 116	0.71	20	
Bromoform	1	0.025	0.0220	88.2	0.0225	90	67.5 - 130	2.07	20	
Bromomethane	1	0.025	0.0248	99.3	0.0251	100	49.9 - 162	1.16	20	
Carbon disulfide	1	0.025	0.0171	68.3	0.0169	67.7	64.6 - 140	0.86	20	
Carbon tetrachloride	1	0.025	0.0221	88.5	0.0221	88.3	70.2 - 123	0.22	20	
Chlorobenzene	1	0.025	0.0226	90.2	0.0217	86.6	78.1 - 119	4.08	20	
Chlorodibromomethane	1	0.025	0.0229	91.7	0.0227	90.8	74 - 121	0.95	20	
Chloroethane	1	0.025	0.0253	101	0.0258	103	61.7 - 135	1.94	20	
Chloroform	1	0.025	0.0213	85	0.0213	85.2	76 - 121	0.26	20	
Chloromethane	1	0.025	0.0185	74.1	0.0184	73.6	61.5 - 129	0.73	20	
cis-1,2-Dichloroethene	1	0.025	0.0207	82.7	0.0204	81.7	76 - 119	1.27	20	
cis-1,3-Dichloropropene	1	0.025	0.0216	86.3	0.0211	84.4	78.2 - 120	2.31	20	
Ethylbenzene	1	0.025	0.0216	86.3	0.0213	85	78.8 - 122	1.49	20	
Hexachloro-1,3-butadiene	1	0.025	0.0225	90.1	0.0233	93.1	64.7 - 129	3.36	20	
Isopropylbenzene	1	0.025	0.0231	92.4	0.0225	89.9	78.6 - 132	2.75	20	
Methyl tert-butyl ether	1	0.025	0.0213	85.2	0.0215	86.1	71.2 - 126	1.03	20	
Methylene Chloride	1	0.025	0.0193	77	0.0194	77.7	70.3 - 120	0.91	20	
Naphthalene	1	0.025	0.0215	86	0.0226	90.5	68.4 - 128	5.05	20	
n-Butylbenzene	1	0.025	0.0232	92.6	0.0236	94.3	76.2 - 126	1.81	20	
n-Propylbenzene	1	0.025	0.0228	91.2	0.0225	89.9	78.2 - 122	1.43	20	
p-Isopropyltoluene	1	0.025	0.0228	91.3	0.0223	89.4	74 - 131	2.1	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	Qual
sec-Butylbenzene	1	0.025	0.0227	90.6	0.0223	89.2	74.4 - 127	1.54	20	
Styrene	1	0.025	0.0218	87.3	0.0218	87.3	80.4 - 126	0.05	20	
tert-Butylbenzene	1	0.025	0.0230	91.9	0.0226	90.5	75.3 - 126	1.46	20	
Tetrachloroethene	1	0.025	0.0229	91.4	0.0218	87.4	72.6 - 126	4.48	20	
Toluene	1	0.025	0.0215	86.1	0.0215	86	79.7 - 116	0.17	20	
trans-1,2-Dichloroethene	1	0.025	0.0191	76.6	0.0193	77.3	72.6 - 121	0.95	20	
trans-1,3-Dichloropropene	1	0.025	0.0204	81.6	0.0209	83.7	74.3 - 123	2.59	20	
Trichloroethene	1	0.025	0.0222	88.8	0.0225	90	77.7 - 118	1.38	20	
Vinyl chloride	1	0.025	0.0208	83.3	0.0210	83.9	65.9 - 128	0.75	20	
Xylenes, Total	1	0.075	0.0658	87.7	0.0643	85.7	78.7 - 121	2.32	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Volatile Organic Compounds by Method 8260B
 Project No: 227000 Matrix: Water - mg/L
 Project: Lovington Lea Refinery EPA ID: TN00003
 Collection Date: 2/26/2015 Analytic Batch: WG773564
 Analysis Date: 3/9/2015 12:10:00 AM Analyst: 621
 Instrument ID: VOCMS7
 Sample Numbers: L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20

Matrix Spike / Matrix Spike Duplicate

L751256-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0237	94.7	0.0243	97.3	58.7 - 134		2.73	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0274	110	0.0283	113	56 - 132		3.43	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0235	94.1	0.0243	97.3	66.3 - 125		3.36	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0246	98.3	0.0251	100	58.5 - 132		1.98	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0231	92.4	0.0235	94.1	51.1 - 140		1.78	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0214	85.8	0.0222	88.8	57.4 - 137		3.49	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0236	94.5	0.0249	99.6	67.1 - 125		5.27	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0214	85.4	0.0220	87.9	60 - 126		2.86	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0268	107	0.0268	107	64.2 - 123		0.05	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0219	87.8	0.0230	92	63.6 - 132		4.72	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1386	111	0.1409	113	22.4 - 138		1.64	27	
2-Hexanone	1	0.125	<0.0038	0.1347	108	0.1426	114	43.3 - 137		5.74	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1460	117	0.1526	122	60.8 - 140		4.43	25.1	
Acetone	1	0.125	<0.01	0.1187	91.4	0.1221	94.1	10 - 130		2.83	27.9	
Benzene	1	0.025	<0.0003	0.0214	85.5	0.0219	87.6	54.3 - 133		2.4	20	
Bromodichloromethane	1	0.025	<0.0004	0.0255	102	0.0254	102	63.9 - 121		0.41	20	
Bromoform	1	0.025	<0.0005	0.0254	102	0.0268	107	59.5 - 134		5.52	20.5	
Bromomethane	1	0.025	<0.0009	0.0328	129	0.0328	130	41.7 - 155		0.24	21.9	
Carbon disulfide	1	0.025	<0.0003	0.0175	69.9	0.0179	71.6	43.3 - 149		2.44	20.3	
Carbon tetrachloride	1	0.025	<0.0004	0.0239	95.4	0.0246	98.6	55.7 - 134		3.27	20	
Chlorobenzene	1	0.025	<0.0003	0.0226	90.5	0.0233	93	67 - 125		2.74	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0241	96.2	0.0252	101	64.3 - 125		4.74	20.8	
Chloroethane	1	0.025	<0.0005	0.0377	151	0.0383	153	51.5 - 136	J5	1.64	40	
Chloroform	1	0.025	<0.0003	0.0228	91.2	0.0235	93.9	63 - 129		2.91	20	
Chloromethane	1	0.025	<0.0003	0.0235	94.2	0.0239	95.7	42.4 - 135		1.59	20	
cis-1,2-Dichloroethene	1	0.025	<0.0003	0.0236	94.5	0.0239	95.4	59.2 - 129		1	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0246	98.3	0.0249	99.4	66.4 - 125		1.08	20	
Ethylbenzene	1	0.025	<0.0004	0.0223	89.4	0.0229	91.4	61.4 - 133		2.26	20	
Hexachloro-1,3-butadiene	1	0.025	<0.0003	0.0270	108	0.0285	114	55.1 - 136		5.27	23.6	
Isopropylbenzene	1	0.025	<0.0003	0.0225	90	0.0234	93.6	66.8 - 141		3.91	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0233	93.3	0.0238	95.1	57.7 - 134		1.87	20	
Methylene Chloride	1	0.025	<0.001	0.0212	85	0.0217	87	58.1 - 122		2.35	20	
Naphthalene	1	0.025	<0.001	0.0227	89.3	0.0246	96.6	58 - 135		7.73	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0251	100	0.0267	107	62.7 - 140		6.14	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0229	91.4	0.0238	95.2	65.9 - 131		4.01	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0229	91.6	0.0242	96.8	63.2 - 139		5.48	20.4	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773564
Analysis Date:	3/9/2015 12:10:00 AM	Analyst:	621
Instrument ID:	VOCMS7		
Sample Numbers:	L751256-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20		

Matrix Spike / Matrix Spike Duplicate

L751256-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	<0.0004	0.0227	90.7	0.0235	94.1	62.2 - 136		3.69	20.3	
Styrene	1	0.025	<0.0003	0.0224	89.8	0.0233	93.1	66.8 - 133		3.59	20	
tert-Butylbenzene	1	0.025	<0.0004	0.0227	90.7	0.0241	96.2	63.3 - 134		5.93	21	
Tetrachloroethene	1	0.025	<0.0004	0.0232	92.8	0.0244	97.4	53 - 139		4.91	20	
Toluene	1	0.025	<0.0008	0.0229	91.6	0.0233	93.1	61.4 - 130		1.61	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0226	90.4	0.0229	91.4	56.5 - 129		1.18	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0253	101	0.0257	103	64.1 - 128		1.43	20	
Trichloroethene	1	0.025	<0.0004	0.0222	88.6	0.0228	91.1	44.1 - 149		2.71	20	
Vinyl chloride	1	0.025	<0.0003	0.0251	100	0.0249	99.7	47.8 - 137		0.56	20	
Xylenes, Total	1	0.075	<0.0011	0.0663	88.4	0.0686	91.5	63.3 - 131		3.41	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test: Volatile Organic Compounds by Method 8260B
Project No: 227000 Matrix: Water - mg/L
Project: Lovington Lea Refinery EPA ID: TN00003
Collection Date: 2/26/2015 Analytic Batch: WG773566
Analysis Date: 3/8/2015 1:34:00 PM Analyst: 621
Instrument ID: VOCMS24
Sample Numbers: L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40

Matrix Spike / Matrix Spike Duplicate

L751256-21

Analyte	Dil	Spike Value	Sample MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0218	87.3	0.0240	95.9	58.7 - 134	9.39	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0271	108	0.0298	119	56 - 132	9.42	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0260	104	0.0269	108	66.3 - 125	3.38	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0202	80.8	0.0228	91.3	58.5 - 132	12.3	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0190	76	0.0211	84.2	51.1 - 140	10.3	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0228	91.3	0.0257	103	57.4 - 137	11.7	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0258	103	0.0272	109	67.1 - 125	5.35	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0224	89.7	0.0248	99.2	60 - 126	10	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0238	95.1	0.0254	101	64.2 - 123	6.39	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0233	93.3	0.0263	105	63.6 - 132	12	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1229	98.3	0.1389	111	22.4 - 138	12.2	27	
2-Hexanone	1	0.125	<0.0038	0.1357	109	0.1401	112	43.3 - 137	3.16	25.5	
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1322	106	0.1427	114	60.8 - 140	7.58	25.1	
Acetone	1	0.125	<0.01	0.1029	82.4	0.1288	103	10 - 130	22.3	27.9	
Benzene	1	0.025	<0.0003	0.0211	84.5	0.0227	90.8	54.3 - 133	7.17	20	
Bromodichloromethane	1	0.025	<0.0004	0.0243	97	0.0261	105	63.9 - 121	7.49	20	
Bromoform	1	0.025	<0.0005	0.0269	108	0.0290	116	59.5 - 134	7.48	20.5	
Bromomethane	1	0.025	<0.0009	0.0283	113	0.0320	128	41.7 - 155	12.1	21.9	
Carbon disulfide	1	0.025	<0.0003	0.0156	62.4	0.0177	70.6	43.3 - 149	12.4	20.3	
Carbon tetrachloride	1	0.025	<0.0004	0.0222	88.7	0.0244	97.7	55.7 - 134	9.61	20	
Chlorobenzene	1	0.025	<0.0003	0.0255	102	0.0267	107	67 - 125	4.82	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0263	105	0.0276	110	64.3 - 125	4.94	20.8	
Chloroethane	1	0.025	<0.0005	0.0262	105	0.0289	116	51.5 - 136	9.82	40	
Chloroform	1	0.025	<0.0003	0.0203	81.3	0.0227	91	63 - 129	11.3	20	
Chloromethane	1	0.025	<0.0003	0.0167	67	0.0189	75.7	42.4 - 135	12.2	20	
cis-1,2-Dichloroethene	1	0.025	<0.0003	0.0207	83	0.0232	92.7	59.2 - 129	11	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0242	96.9	0.0245	97.9	66.4 - 125	1.06	20	
Ethylbenzene	1	0.025	<0.0004	0.0251	100	0.0260	104	61.4 - 133	3.62	20	
Hexachloro-1,3-butadiene	1	0.025	<0.0003	0.0226	90.6	0.0230	92.1	55.1 - 136	1.64	23.6	
Isopropylbenzene	1	0.025	<0.0003	0.0239	95.6	0.0263	105	66.8 - 141	9.68	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0208	83.3	0.0240	96.1	57.7 - 134	14.2	20	
Methylene Chloride	1	0.025	<0.001	0.0195	76.5	0.0218	85.8	58.1 - 122	11.3	20	
Naphthalene	1	0.025	<0.001	0.0221	88.2	0.0237	94.8	58 - 135	7.13	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0242	96.7	0.0258	103	62.7 - 140	6.55	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0240	96.1	0.0260	104	65.9 - 131	8.01	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0233	93.1	0.0263	105	63.2 - 139	12.1	20.4	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773566
Analysis Date:	3/8/2015 1:34:00 PM	Analyst:	621
Instrument ID:	VOCMS24		
Sample Numbers:	L751256-21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -37, -38, -39, -40		

Matrix Spike / Matrix Spike Duplicate

L751256-21

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
sec-Butylbenzene	1	0.025	<0.0004	0.0233	93.2	0.0261	104	62.2 - 136		11.4	20.3	
Styrene	1	0.025	<0.0003	0.0241	96.5	0.0253	101	66.8 - 133		4.89	20	
tert-Butylbenzene	1	0.025	<0.0004	0.0233	93.2	0.0258	103	63.3 - 134		10.2	21	
Tetrachloroethene	1	0.025	<0.0004	0.0259	104	0.0275	110	53 - 139		5.94	20	
Toluene	1	0.025	<0.0008	0.0235	93.9	0.0241	96.5	61.4 - 130		2.73	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0192	76.8	0.0216	86.2	56.5 - 129		11.5	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0272	109	0.0279	112	64.1 - 128		2.38	20	
Trichloroethene	1	0.025	<0.0004	0.0231	92.3	0.0254	102	44.1 - 149		9.46	20	
Vinyl chloride	1	0.025	<0.0003	0.0220	88	0.0243	97.2	47.8 - 137		9.96	20	
Xylenes, Total	1	0.075	<0.0011	0.0745	99.4	0.0788	105	63.3 - 131		5.56	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Matrix Spike / Matrix Spike Duplicate

L751275-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0317	127	0.0295	118	58.7 - 134		7.46	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0322	129	0.0319	127	56 - 132		0.88	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0265	106	0.0267	107	66.3 - 125		0.98	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0324	130	0.0290	116	58.5 - 132		11	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0313	125	0.0278	111	51.1 - 140		12	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0261	104	0.0266	107	57.4 - 137		1.96	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0276	111	0.0284	114	67.1 - 125		2.65	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0347	139	0.0292	117	60 - 126	J5	17.2	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0312	125	0.0282	113	64.2 - 123	J5	10.2	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0254	102	0.0262	105	63.6 - 132		3.23	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1797	144	0.1396	112	22.4 - 138	J5	25.1	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1688	135	0.1495	120	60.8 - 140		12.1	25.1	
Acetone	1	0.125	<0.01	0.1740	135	0.1419	109	10 - 130	J5	20.4	27.9	
Benzene	1	0.025	<0.0003	0.0292	117	0.0269	108	54.3 - 133		8.14	20	
Bromodichloromethane	1	0.025	<0.0004	0.0316	126	0.0294	118	63.9 - 121	J5	7.12	20	
Bromoform	1	0.025	<0.0005	0.0291	116	0.0297	119	59.5 - 134		2.22	20.5	
Bromomethane	1	0.025	<0.0009	0.0269	107	0.0256	102	41.7 - 155		4.78	21.9	
Carbon tetrachloride	1	0.025	<0.0004	0.0298	119	0.0278	111	55.7 - 134		7.03	20	
Chlorobenzene	1	0.025	<0.0003	0.0255	102	0.0270	108	67 - 125		5.86	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0268	107	0.0277	111	64.3 - 125		3.04	20.8	
Chloroethane	1	0.025	<0.0005	0.0295	118	0.0276	110	51.5 - 136		6.69	40	
Chloroform	1	0.025	<0.0003	0.0322	129	0.0295	118	63 - 129		8.62	20	
Chloromethane	1	0.025	<0.0003	0.0273	109	0.0240	96.1	42.4 - 135		12.6	20	
cis-1,2-Dichloroethene	1	0.025	<0.0003	0.0292	117	0.0273	109	59.2 - 129		6.67	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0293	117	0.0280	112	66.4 - 125		4.52	20	
Ethylbenzene	1	0.025	<0.0004	0.0253	101	0.0265	106	61.4 - 133		4.74	20	
Hexachloro-1,3-butadiene	1	0.025	<0.0003	0.0237	94.6	0.0251	100	55.1 - 136		5.9	23.6	
Isopropylbenzene	1	0.025	<0.0003	0.0264	106	0.0274	110	66.8 - 141		3.72	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0326	130	0.0293	117	57.7 - 134		10.5	20	
Methylene Chloride	1	0.025	<0.001	0.0284	112	0.0268	105	58.1 - 122		5.81	20	
Naphthalene	1	0.025	<0.001	0.0304	121	0.0318	127	58 - 135		4.45	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0269	107	0.0282	113	62.7 - 140		4.98	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0273	109	0.0274	110	65.9 - 131		0.19	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0254	102	0.0264	106	63.2 - 139		3.98	20.4	
sec-Butylbenzene	1	0.025	<0.0004	0.0262	105	0.0271	108	62.2 - 136		3.37	20.3	
Styrene	1	0.025	<0.0003	0.0280	112	0.0290	116	66.8 - 133		3.39	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773789
Analysis Date:	3/10/2015 4:40:00 AM	Analyst:	621
Instrument ID:	VOCMS18		
Sample Numbers:	L751256-41		

Matrix Spike / Matrix Spike Duplicate

L751275-01

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
tert-Butylbenzene	1	0.025	<0.0004	0.0261	104	0.0267	107	63.3 - 134		2.2	21	
Tetrachloroethene	1	0.025	<0.0004	0.0234	92.2	0.0256	101	53 - 139		8.95	20	
Toluene	1	0.025	<0.0008	0.0267	107	0.0261	104	61.4 - 130		2.48	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0274	110	0.0265	106	56.5 - 129		3.28	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0291	117	0.0315	126	64.1 - 128		7.68	20	
Trichloroethene	1	0.025	<0.0004	0.0252	101	0.0259	104	44.1 - 149		2.98	20	
Vinyl chloride	1	0.025	<0.0003	0.0302	121	0.0274	110	47.8 - 137		9.55	20	
Xylenes, Total	1	0.075	<0.0011	0.0766	102	0.0789	105	63.3 - 131		3.02	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Matrix Spike / Matrix Spike Duplicate

L751018-14

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
1,1,1-Trichloroethane	1	0.025	<0.0003	0.0285	114	0.0293	117	58.7 - 134		2.76	20	
1,1,2,2-Tetrachloroethane	1	0.025	<0.0001	0.0220	88	0.0226	90.2	56 - 132		2.5	22.2	
1,1,2-Trichloroethane	1	0.025	<0.0004	0.0188	75.3	0.0187	75	66.3 - 125		0.36	20	
1,1-Dichloroethane	1	0.025	<0.0003	0.0315	126	0.0323	129	58.5 - 132		2.38	20	
1,1-Dichloroethene	1	0.025	<0.0004	0.0326	130	0.0304	122	51.1 - 140		6.96	20.2	
1,2,4-Trimethylbenzene	1	0.025	<0.0004	0.0255	102	0.0237	94.8	57.4 - 137		7.23	20	
1,2-Dibromoethane	1	0.025	<0.0004	0.0197	79	0.0206	82.5	67.1 - 125		4.37	20	
1,2-Dichloroethane	1	0.025	<0.0004	0.0309	123	0.0318	127	60 - 126	J5	3.1	20	
1,2-Dichloropropane	1	0.025	<0.0003	0.0222	88.9	0.0237	94.6	64.2 - 123		6.24	20	
1,3,5-Trimethylbenzene	1	0.025	<0.0004	0.0243	97	0.0229	91.4	63.6 - 132		5.92	20.5	
2-Butanone (MEK)	1	0.125	<0.0039	0.1424	113	0.1468	117	22.4 - 138		3.04	27	
4-Methyl-2-pentanone (MIBK)	1	0.125	<0.0021	0.1391	111	0.1358	109	60.8 - 140		2.39	25.1	
Acetone	1	0.125	<0.01	0.1663	129	0.1747	136	10 - 130	J5	4.93	27.9	
Benzene	1	0.025	<0.0003	0.0208	83.3	0.0230	92.1	54.3 - 133		10	20	
Bromodichloromethane	1	0.025	<0.0004	0.0245	98.2	0.0257	103	63.9 - 121		4.61	20	
Bromoform	1	0.025	<0.0005	0.0210	84.1	0.0227	90.8	59.5 - 134		7.6	20.5	
Bromomethane	1	0.025	0.0159	0.0351	76.8	0.0365	82.6	41.7 - 155		4.04	21.9	
Carbon disulfide	1	0.025	<0.0003	0.0179	71.6	0.0181	72.5	43.3 - 149		1.18	20.3	
Carbon tetrachloride	1	0.025	<0.0004	0.0246	98.6	0.0278	111	55.7 - 134		11.9	20	
Chlorobenzene	1	0.025	<0.0003	0.0218	87.2	0.0202	80.9	67 - 125		7.57	20	
Chlorodibromomethane	1	0.025	<0.0003	0.0197	79	0.0200	80.1	64.3 - 125		1.49	20.8	
Chloroethane	1	0.025	<0.0005	0.0275	110	0.0270	108	51.5 - 136		2.06	40	
Chloroform	1	0.025	<0.0003	0.0308	123	0.0309	124	63 - 129		0.61	20	
Chloromethane	1	0.025	0.0052	0.0300	99.2	0.0307	102	42.4 - 135		2.33	20	
cis-1,2-Dichloroethene	1	0.025	0.0341	0.0602	104	0.0602	104	59.2 - 129		0	20	
cis-1,3-Dichloropropene	1	0.025	<0.0004	0.0206	82.5	0.0210	83.8	66.4 - 125		1.63	20	
Ethylbenzene	1	0.025	<0.0004	0.0223	89.3	0.0216	86.5	61.4 - 133		3.25	20	
Hexachloro-1,3-butadiene	1	0.025	<0.0003	0.0303	121	0.0305	122	55.1 - 136		0.75	23.6	
Isopropylbenzene	1	0.025	<0.0003	0.0261	104	0.0252	101	66.8 - 141		3.55	20	
Methyl tert-butyl ether	1	0.025	<0.0004	0.0196	78.5	0.0193	77.3	57.7 - 134		1.53	20	
Methylene Chloride	1	0.025	<0.001	0.0263	103	0.0270	105	58.1 - 122		2.56	20	
Naphthalene	1	0.025	<0.001	0.0283	112	0.0299	118	58 - 135		5.46	25.5	
n-Butylbenzene	1	0.025	<0.0004	0.0279	112	0.0271	108	62.7 - 140		2.83	20.3	
n-Propylbenzene	1	0.025	<0.0003	0.0261	104	0.0253	101	65.9 - 131		3.26	20	
p-Isopropyltoluene	1	0.025	<0.0004	0.0270	108	0.0250	100	63.2 - 139		7.61	20.4	
sec-Butylbenzene	1	0.025	<0.0004	0.0281	112	0.0262	105	62.2 - 136		6.71	20.3	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	227000	Matrix:	Water - mg/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG774378
Analysis Date:	3/9/2015 1:00:00 AM	Analyst:	621
Instrument ID:	VOCMS28		
Sample Numbers:	L751256-42, -43		

Matrix Spike / Matrix Spike Duplicate

L751018-14

Analyte	Dil	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qual	RPD	Control Limits	RPD
Styrene	1	0.025	<0.0003	0.0027	10.8	0.0015	5.92	66.8 - 133	J6	58.2	20	J3
tert-Butylbenzene	1	0.025	<0.0004	0.0276	111	0.0263	105	63.3 - 134		4.85	21	
Tetrachloroethene	1	0.025	<0.0004	0.0223	89.4	0.0216	86.5	53 - 139		3.22	20	
Toluene	1	0.025	<0.0008	0.0236	94.3	0.0229	91.7	61.4 - 130		2.8	20	
trans-1,2-Dichloroethene	1	0.025	<0.0004	0.0275	110	0.0279	112	56.5 - 129		1.45	20	
trans-1,3-Dichloropropene	1	0.025	<0.0004	0.0199	79.6	0.0211	84.3	64.1 - 128		5.74	20	
Trichloroethene	1	0.025	0.1601	0.1361	0	0.1433	0	44.1 - 149	V	5.21	20	
Vinyl chloride	1	0.025	0.0007	0.0320	125	0.0322	126	47.8 - 137		0.71	20	
Xylenes, Total	1	0.075	<0.0011	0.0695	92.7	0.0672	89.5	63.3 - 131		3.5	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
1,2,4-Trichlorobenzene	120-82-1	< 10.0	< 0.355	
2,4,5-Trichlorophenol	95-95-4	< 10.0	< 0.236	
2,4,6-Trichlorophenol	88-06-2	< 10.0	< 0.297	
2,4-Dichlorophenol	120-83-2	< 10.0	< 0.284	
2,4-Dimethylphenol	105-67-9	< 10.0	< 0.624	
2,4-Dinitrophenol	51-28-5	< 10.0	< 3.25	
2,4-Dinitrotoluene	121-14-2	< 10.0	< 1.65	
2,6-Dinitrotoluene	606-20-2	< 10.0	< 0.279	
2-Chloronaphthalene	91-58-7	< 1.00	< 0.330	
2-Chlorophenol	95-57-8	< 10.0	< 0.283	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
2-Methylphenol	95-48-7	< 10.0	< 0.312	
2-Nitroaniline	88-74-4	< 10.0	< 1.9	
2-Nitrophenol	88-75-5	< 10.0	< 0.320	
3&4-Methyl Phenol	3&4-Methyl Phenol	< 10.0	< 0.266	
3,3-Dichlorobenzidine	91-94-1	< 10.0	< 2.02	
3-Nitroaniline	99-09-2	< 10.0	< 0.308	
4,6-Dinitro-2-methylphenol	534-52-1	< 10.0	< 2.62	
4-Bromophenyl-phenylether	101-55-3	< 10.0	< 0.335	
4-Chloro-3-methylphenol	59-50-7	< 10.0	< 0.263	
4-Chloroaniline	106-47-8	< 10.0	< 0.382	
4-Chlorophenyl-phenylether	7005-72-3	< 10.0	< 0.303	
4-Nitroaniline	100-01-6	< 10.0	< 0.349	
4-Nitrophenol	100-02-7	< 10.0	< 2.01	
Acenaphthene	83-32-9	< 1.00	< 0.316	
Acenaphthylene	208-96-8	< 1.00	< 0.309	
Acetophenone	98-86-2	< 10.0	< 2.71	
Anthracene	120-12-7	< 1.00	< 0.291	
Atrazine	1912-24-9	< 10.0	< 1.53	
Benzaldehyde	100-52-7	< 10.0	< 1.4	
Benzo(a)anthracene	56-55-3	< 1.00	< 0.318	
Benzo(a)pyrene	50-32-8	< 0.200	< 0.0381	
Benzo(b)fluoranthene	205-99-2	< 1.00	< 0.270	
Benzo(g,h,i)perylene	191-24-2	< 1.00	< 0.329	
Benzo(k)fluoranthene	207-08-9	< 1.00	< 0.355	
Benzylbutyl phthalate	85-68-7	< 3.00	< 0.275	
Biphenyl	92-52-4	< 10.0	< 0.206	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Bis(2-chlorethoxy)methane	111-91-1	< 10.0	< 0.329	
Bis(2-chloroethyl)ether	111-44-4	< 10.0	< 1.62	
Bis(2-chloroisopropyl)ether	108-60-1	< 10.0	< 0.445	
Bis(2-ethylhexyl)phthalate	117-81-7	< 3.00	< 0.709	
Caprolactam	105-60-2	< 10.0	< 0.583	
Carbazole	86-74-8	< 10.0	< 0.162	
Chrysene	218-01-9	< 1.00	< 0.332	
Dibenz(a,h)anthracene	53-70-3	< 0.200	< 0.0644	
Dibenzofuran	132-64-9	< 10.0	< 0.338	
Diethyl phthalate	84-66-2	< 3.00	< 0.282	
Dimethyl phthalate	131-11-3	< 3.00	< 0.283	
Di-n-butyl phthalate	84-74-2	< 3.00	0.340	
Di-n-octyl phthalate	117-84-0	< 3.00	< 0.278	
Fluoranthene	206-44-0	< 1.00	< 0.310	
Fluorene	86-73-7	< 1.00	< 0.323	
Hexachloro-1,3-butadiene	87-68-3	< 10.0	< 0.329	
Hexachlorobenzene	118-74-1	< 1.00	< 0.341	
Hexachlorocyclopentadiene	77-47-4	< 10.0	< 2.33	
Hexachloroethane	67-72-1	< 10.0	< 0.365	
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.00	< 0.279	
Isophorone	78-59-1	< 10.0	< 0.272	
Naphthalene	91-20-3	< 1.00	< 0.372	
Nitrobenzene	98-95-3	< 10.0	< 0.367	
n-Nitrosodi-n-propylamine	621-64-7	< 10.0	< 0.403	
n-Nitrosodiphenylamine	86-30-6	< 10.0	< 0.304	
Pentachlorophenol	87-86-5	< 10.0	< 0.313	
Phenanthrene	85-01-8	< 1.00	< 0.366	
Phenol	108-95-2	< 10.0	< 0.334	
Pyrene	129-00-0	< 1.00	< 0.330	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
1,2,4-Trichlorobenzene	120-82-1	< 10.0	< 0.355	
1-Methylnaphthalene	90-12-0	< 1.00	< 0.311	
2,4,5-Trichlorophenol	95-95-4	< 10.0	< 0.236	
2,4,6-Trichlorophenol	88-06-2	< 10.0	< 0.297	
2,4-Dichlorophenol	120-83-2	< 10.0	< 0.284	
2,4-Dimethylphenol	105-67-9	< 10.0	< 0.624	
2,4-Dinitrophenol	51-28-5	< 10.0	< 3.25	
2,4-Dinitrotoluene	121-14-2	< 10.0	< 1.65	
2,6-Dinitrotoluene	606-20-2	< 10.0	< 0.279	
2-Chloronaphthalene	91-58-7	< 1.00	< 0.330	
2-Chlorophenol	95-57-8	< 10.0	< 0.283	
2-Methylnaphthalene	91-57-6	< 1.00	< 0.311	
2-Methylphenol	95-48-7	< 10.0	< 0.312	
2-Nitroaniline	88-74-4	< 10.0	< 1.9	
2-Nitrophenol	88-75-5	< 10.0	< 0.320	
3&4-Methyl Phenol	3&4-Methyl Phenol	< 10.0	< 0.266	
3,3-Dichlorobenzidine	91-94-1	< 10.0	< 2.02	
3-Nitroaniline	99-09-2	< 10.0	< 0.308	
4,6-Dinitro-2-methylphenol	534-52-1	< 10.0	< 2.62	
4-Bromophenyl-phenylether	101-55-3	< 10.0	< 0.335	
4-Chloro-3-methylphenol	59-50-7	< 10.0	< 0.263	
4-Chloroaniline	106-47-8	< 10.0	< 0.382	
4-Chlorophenyl-phenylether	7005-72-3	< 10.0	< 0.303	
4-Nitroaniline	100-01-6	< 10.0	< 0.349	
4-Nitrophenol	100-02-7	< 10.0	< 2.01	
Acenaphthene	83-32-9	< 1.00	< 0.316	
Acenaphthylene	208-96-8	< 1.00	< 0.309	
Acetophenone	98-86-2	< 10.0	< 2.71	
Anthracene	120-12-7	< 1.00	< 0.291	
Atrazine	1912-24-9	< 10.0	< 1.53	
Benzaldehyde	100-52-7	< 10.0	< 1.4	
Benzo(a)anthracene	56-55-3	< 1.00	< 0.318	
Benzo(a)pyrene	50-32-8	< 0.200	< 0.0381	
Benzo(b)fluoranthene	205-99-2	< 1.00	< 0.270	
Benzo(g,h,i)perylene	191-24-2	< 1.00	< 0.329	
Benzo(k)fluoranthene	207-08-9	< 1.00	< 0.355	
Benzylbutyl phthalate	85-68-7	< 3.00	< 0.275	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Method Blank

Analyte	CAS	PQL	MDL	Qualifier
Biphenyl	92-52-4	< 10.0	< 0.206	
Bis(2-chlorethoxy)methane	111-91-1	< 10.0	< 0.329	
Bis(2-chloroethyl)ether	111-44-4	< 10.0	< 1.62	
Bis(2-chloroisopropyl)ether	108-60-1	< 10.0	< 0.445	
Bis(2-ethylhexyl)phthalate	117-81-7	< 3.00	< 0.709	
Caprolactam	105-60-2	< 10.0	< 0.583	
Carbazole	86-74-8	< 10.0	< 0.162	
Chrysene	218-01-9	< 1.00	< 0.332	
Dibenz(a,h)anthracene	53-70-3	< 0.200	< 0.0644	
Dibenzofuran	132-64-9	< 10.0	< 0.338	
Diethyl phthalate	84-66-2	< 3.00	< 0.282	
Dimethyl phthalate	131-11-3	< 3.00	< 0.283	
Di-n-butyl phthalate	84-74-2	< 3.00	< 0.266	
Di-n-octyl phthalate	117-84-0	< 3.00	< 0.278	
Fluoranthene	206-44-0	< 1.00	< 0.310	
Fluorene	86-73-7	< 1.00	< 0.323	
Hexachloro-1,3-butadiene	87-68-3	< 10.0	< 0.329	
Hexachlorobenzene	118-74-1	< 1.00	< 0.341	
Hexachlorocyclopentadiene	77-47-4	< 10.0	< 2.33	
Hexachloroethane	67-72-1	< 10.0	< 0.365	
Indeno(1,2,3-cd)pyrene	193-39-5	< 1.00	< 0.279	
Isophorone	78-59-1	< 10.0	< 0.272	
Naphthalene	91-20-3	< 1.00	< 0.372	
Nitrobenzene	98-95-3	< 10.0	< 0.367	
n-Nitrosodi-n-propylamine	621-64-7	< 10.0	< 0.403	
n-Nitrosodiphenylamine	86-30-6	< 10.0	< 0.304	
Pentachlorophenol	87-86-5	< 10.0	< 0.313	
Phenanthrene	85-01-8	< 1.00	< 0.366	
Phenol	108-95-2	< 10.0	< 0.334	
Pyrene	129-00-0	< 1.00	< 0.330	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,2,4-Trichlorobenzene	1	25	14.646	58.6	22.9 - 96.1	
2,4,5-Trichlorophenol	1	25	19.258	77	34.9 - 112	
2,4,6-Trichlorophenol	1	25	18.806	75.2	29.8 - 107	
2,4-Dichlorophenol	1	25	17.894	71.6	31.4 - 103	
2,4-Dimethylphenol	1	25	16.493	66	31.9 - 107	
2,4-Dinitrophenol	1	25	12.855	51.4	24.2 - 128	
2,4-Dinitrotoluene	1	25	19.341	77.4	31.2 - 105	
2,6-Dinitrotoluene	1	25	18.846	75.4	30.6 - 106	
2-Chloronaphthalene	1	25	18.564	74.3	33.6 - 105	
2-Chlorophenol	1	25	14.757	59	26.2 - 91.5	
2-Methylnaphthalene	1	25	16.536	66.1	33.8 - 98.6	
2-Methylphenol	1	25	13.225	52.9	26.4 - 86.9	
2-Nitroaniline	1	25	18.129	72.5	35.6 - 113	
2-Nitrophenol	1	25	17.368	69.5	25.9 - 106	
3&4-Methyl Phenol	1	25	13.876	55.5	27.9 - 92	
3,3-Dichlorobenzidine	1	25	19.647	78.6	27.2 - 142	
3-Nitroaniline	1	25	19.048	76.2	33.6 - 103	
4,6-Dinitro-2-methylphenol	1	25	18.643	74.6	18.4 - 148	
4-Bromophenyl-phenylether	1	25	19.842	79.4	40.7 - 116	
4-Chloro-3-methylphenol	1	25	18.150	72.6	35.7 - 100	
4-Chloroaniline	1	25	15.878	63.5	32 - 104	
4-Chlorophenyl-phenylether	1	25	20.074	80.3	39 - 113	
4-Nitroaniline	1	25	21.655	86.6	35.4 - 124	
4-Nitrophenol	1	25	9.1110	36.4	10 - 52.7	
Acenaphthene	1	25	18.962	75.8	38.7 - 109	
Acenaphthylene	1	25	18.054	72.2	36 - 106	
Acetophenone	1	25	12.377	49.5	41.6 - 104	
Anthracene	1	25	19.725	78.9	43.6 - 113	
Atrazine	1	25	18.816	75.3	50 - 123	
Benzaldehyde	1	25	10.900	43.6	11.7 - 132.2	
Benzo(a)anthracene	1	25	19.634	78.5	51.2 - 112	
Benzo(a)pyrene	1	25	21.330	85.3	45.6 - 106	
Benzo(b)fluoranthene	1	25	21.189	84.8	47.6 - 111	
Benzo(g,h,i)perylene	1	25	21.572	86.3	45.2 - 117	
Benzo(k)fluoranthene	1	25	21.147	84.6	49.4 - 114	
Benzylbutyl phthalate	1	25	17.178	68.7	31.8 - 123	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Biphenyl	1	25	19.281	77.1	38 - 103	
Bis(2-chlorethoxy)methane	1	25	16.803	67.2	37.2 - 111	
Bis(2-chloroethyl)ether	1	25	13.115	52.5	22.6 - 108	
Bis(2-chloroisopropyl)ether	1	25	15.654	62.6	32.9 - 100	
Bis(2-ethylhexyl)phthalate	1	25	16.869	67.5	36.9 - 134	
Caprolactam	1	25	4.7390	19	10 - 40.4	
Carbazole	1	25	21.909	87.6	49 - 110	
Chrysene	1	25	19.342	77.4	54.6 - 120	
Dibenz(a,h)anthracene	1	25	21.583	86.3	42.8 - 118	
Dibenzofuran	1	25	19.978	79.9	42.4 - 105	
Diethyl phthalate	1	25	19.219	76.9	36.5 - 129	
Dimethyl phthalate	1	25	19.654	78.6	35.3 - 128	
Di-n-butyl phthalate	1	25	19.086	76.3	41.8 - 120	
Di-n-octyl phthalate	1	25	17.163	68.7	39.7 - 112	
Fluoranthene	1	25	20.695	82.8	45.9 - 115	
Fluorene	1	25	19.838	79.4	41 - 112	
Hexachloro-1,3-butadiene	1	25	14.575	58.3	16.1 - 104	
Hexachlorobenzene	1	25	20.536	82.1	38.5 - 116	
Hexachlorocyclopentadiene	1	25	9.8960	39.6	10 - 121	
Hexachloroethane	1	25	12.219	48.9	16.5 - 89.8	
Indeno(1,2,3-cd)pyrene	1	25	21.473	85.9	45 - 116	
Isophorone	1	25	16.870	67.5	35.4 - 112	
Naphthalene	1	25	15.312	61.2	32.2 - 101	
Nitrobenzene	1	25	15.384	61.5	31.4 - 106	
n-Nitrosodi-n-propylamine	1	25	14.867	59.5	33.2 - 106	
n-Nitrosodiphenylamine	1	25	19.684	78.7	44.4 - 113	
Pentachlorophenol	1	25	16.619	66.5	10 - 97.4	
Phenanthrene	1	25	19.997	80	46.4 - 113	
Phenol	1	25	8.0170	32.1	10 - 57.9	
Pyrene	1	25	17.925	71.7	46.3 - 117	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,2,4-Trichlorobenzene	1	25	16.181	64.7	22.9 - 96.1	
2,4,5-Trichlorophenol	1	25	21.490	86	34.9 - 112	
2,4,6-Trichlorophenol	1	25	20.253	81	29.8 - 107	
2,4-Dichlorophenol	1	25	19.117	76.5	31.4 - 103	
2,4-Dimethylphenol	1	25	18.690	74.8	31.9 - 107	
2,4-Dinitrophenol	1	25	13.581	54.3	24.2 - 128	
2,4-Dinitrotoluene	1	25	20.423	81.7	31.2 - 105	
2,6-Dinitrotoluene	1	25	19.869	79.5	30.6 - 106	
2-Chloronaphthalene	1	25	20.547	82.2	33.6 - 105	
2-Chlorophenol	1	25	15.673	62.7	26.2 - 91.5	
2-Methylnaphthalene	1	25	18.286	73.1	33.8 - 98.6	
2-Methylphenol	1	25	14.423	57.7	26.4 - 86.9	
2-Nitroaniline	1	25	19.502	78	35.6 - 113	
2-Nitrophenol	1	25	18.477	73.9	25.9 - 106	
3&4-Methyl Phenol	1	25	15.431	61.7	27.9 - 92	
3,3-Dichlorobenzidine	1	25	20.634	82.5	27.2 - 142	
3-Nitroaniline	1	25	20.479	81.9	33.6 - 103	
4,6-Dinitro-2-methylphenol	1	25	19.975	79.9	18.4 - 148	
4-Bromophenyl-phenylether	1	25	21.427	85.7	40.7 - 116	
4-Chloro-3-methylphenol	1	25	19.912	79.6	35.7 - 100	
4-Chloroaniline	1	25	16.868	67.5	32 - 104	
4-Chlorophenyl-phenylether	1	25	21.773	87.1	39 - 113	
4-Nitroaniline	1	25	23.006	92	35.4 - 124	
4-Nitrophenol	1	25	9.7815	39.1	10 - 52.7	
Acenaphthene	1	25	20.551	82.2	38.7 - 109	
Acenaphthylene	1	25	19.991	80	36 - 106	
Acetophenone	1	25	13.294	53.2	41.6 - 104	
Anthracene	1	25	20.949	83.8	43.6 - 113	
Atrazine	1	25	19.559	78.2	50 - 123	
Benzaldehyde	1	25	12.676	50.7	11.7 - 132.2	
Benzo(a)anthracene	1	25	20.482	81.9	51.2 - 112	
Benzo(a)pyrene	1	25	22.525	90.1	45.6 - 106	
Benzo(b)fluoranthene	1	25	22.429	89.7	47.6 - 111	
Benzo(g,h,i)perylene	1	25	22.679	90.7	45.2 - 117	
Benzo(k)fluoranthene	1	25	22.447	89.8	49.4 - 114	
Benzylbutyl phthalate	1	25	17.600	70.4	31.8 - 123	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Biphenyl	1	25	21.153	84.6	38 - 103	
Bis(2-chlorethoxy)methane	1	25	18.039	72.2	37.2 - 111	
Bis(2-chloroethyl)ether	1	25	13.798	55.2	22.6 - 108	
Bis(2-chloroisopropyl)ether	1	25	16.479	65.9	32.9 - 100	
Bis(2-ethylhexyl)phthalate	1	25	17.348	69.4	36.9 - 134	
Caprolactam	1	25	4.6418	18.6	10 - 40.4	
Carbazole	1	25	23.444	93.8	49 - 110	
Chrysene	1	25	20.367	81.5	54.6 - 120	
Dibenz(a,h)anthracene	1	25	22.433	89.7	42.8 - 118	
Dibenzofuran	1	25	21.646	86.6	42.4 - 105	
Diethyl phthalate	1	25	20.819	83.3	36.5 - 129	
Dimethyl phthalate	1	25	21.075	84.3	35.3 - 128	
Di-n-butyl phthalate	1	25	20.628	82.5	41.8 - 120	
Di-n-octyl phthalate	1	25	17.805	71.2	39.7 - 112	
Fluoranthene	1	25	22.019	88.1	45.9 - 115	
Fluorene	1	25	21.462	85.8	41 - 112	
Hexachloro-1,3-butadiene	1	25	16.412	65.6	16.1 - 104	
Hexachlorobenzene	1	25	22.193	88.8	38.5 - 116	
Hexachlorocyclopentadiene	1	25	10.971	43.9	10 - 121	
Hexachloroethane	1	25	12.996	52	16.5 - 89.8	
Indeno(1,2,3-cd)pyrene	1	25	22.648	90.6	45 - 116	
Isophorone	1	25	18.470	73.9	35.4 - 112	
Naphthalene	1	25	16.639	66.6	32.2 - 101	
Nitrobenzene	1	25	16.861	67.4	31.4 - 106	
n-Nitrosodi-n-propylamine	1	25	15.483	61.9	33.2 - 106	
n-Nitrosodiphenylamine	1	25	21.282	85.1	44.4 - 113	
Pentachlorophenol	1	25	17.459	69.8	10 - 97.4	
Phenanthrene	1	25	21.295	85.2	46.4 - 113	
Phenol	1	25	9.0233	36.1	10 - 57.9	
Pyrene	1	25	18.893	75.6	46.3 - 117	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
1,2,4-Trichlorobenzene	1	25	14.646	58.6	16.181	64.7	22.9 - 96.1	9.95	27.5	
2,4,5-Trichlorophenol	1	25	19.258	77	21.490	86	34.9 - 112	11	23.9	
2,4,6-Trichlorophenol	1	25	18.806	75.2	20.253	81	29.8 - 107	7.41	24.1	
2,4-Dichlorophenol	1	25	17.894	71.6	19.117	76.5	31.4 - 103	6.61	24.9	
2,4-Dimethylphenol	1	25	16.493	66	18.690	74.8	31.9 - 107	12.5	25.7	
2,4-Dinitrophenol	1	25	12.855	51.4	13.581	54.3	24.2 - 128	5.49	20.5	
2,4-Dinitrotoluene	1	25	19.341	77.4	20.423	81.7	31.2 - 105	5.44	22	
2,6-Dinitrotoluene	1	25	18.846	75.4	19.869	79.5	30.6 - 106	5.28	23.1	
2-Chloronaphthalene	1	25	18.564	74.3	20.547	82.2	33.6 - 105	10.1	23	
2-Chlorophenol	1	25	14.757	59	15.673	62.7	26.2 - 91.5	6.02	26.5	
2-Methylnaphthalene	1	25	16.536	66.1	18.286	73.1	33.8 - 98.6	10	24.2	
2-Methylphenol	1	25	13.225	52.9	14.423	57.7	26.4 - 86.9	8.66	26.5	
2-Nitroaniline	1	25	18.129	72.5	19.502	78	35.6 - 113	7.29	20.9	
2-Nitrophenol	1	25	17.368	69.5	18.477	73.9	25.9 - 106	6.19	26.9	
3&4-Methyl Phenol	1	25	13.876	55.5	15.431	61.7	27.9 - 92	10.6	27	
3,3-Dichlorobenzidine	1	25	19.647	78.6	20.634	82.5	27.2 - 142	4.9	22.3	
3-Nitroaniline	1	25	19.048	76.2	20.479	81.9	33.6 - 103	7.24	21.8	
4,6-Dinitro-2-methylphenol	1	25	18.643	74.6	19.975	79.9	18.4 - 148	6.9	24.4	
4-Bromophenyl-phenylether	1	25	19.842	79.4	21.427	85.7	40.7 - 116	7.68	21	
4-Chloro-3-methylphenol	1	25	18.150	72.6	19.912	79.6	35.7 - 100	9.26	22.9	
4-Chloroaniline	1	25	15.878	63.5	16.868	67.5	32 - 104	6.05	26.4	
4-Chlorophenyl-phenylether	1	25	20.074	80.3	21.773	87.1	39 - 113	8.12	20.9	
4-Nitroaniline	1	25	21.655	86.6	23.006	92	35.4 - 124	6.05	23.1	
4-Nitrophenol	1	25	9.1110	36.4	9.7815	39.1	10 - 52.7	7.1	40	
Acenaphthene	1	25	18.962	75.8	20.551	82.2	38.7 - 109	8.05	21.5	
Acenaphthylene	1	25	18.054	72.2	19.991	80	36 - 106	10.2	21	
Acetophenone	1	25	12.377	49.5	13.294	53.2	41.6 - 104	7.15	24.8	
Anthracene	1	25	19.725	78.9	20.949	83.8	43.6 - 113	6.02	18.8	
Atrazine	1	25	18.816	75.3	19.559	78.2	50 - 123	3.87	21.5	
Benzaldehyde	1	25	10.900	43.6	12.676	50.7	11.7 - 132.2	15.1	25.2	
Benzo(a)anthracene	1	25	19.634	78.5	20.482	81.9	51.2 - 112	4.23	20	
Benzo(a)pyrene	1	25	21.330	85.3	22.525	90.1	45.6 - 106	5.45	20	
Benzo(b)fluoranthene	1	25	21.189	84.8	22.429	89.7	47.6 - 111	5.69	20	
Benzo(g,h,i)perylene	1	25	21.572	86.3	22.679	90.7	45.2 - 117	5	20	
Benzo(k)fluoranthene	1	25	21.147	84.6	22.447	89.8	49.4 - 114	5.97	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773341
Analysis Date:	3/4/2015 2:00:00 PM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-01, -02, -05, -06, -07, -08, -11, -13, -14, -15, -16, -18, -19, -20, -21, -22, -03		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD	RPD Limits	Qual
Benzylbutyl phthalate	1	25	17.178	68.7	17.600	70.4	31.8 - 123		2.43	20.7	
Biphenyl	1	25	19.281	77.1	21.153	84.6	38 - 103		9.26	20.1	
Bis(2-chlorethoxy)methane	1	25	16.803	67.2	18.039	72.2	37.2 - 111		7.1	24.1	
Bis(2-chloroethyl)ether	1	25	13.115	52.5	13.798	55.2	22.6 - 108		5.08	27.9	
Bis(2-chloroisopropyl)ether	1	25	15.654	62.6	16.479	65.9	32.9 - 100		5.14	25.1	
Bis(2-ethylhexyl)phthalate	1	25	16.869	67.5	17.348	69.4	36.9 - 134		2.8	23.6	
Caprolactam	1	25	4.7390	19	4.6418	18.6	10 - 40.4		2.07	40	
Carbazole	1	25	21.909	87.6	23.444	93.8	49 - 110		6.77	20	
Chrysene	1	25	19.342	77.4	20.367	81.5	54.6 - 120		5.16	20	
Dibenz(a,h)anthracene	1	25	21.583	86.3	22.433	89.7	42.8 - 118		3.86	20	
Dibenzofuran	1	25	19.978	79.9	21.646	86.6	42.4 - 105		8.01	20	
Diethyl phthalate	1	25	19.219	76.9	20.819	83.3	36.5 - 129		7.99	20	
Dimethyl phthalate	1	25	19.654	78.6	21.075	84.3	35.3 - 128		6.98	20.8	
Di-n-butyl phthalate	1	25	19.086	76.3	20.628	82.5	41.8 - 120		7.77	20.2	
Di-n-octyl phthalate	1	25	17.163	68.7	17.805	71.2	39.7 - 112		3.67	21.1	
Fluoranthene	1	25	20.695	82.8	22.019	88.1	45.9 - 115		6.2	20	
Fluorene	1	25	19.838	79.4	21.462	85.8	41 - 112		7.87	20.2	
Hexachloro-1,3-butadiene	1	25	14.575	58.3	16.412	65.6	16.1 - 104		11.9	31.2	
Hexachlorobenzene	1	25	20.536	82.1	22.193	88.8	38.5 - 116		7.76	20.1	
Hexachlorocyclopentadiene	1	25	9.8960	39.6	10.971	43.9	10 - 121		10.3	27.9	
Hexachloroethane	1	25	12.219	48.9	12.996	52	16.5 - 89.8		6.17	30.7	
Indeno(1,2,3-cd)pyrene	1	25	21.473	85.9	22.648	90.6	45 - 116		5.33	20	
Isophorone	1	25	16.870	67.5	18.470	73.9	35.4 - 112		9.05	21.5	
Naphthalene	1	25	15.312	61.2	16.639	66.6	32.2 - 101		8.31	23.8	
Nitrobenzene	1	25	15.384	61.5	16.861	67.4	31.4 - 106		9.16	25.7	
n-Nitrosodi-n-propylamine	1	25	14.867	59.5	15.483	61.9	33.2 - 106		4.06	23.7	
n-Nitrosodiphenylamine	1	25	19.684	78.7	21.282	85.1	44.4 - 113		7.8	20	
Pentachlorophenol	1	25	16.619	66.5	17.459	69.8	10 - 97.4		4.93	35.1	
Phenanthrene	1	25	19.997	80	21.295	85.2	46.4 - 113		6.29	20	
Phenol	1	25	8.0170	32.1	9.0233	36.1	10 - 57.9		11.8	35	
Pyrene	1	25	17.925	71.7	18.893	75.6	46.3 - 117		5.26	20	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,2,4-Trichlorobenzene	1	25	17.354	69.4	22.9 - 96.1	
1-Methylnaphthalene	1	25	21.037	84.1	34.7 - 102	
2,4,5-Trichlorophenol	1	25	19.373	77.5	34.9 - 112	
2,4,6-Trichlorophenol	1	25	19.714	78.9	29.8 - 107	
2,4-Dichlorophenol	1	25	18.817	75.3	31.4 - 103	
2,4-Dimethylphenol	1	25	17.895	71.6	31.9 - 107	
2,4-Dinitrophenol	1	25	7.7898	31.2	24.2 - 128	
2,4-Dinitrotoluene	1	25	19.422	77.7	31.2 - 105	
2,6-Dinitrotoluene	1	25	19.182	76.7	30.6 - 106	
2-Chloronaphthalene	1	25	20.204	80.8	33.6 - 105	
2-Chlorophenol	1	25	14.445	57.8	26.2 - 91.5	
2-Methylnaphthalene	1	25	19.207	76.8	33.8 - 98.6	
2-Methylphenol	1	25	13.220	52.9	26.4 - 86.9	
2-Nitroaniline	1	25	18.815	75.3	35.6 - 113	
2-Nitrophenol	1	25	19.063	76.3	25.9 - 106	
3&4-Methyl Phenol	1	25	14.552	58.2	27.9 - 92	
3,3-Dichlorobenzidine	1	25	20.664	82.7	27.2 - 142	
3-Nitroaniline	1	25	18.886	75.5	33.6 - 103	
4,6-Dinitro-2-methylphenol	1	25	16.351	65.4	18.4 - 148	
4-Bromophenyl-phenylether	1	25	20.854	83.4	40.7 - 116	
4-Chloro-3-methylphenol	1	25	18.846	75.4	35.7 - 100	
4-Chloroaniline	1	25	16.595	66.4	32 - 104	
4-Chlorophenyl-phenylether	1	25	20.827	83.3	39 - 113	
4-Nitroaniline	1	25	21.235	84.9	35.4 - 124	
4-Nitrophenol	1	25	6.1248	24.5	10 - 52.7	
Acenaphthene	1	25	20.108	80.4	38.7 - 109	
Acenaphthylene	1	25	19.156	76.6	36 - 106	
Acetophenone	1	25	12.995	52	41.6 - 104	
Anthracene	1	25	20.141	80.6	43.6 - 113	
Atrazine	1	25	18.867	75.5	50 - 123	
Benzaldehyde	1	25	12.859	51.4	11.7 - 132.2	
Benzo(a)anthracene	1	25	20.115	80.5	51.2 - 112	
Benzo(a)pyrene	1	25	21.661	86.6	45.6 - 106	
Benzo(b)fluoranthene	1	25	21.753	87	47.6 - 111	
Benzo(g,h,i)perylene	1	25	21.547	86.2	45.2 - 117	
Benzo(k)fluoranthene	1	25	21.614	86.5	49.4 - 114	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample (LCS)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Benzylbutyl phthalate	1	25	18.586	74.3	31.8 - 123	
Biphenyl	1	25	20.610	82.4	38 - 103	
Bis(2-chlorethoxy)methane	1	25	17.820	71.3	37.2 - 111	
Bis(2-chloroethyl)ether	1	25	13.765	55.1	22.6 - 108	
Bis(2-chloroisopropyl)ether	1	25	16.379	65.5	32.9 - 100	
Bis(2-ethylhexyl)phthalate	1	25	18.621	74.5	36.9 - 134	
Caprolactam	1	25	5.0984	20.4	10 - 40.4	
Carbazole	1	25	22.279	89.1	49 - 110	
Chrysene	1	25	19.810	79.2	54.6 - 120	
Dibenz(a,h)anthracene	1	25	21.554	86.2	42.8 - 118	
Dibenzofuran	1	25	20.861	83.4	42.4 - 105	
Diethyl phthalate	1	25	20.007	80	36.5 - 129	
Dimethyl phthalate	1	25	20.002	80	35.3 - 128	
Di-n-butyl phthalate	1	25	19.544	78.2	41.8 - 120	
Di-n-octyl phthalate	1	25	19.020	76.1	39.7 - 112	
Fluoranthene	1	25	21.118	84.5	45.9 - 115	
Fluorene	1	25	20.787	83.1	41 - 112	
Hexachloro-1,3-butadiene	1	25	17.368	69.5	16.1 - 104	
Hexachlorobenzene	1	25	21.765	87.1	38.5 - 116	
Hexachlorocyclopentadiene	1	25	10.598	42.4	10 - 121	
Hexachloroethane	1	25	14.055	56.2	16.5 - 89.8	
Indeno(1,2,3-cd)pyrene	1	25	21.857	87.4	45 - 116	
Isophorone	1	25	18.039	72.2	35.4 - 112	
Naphthalene	1	25	17.639	70.6	32.2 - 101	
Nitrobenzene	1	25	17.081	68.3	31.4 - 106	
n-Nitrosodi-n-propylamine	1	25	14.304	57.2	33.2 - 106	
n-Nitrosodiphenylamine	1	25	20.150	80.6	44.4 - 113	
Pentachlorophenol	1	25	13.750	55	10 - 97.4	
Phenanthrene	1	25	20.444	81.8	46.4 - 113	
Phenol	1	25	7.7894	31.2	10 - 57.9	
Pyrene	1	25	18.977	75.9	46.3 - 117	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
1,2,4-Trichlorobenzene	1	25	16.935	67.7	22.9 - 96.1	
1-Methylnaphthalene	1	25	20.511	82	34.7 - 102	
2,4,5-Trichlorophenol	1	25	19.281	77.1	34.9 - 112	
2,4,6-Trichlorophenol	1	25	19.362	77.4	29.8 - 107	
2,4-Dichlorophenol	1	25	18.447	73.8	31.4 - 103	
2,4-Dimethylphenol	1	25	17.837	71.3	31.9 - 107	
2,4-Dinitrophenol	1	25	9.0979	36.4	24.2 - 128	
2,4-Dinitrotoluene	1	25	20.152	80.6	31.2 - 105	
2,6-Dinitrotoluene	1	25	19.594	78.4	30.6 - 106	
2-Chloronaphthalene	1	25	20.129	80.5	33.6 - 105	
2-Chlorophenol	1	25	14.656	58.6	26.2 - 91.5	
2-Methylnaphthalene	1	25	18.745	75	33.8 - 98.6	
2-Methylphenol	1	25	13.974	55.9	26.4 - 86.9	
2-Nitroaniline	1	25	18.641	74.6	35.6 - 113	
2-Nitrophenol	1	25	18.368	73.5	25.9 - 106	
3&4-Methyl Phenol	1	25	14.662	58.6	27.9 - 92	
3,3-Dichlorobenzidine	1	25	20.434	81.7	27.2 - 142	
3-Nitroaniline	1	25	19.419	77.7	33.6 - 103	
4,6-Dinitro-2-methylphenol	1	25	16.883	67.5	18.4 - 148	
4-Bromophenyl-phenylether	1	25	20.148	80.6	40.7 - 116	
4-Chloro-3-methylphenol	1	25	18.285	73.1	35.7 - 100	
4-Chloroaniline	1	25	16.030	64.1	32 - 104	
4-Chlorophenyl-phenylether	1	25	20.384	81.5	39 - 113	
4-Nitroaniline	1	25	21.518	86.1	35.4 - 124	
4-Nitrophenol	1	25	6.5091	26	10 - 52.7	
Acenaphthene	1	25	19.855	79.4	38.7 - 109	
Acenaphthylene	1	25	19.307	77.2	36 - 106	
Acetophenone	1	25	13.151	52.6	41.6 - 104	
Anthracene	1	25	19.428	77.7	43.6 - 113	
Atrazine	1	25	19.372	77.5	50 - 123	
Benzaldehyde	1	25	12.794	51.2	11.7 - 132.2	
Benzo(a)anthracene	1	25	19.858	79.4	51.2 - 112	
Benzo(a)pyrene	1	25	21.828	87.3	45.6 - 106	
Benzo(b)fluoranthene	1	25	21.714	86.9	47.6 - 111	
Benzo(g,h,i)perylene	1	25	21.561	86.2	45.2 - 117	
Benzo(k)fluoranthene	1	25	21.619	86.5	49.4 - 114	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample Duplicate (LCSD)

Analyte	Dil	True Value	Found	% Rec	Control Limits	Qual
Benzylbutyl phthalate	1	25	18.218	72.9	31.8 - 123	
Biphenyl	1	25	20.423	81.7	38 - 103	
Bis(2-chlorethoxy)methane	1	25	17.268	69.1	37.2 - 111	
Bis(2-chloroethyl)ether	1	25	13.749	55	22.6 - 108	
Bis(2-chloroisopropyl)ether	1	25	16.517	66.1	32.9 - 100	
Bis(2-ethylhexyl)phthalate	1	25	18.459	73.8	36.9 - 134	
Caprolactam	1	25	5.2661	21.1	10 - 40.4	
Carbazole	1	25	21.879	87.5	49 - 110	
Chrysene	1	25	19.691	78.8	54.6 - 120	
Dibenz(a,h)anthracene	1	25	21.291	85.2	42.8 - 118	
Dibenzofuran	1	25	20.604	82.4	42.4 - 105	
Diethyl phthalate	1	25	20.240	81	36.5 - 129	
Dimethyl phthalate	1	25	20.080	80.3	35.3 - 128	
Di-n-butyl phthalate	1	25	19.465	77.9	41.8 - 120	
Di-n-octyl phthalate	1	25	18.686	74.7	39.7 - 112	
Fluoranthene	1	25	20.596	82.4	45.9 - 115	
Fluorene	1	25	20.607	82.4	41 - 112	
Hexachloro-1,3-butadiene	1	25	17.217	68.9	16.1 - 104	
Hexachlorobenzene	1	25	21.510	86	38.5 - 116	
Hexachlorocyclopentadiene	1	25	11.019	44.1	10 - 121	
Hexachloroethane	1	25	14.194	56.8	16.5 - 89.8	
Indeno(1,2,3-cd)pyrene	1	25	21.675	86.7	45 - 116	
Isophorone	1	25	17.541	70.2	35.4 - 112	
Naphthalene	1	25	17.018	68.1	32.2 - 101	
Nitrobenzene	1	25	16.747	67	31.4 - 106	
n-Nitrosodi-n-propylamine	1	25	14.627	58.5	33.2 - 106	
n-Nitrosodiphenylamine	1	25	19.661	78.6	44.4 - 113	
Pentachlorophenol	1	25	13.454	53.8	10 - 97.4	
Phenanthrene	1	25	20.007	80	46.4 - 113	
Phenol	1	25	7.8909	31.6	10 - 57.9	
Pyrene	1	25	18.606	74.4	46.3 - 117	

Quality Control Summary

SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control	% Rec	Control RPD	
							Limits	Qual	% RPD	Limits Qual
1,2,4-Trichlorobenzene	1	25	17.354	69.4	16.935	67.7	22.9 - 96.1		2.44	27.5
1-Methylnaphthalene	1	25	21.037	84.1	20.511	82	34.7 - 102		2.53	24.9
2,4,5-Trichlorophenol	1	25	19.373	77.5	19.281	77.1	34.9 - 112		0.48	23.9
2,4,6-Trichlorophenol	1	25	19.714	78.9	19.362	77.4	29.8 - 107		1.8	24.1
2,4-Dichlorophenol	1	25	18.817	75.3	18.447	73.8	31.4 - 103		1.99	24.9
2,4-Dimethylphenol	1	25	17.895	71.6	17.837	71.3	31.9 - 107		0.32	25.7
2,4-Dinitrophenol	1	25	7.7898	31.2	9.0979	36.4	24.2 - 128		15.5	20.5
2,4-Dinitrotoluene	1	25	19.422	77.7	20.152	80.6	31.2 - 105		3.69	22
2,6-Dinitrotoluene	1	25	19.182	76.7	19.594	78.4	30.6 - 106		2.13	23.1
2-Chloronaphthalene	1	25	20.204	80.8	20.129	80.5	33.6 - 105		0.38	23
2-Chlorophenol	1	25	14.445	57.8	14.656	58.6	26.2 - 91.5		1.45	26.5
2-Methylnaphthalene	1	25	19.207	76.8	18.745	75	33.8 - 98.6		2.43	24.2
2-Methylphenol	1	25	13.220	52.9	13.974	55.9	26.4 - 86.9		5.55	26.5
2-Nitroaniline	1	25	18.815	75.3	18.641	74.6	35.6 - 113		0.93	20.9
2-Nitrophenol	1	25	19.063	76.3	18.368	73.5	25.9 - 106		3.71	26.9
3&4-Methyl Phenol	1	25	14.552	58.2	14.662	58.6	27.9 - 92		0.75	27
3,3-Dichlorobenzidine	1	25	20.664	82.7	20.434	81.7	27.2 - 142		1.12	22.3
3-Nitroaniline	1	25	18.886	75.5	19.419	77.7	33.6 - 103		2.78	21.8
4,6-Dinitro-2-methylphenol	1	25	16.351	65.4	16.883	67.5	18.4 - 148		3.2	24.4
4-Bromophenyl-phenylether	1	25	20.854	83.4	20.148	80.6	40.7 - 116		3.44	21
4-Chloro-3-methylphenol	1	25	18.846	75.4	18.285	73.1	35.7 - 100		3.02	22.9
4-Chloroaniline	1	25	16.595	66.4	16.030	64.1	32 - 104		3.47	26.4
4-Chlorophenyl-phenylether	1	25	20.827	83.3	20.384	81.5	39 - 113		2.15	20.9
4-Nitroaniline	1	25	21.235	84.9	21.518	86.1	35.4 - 124		1.32	23.1
4-Nitrophenol	1	25	6.1248	24.5	6.5091	26	10 - 52.7		6.08	40
Acenaphthene	1	25	20.108	80.4	19.855	79.4	38.7 - 109		1.27	21.5
Acenaphthylene	1	25	19.156	76.6	19.307	77.2	36 - 106		0.78	21
Acetophenone	1	25	12.995	52	13.151	52.6	41.6 - 104		1.2	24.8
Anthracene	1	25	20.141	80.6	19.428	77.7	43.6 - 113		3.61	18.8
Atrazine	1	25	18.867	75.5	19.372	77.5	50 - 123		2.64	21.5
Benzaldehyde	1	25	12.859	51.4	12.794	51.2	11.7 - 132.2		0.51	25.2
Benzo(a)anthracene	1	25	20.115	80.5	19.858	79.4	51.2 - 112		1.28	20
Benzo(a)pyrene	1	25	21.661	86.6	21.828	87.3	45.6 - 106		0.77	20
Benzo(b)fluoranthene	1	25	21.753	87	21.714	86.9	47.6 - 111		0.18	20
Benzo(g,h,i)perylene	1	25	21.547	86.2	21.561	86.2	45.2 - 117		0.06	20

Quality Control Summary


SDG: L751256

TRC Solutions - Austin, TX

Test:	Semi-Volatile Organic Compounds by Method 8270 C		
Project No:	227000	Matrix:	Water - ug/L
Project:	Lovington Lea Refinery	EPA ID:	TN00003
Collection Date:	2/26/2015	Analytic Batch:	WG773528
Analysis Date:	3/6/2015 4:48:00 AM	Analyst:	377
Instrument ID:	BNAMS23, BNAMS21	Prep Date:	3/3/2015
Sample Numbers:	L751256-09, -10, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -36, -37, -38, -39, -40		

Laboratory Control Sample / Laboratory Control Sample Duplicate

Analyte	Dil	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Rec Qual	Control RPD Limits	RPD Qual
Benzo(k)fluoranthene	1	25	21.614	86.5	21.619	86.5	49.4 - 114	0.02	20	
Benzylbutyl phthalate	1	25	18.586	74.3	18.218	72.9	31.8 - 123	2	20.7	
Biphenyl	1	25	20.610	82.4	20.423	81.7	38 - 103	0.91	20.1	
Bis(2-chlorethoxy)methane	1	25	17.820	71.3	17.268	69.1	37.2 - 111	3.15	24.1	
Bis(2-chloroethyl)ether	1	25	13.765	55.1	13.749	55	22.6 - 108	0.12	27.9	
Bis(2-chloroisopropyl)ether	1	25	16.379	65.5	16.517	66.1	32.9 - 100	0.84	25.1	
Bis(2-ethylhexyl)phthalate	1	25	18.621	74.5	18.459	73.8	36.9 - 134	0.87	23.6	
Caprolactam	1	25	5.0984	20.4	5.2661	21.1	10 - 40.4	3.24	40	
Carbazole	1	25	22.279	89.1	21.879	87.5	49 - 110	1.82	20	
Chrysene	1	25	19.810	79.2	19.691	78.8	54.6 - 120	0.6	20	
Dibenz(a,h)anthracene	1	25	21.554	86.2	21.291	85.2	42.8 - 118	1.22	20	
Dibenzofuran	1	25	20.861	83.4	20.604	82.4	42.4 - 105	1.24	20	
Diethyl phthalate	1	25	20.007	80	20.240	81	36.5 - 129	1.16	20	
Dimethyl phthalate	1	25	20.002	80	20.080	80.3	35.3 - 128	0.39	20.8	
Di-n-butyl phthalate	1	25	19.544	78.2	19.465	77.9	41.8 - 120	0.41	20.2	
Di-n-octyl phthalate	1	25	19.020	76.1	18.686	74.7	39.7 - 112	1.77	21.1	
Fluoranthene	1	25	21.118	84.5	20.596	82.4	45.9 - 115	2.5	20	
Fluorene	1	25	20.787	83.1	20.607	82.4	41 - 112	0.87	20.2	
Hexachloro-1,3-butadiene	1	25	17.368	69.5	17.217	68.9	16.1 - 104	0.87	31.2	
Hexachlorobenzene	1	25	21.765	87.1	21.510	86	38.5 - 116	1.18	20.1	
Hexachlorocyclopentadiene	1	25	10.598	42.4	11.019	44.1	10 - 121	3.89	27.9	
Hexachloroethane	1	25	14.055	56.2	14.194	56.8	16.5 - 89.8	0.98	30.7	
Indeno(1,2,3-cd)pyrene	1	25	21.857	87.4	21.675	86.7	45 - 116	0.84	20	
Isophorone	1	25	18.039	72.2	17.541	70.2	35.4 - 112	2.8	21.5	
Naphthalene	1	25	17.639	70.6	17.018	68.1	32.2 - 101	3.58	23.8	
Nitrobenzene	1	25	17.081	68.3	16.747	67	31.4 - 106	1.97	25.7	
n-Nitrosodi-n-propylamine	1	25	14.304	57.2	14.627	58.5	33.2 - 106	2.23	23.7	
n-Nitrosodiphenylamine	1	25	20.150	80.6	19.661	78.6	44.4 - 113	2.46	20	
Pentachlorophenol	1	25	13.750	55	13.454	53.8	10 - 97.4	2.18	35.1	
Phenanthrene	1	25	20.444	81.8	20.007	80	46.4 - 113	2.16	20	
Phenol	1	25	7.7894	31.2	7.8909	31.6	10 - 57.9	1.29	35	
Pyrene	1	25	18.977	75.9	18.606	74.4	46.3 - 117	1.97	20	

Billing Information: TRC Environmental 505 E. Huntland Drive, Suite 250 Austin, TX 78752			Analysis / Container / Preservative														Chain of Custody Page ____ of ____												
			 L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859																										
Email To: jspeer@trcsolutions.com			City/State Collected:			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>VOCs (8260) - Select List</td> <td>LL SVOCs (8270) - TCL + 1-methylnaphthalene</td> <td>Total Metals (7470) - Hg - Lab Filtered L2</td> <td>Dissolved Metals (6020) - Select List - Lab Filtered</td> <td>Anions (300) - Cl, F, SO4</td> <td>Alkalinity</td> <td>pH</td> <td>Specific Conductivity</td> <td>TDS</td> <td>Nitrate/Nitrite (353.2) L2</td> </tr> </table>														VOCs (8260) - Select List	LL SVOCs (8270) - TCL + 1-methylnaphthalene	Total Metals (7470) - Hg - Lab Filtered L2	Dissolved Metals (6020) - Select List - Lab Filtered	Anions (300) - Cl, F, SO4	Alkalinity	pH	Specific Conductivity	TDS	Nitrate/Nitrite (353.2) L2
VOCs (8260) - Select List	LL SVOCs (8270) - TCL + 1-methylnaphthalene	Total Metals (7470) - Hg - Lab Filtered L2	Dissolved Metals (6020) - Select List - Lab Filtered	Anions (300) - Cl, F, SO4	Alkalinity															pH	Specific Conductivity	TDS	Nitrate/Nitrite (353.2) L2						
Project # 000			Lab Project # TRC ATx0218155																										
Facility ID #			P.O. #																										
Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50% Three Day 25%			Date Results Needed Default			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2"> Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes </td> <td rowspan="2"> No. of Cntrs </td> </tr> <tr> <td colspan="2"></td> </tr> </table>										Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		No. of Cntrs											
Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		No. of Cntrs																											
Grab	Matrix *	Depth	Date	Time												Rem./Contaminant	Sample # (lab only)												
mp	GW	-	2-26-15	1455	9	X	X	X	X	X	X	X	X	X	X	X		-01											
	↓	-	↓	1645	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-02											
	↓	-	↓	1655	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-03											
ap	GW	-	2-26-15	1730	3	X												-04											
mp	GW	-	2-27-15	830	5	X	X											-05											
mp	GW	-	2-27-15	900	9	X	X	X	X	X	X	X	X	X	X	X		-06											
	↓	-	↓	930	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		-07											
mp	GW	-	2-27-15	1000	6	X	X	X										-08											
mp	GW	-	2-27-15	1130	9	X	X	X	X	X	X	X	X	X	X	X		-09											
	↓	-	↓	1130	9	X	X	X	X	X	X	X	X	X	X	X		-10											

WasteWater DW - Drinking Water OT - Other 1603937349489				pH _____ Temp _____	
0.0 micron filter and dissolved metals with 0.45 micron filter.				Flow _____ Other _____	
Date:	Time:	Received by: (Signature)		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	
2-27-15	1500			Condition: (lab use only) 51	
Date:	Time:	Received by: (Signature)		Temp: _____ °C Bottles Received: _____	
				COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Date:	Time:	Received for lab by: (Signature)		pH Checked: _____ NCF: <input checked="" type="checkbox"/>	
		Dalib		Date: 3-3-15 Time: 0916 L2	

620080464008, 4019, 3994, 4020
 630937349515, 9490, 9504
 585147024089, 4078

Billing Information: TRC Environmental 505 E. Huntland Drive, Suite 250 Austin, TX 78752		Analysis / Container / Preservative												Chain of Custody Page <u> </u> of <u> </u>		
		<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>ESC LAB SCIENCES</p> <p>YOUR LAB OF CHOICE</p> <p>12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-757-5859 Fax: 615-758-5859</p> </div> <div style="width: 35%; text-align: center;"> </div> </div>														
Email To: jspeer@trcsolutions.com																
City/State Collected:																
Project #														Lab Project #		<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>L# <u>L791256</u></p> <p>Table #</p> <p>Acctnum:</p> <p>Template:</p> <p>Prelogin:</p> <p>TSR:</p> <p>PB:</p> <p>Shipped Via:</p> </div> <div style="width: 35%;"> <p>Rem./Contaminant</p> <p>Sample # (lab only)</p> </div> </div>
Facility ID #		P.O. #														
Rush? (Lab MUST Be Notified) Same Day200% Next Day100% Two Day50% Three Day25%		Date Results Needed Default Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes														
		No. of Cntrs														
Grab	Matrix *	Depth	Date	Time		VOCs (8260) - Select List	LL SVOCs (8270) - TCL + 1-methylnaphthalene	Total Metals (7470) - Hg - Lab Filtered	Dissolved Metals (6020) - Select List - Lab Filtered	Anions (300) - Cl, F, SO4	Alkalinity	pH	Specific Conductivity	TDS	Nitrate/Nitrite (353.2)	
mp	GLW	-	2-24-15	1530	9	X	X	X	X	X	X	X	X	X	X	
	↓	-	↓	1715	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
mp	GLW	-	2-25-15	900	9	X	X	X	X	X	X	X	X	X	X	
	↓	-	↓	1135	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
	↓	-	↓	1310	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
	↓	-	↓	1425	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
	↓	-	↓	1555	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
	↓	-	↓	1735	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
	↓	-	↓	1840	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
	↓	-	↓	1020	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	

WasteWater **DW** - Drinking Water **OT** - Other _____
 0.0 micron filter and dissolved metals with 0.45 micron filter.

pH _____ Temp _____
 Flow _____ Other _____

Hold # _____
 Condition: _____ (lab use only)
 COC Seal Intact: Y N NA
 pH Checked: L2 NCF: ✓

Date: <u>2-27-15</u>	Time: <u>1500</u>	Received by: (Signature) _____	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____
Date: _____	Time: _____	Received by: (Signature) _____	Temp: <u>3.0</u> °C Bottles Received: <u>334</u>
Date: _____	Time: _____	Received for lab by: (Signature) <u>Walters</u>	Date: <u>3-3-15</u> Time: <u>0900</u>

Billing Information: TRC Environmental 505 E. Huntland Drive, Suite 250 Austin, TX 78752			Analysis / Container / Preservative										Chain of Custody Page ____ of ____ ESC LAB SCIENCES YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 	
Email To: jspeer@trcsolutions.com			City/State Collected:			VOCs (8260) - Select List LL SVOCs (8270) - TCL + 1-methylnaphthalene Total Metals (7470) - Hg - Lab Filtered L2 Dissolved Metals (6020) - Select List - Lab Filtered Anions (300) - Cl, F, SO4 Alkalinity pH Specific Conductivity TDS Nitrate/Nitrite (353.2) L2			L# L751256					
Project # 000			Lab Project # TRCATX021815S						Table #					
Facility ID #			P.O. #						Acctnum:					
Date Results Needed Default			Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes						Template:					
Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50% Three Day 25%			No. of Cntrs			Prelogin:								
Date			Time			TSR:								
Date			Time			PB:								
Date			Time			Shipped Via:								
Date			Time			Rem./Contaminant Sample # (lab only)								
Grab	Matrix *	Depth	Date	Time	Cntrs									
up	Grw	-	2-25-15	1315	4	X	X							
		-		1430										
		-		1435										
		-		1755										
ap	Grw	-	2-25-15	1900	3	X								
up	Grw	-	2-26-15	1320	4	X	X							
		-		1320										
		-		1500										
		-		1630										
up	Grw	-	2-26-15	1305										

WasteWater DW - Drinking Water OT - Other _____
 0.45 micron filter and dissolved metals with 0.45 micron filter.

pH _____ Temp _____
 Flow _____ Other _____

Hold # _____
 Condition: **F_i** (lab use only)
 COC Seal Intact: ☒ Y ☐ N ☐ NA
 pH Checked: **L2**
 NCF: ☒

Date: **2-27-15** Time: **1500**
 Received by: (Signature) _____
 Date: _____ Time: _____
 Received by: (Signature) _____
 Date: _____ Time: _____
 Received for lab by: (Signature) **D. Dalby**

Samples returned via: ☐ UPS
☒ FedEx ☐ Courier ☐ _____
 Temp: **3.8** °C Bottles Received: **334**
 Date: **3-3-15** Time: **0900**

[illegible]

Dustin Cornelison

To: Pam Langford; Andy Vann; Login
Cc: Mark Beasley
Subject: RE: TRCATX NCF-DC

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ESC Lab Sciences
Non-Conformance Form

Login #: L751256	Client: TRCATX	Date: 03/03/15	Evaluated by: Dustin Cornelison
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Non-Conformance (check applicable items)

Sample Integrity		Chain of Custody Clarification	
Parameter(s) past holding time	X	Login Clarification Needed	If Broken Container:
Improper temperature		Chain of custody is incomplete	Insufficient packing material around container
Improper container type	X	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation		Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Cour Sample was frozen
Insufficient sample volume.		Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.		Sample ids on containers do not match ids on coc	If no Chain of Custody:
Vials received with headspace.		Trip Blank not received.	Received by:
Broken container		Client did not "X" analysis.	Date/Time:
Broken container:		Chain of Custody is missing	Temp./Cont. Rec./pH:
Sufficient sample remains			Carrier:
			Tracking#

Login Comments: 1.) Received AC-2-26-14 instead of AC-2-26-15, please advise on correct sample ID. 2.) What Total and Dissolved Metals?

Quality Control Summary SDG: L753137

**For: TRC Solutions - Austin, TX
Lovington Lea Refinery**

L753137

Lab SampleID.

L753137-01
L753137-02
L753137-03
L753137-04
L753137-05

Client ID

NORTH WELL
SOUTH WELL
DUP-4
EAST WELL
TRIP BLANK-3

Appendix A: Laboratory Data Package Cover Page

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

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - Items consistent with NELAC Chapter 5,
 - dilution factors,
 - preparation methods,
 - cleanup methods, and
 - if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - Calculated recovery (%R), and
 - 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:
 - LCS spiking amounts,
 - Calculated %R for each analyte, and
 - The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - Samples associated with the MS/MSD clearly identified,
 - MS/MSD spiking amounts,
 - Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - Calculated %Rs and relative percent differences (RPDs), and
 - The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - The amount of analyte measured in the duplicate,
 - The calculated RPD, and
 - 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.
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.

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775411 HG				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775411 HG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775431 HGD				

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

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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Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775431 HGD				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).
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Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775448 8270TX				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
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Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775448 8270TX				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/15/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L753137
Reviewer Name: ESC Representative	Prep Batch Numbers: WG775448 8270TX

Sample(s): NORTH WELL, SOUTH WELL, DUP-4, EAST WELL

Samples(s) were analyzed for Semi-Volatile Organic Compounds by Method 8270 C

ER#:	Description
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1	The surrogate recoveries were outside the laboratory control limits for L753137-01, L753137-02, L753137-03, and L753137-04. The surrogate recoveries for the remaining samples were within method limits.
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2	The laboratory control sample or laboratory control sample duplicate recoveries were outside the laboratory control limits for Acetophenone
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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, -04, and -05				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775488 V8260				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, -04, and -05				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775488 V8260				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/15/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L753137
Reviewer Name: ESC Representative	Prep Batch Numbers: WG775488 V8260

Sample(s): NORTH WELL, SOUTH WELL, DUP-4, EAST WELL, TRIP BLANK-3

Samples(s) were analyzed for Volatile Organic Compounds by Method 8260B

ER#:	Description
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- | | |
|----------|---|
| 1 | The matrix spike or matrix spike duplicate recoveries were over the laboratory control limits for 2-Butanone (MEK), 4-Methyl-2-pentanone (MIBK), and Acetone. |
|----------|---|

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775568 PH				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775568 PH				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/15/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L753137
Reviewer Name: ESC Representative	Prep Batch Numbers: WG775568 PH

Sample(s): NORTH WELL, SOUTH WELL, DUP-4, EAST WELL

Samples(s) were analyzed for pH by Method 9040C

ER#:	Description
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- | | |
|----------|--|
| 1 | The method specified holding times were exceeded for samples L753137-01, L753137-02, L753137-03, and L753137-04. |
|----------|--|

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775627 TDS				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775627 TDS				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			✓		
		Were percent RSDs or correlation coefficient criteria met?			✓		
		Was the number of standards recommended in the method used for all analytes?			✓		
		Were all points generated between the lowest and highest standard used to calculate the curve?			✓		
		Are ICAL data available for all instruments used?			✓		
		Has the initial calibration curve been verified using an appropriate second source standard?			✓		
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?			✓		
		Were percent differences for each analyte within the method-required QC limits?			✓		
		Was the ICAL curve verified for each analyte?			✓		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			✓		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775693 SPCON				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG775693 SPCON				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776045 CHLORIDE				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776045 CHLORIDE				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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.
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- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776173 ALK				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776173 ALK				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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.
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- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776313 AGDICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			✓		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		✓			1
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			✓		
		Were analytical duplicates analyzed at the appropriate frequency?			✓		
		Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776313 AGDICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		✓			2
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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.
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- NA = Not applicable.
- NR = Not Reviewed.
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/15/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L753137
Reviewer Name: ESC Representative	Prep Batch Numbers: WG776313 AGDICP

Sample(s): NORTH WELL, SOUTH WELL, DUP-4, EAST WELL

Samples(s) were analyzed for Trace Metals by Method 6010B

ER#:	Description
-------------	--------------------

1	The matrix spike or matrix spike duplicate recoveries were below the laboratory control limits for Iron,Dissolved and Sodium,Dissolved.
----------	---

2	The serial dilution relative percent difference was not within laboratory control limits for Iron,Dissolved. The post digest spike percent recovery was not within laboratory control limits for Iron,Dissolved.
----------	--

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776640 UDG				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776640 UDG				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776789 NO2NO3				

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

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).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: ESC Lab Sciences			LRC Date: 4/15/2015				
Project Name: Lovington Lea Refinery			Laboratory Job Number: L753137-01, -02, -03, and -04				
Reviewer Name: ESC Representative			Prep Batch Number(s): WG776789 NO2NO3				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			✓		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?			✓		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			✓		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences.	LRC Date: 4/15/2015
Project Name: Lovington Lea Refinery	Laboratory Job Number: L753137
Reviewer Name: ESC Representative	Prep Batch Numbers: WG776789 NO2NO3

Sample(s): NORTH WELL, SOUTH WELL, DUP-4, EAST WELL

Samples(s) were analyzed for Nitrate-Nitrite by Method 353.2

ER#:	Description
-------------	--------------------

- | | |
|----------|---|
| 1 | The matrix spike or matrix spike duplicate recoveries were below the laboratory control limits for Nitrate-Nitrite. |
|----------|---|



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Report Summary

Tuesday April 14, 2015

Report Number: L753137

Samples Received: 03/12/15

Client Project: 227000

Description: Lovington Lea Refinery

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Pam Langford , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Est. 1970

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

Case Narrative

Tuesday April 14, 2015

Report Number: L753137

Samples Received: 03/12/15

Client Project: 227000

Description: Lovington Lea Refinery

Other Comments

Acid surrogate percent recoveries were below target range in the initial extraction and analysis of SW846 Method 8270 compounds. Re-extraction of the samples was performed, however this was done outside the method specified holding time. Reanalysis of the samples for this method yielded values which confirmed those of the initial analysis, with surrogate percent recoveries which met acceptance limits. The original analysis, performed within the method specified holding time, is being reported as primary for these samples.



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : NORTH WELL

Collected By : JA/JO
Collection Date : 03/09/15 16:30

ESC Sample # : L753137-01

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	11.	0.052	1.0	mg/l		9056	03/16/15	1
Fluoride	0.098	0.0099	0.10	mg/l	J	9056	03/16/15	1
Sulfate	7.3	0.077	5.0	mg/l		9056	03/16/15	1
Alkalinity	170	2.6	20.	mg/l		2320 B-	03/17/15	1
pH	7.4	-33.		su	JT8	9040C	03/13/15	1
Nitrate-Nitrite	2.7	0.020	0.10	mg/l		353.2	03/21/15	1
Specific Conductance	900	-33.		umhos/cm	J	9050A	03/16/15	1
Dissolved Solids	520	2.8	10.	mg/l		2540 C-	03/16/15	1
Arsenic,Dissolved	0.0055	0.00025	0.0020	mg/l		6020	03/19/15	1
Boron,Dissolved	0.15	0.0015	0.020	mg/l		6020	03/19/15	1
Lead,Dissolved	0.00062	0.00024	0.0020	mg/l	J	6020	03/19/15	1
Molybdenum,Dissolved	0.0032	0.00014	0.0050	mg/l	J	6020	03/19/15	1
Uranium,Dissolved	0.0016	0.00033	0.010	mg/l	J	6020	03/19/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/13/15	1
Aluminum,Dissolved	U	0.035	0.10	mg/l		6010B	03/18/15	1
Barium,Dissolved	0.11	0.0017	0.0050	mg/l		6010B	03/18/15	1
Cadmium,Dissolved	U	0.00070	0.0050	mg/l		6010B	03/18/15	1
Calcium,Dissolved	110	0.046	1.0	mg/l		6010B	03/18/15	1
Chromium,Dissolved	U	0.0014	0.010	mg/l		6010B	03/18/15	1
Cobalt,Dissolved	U	0.0023	0.010	mg/l		6010B	03/18/15	1
Copper,Dissolved	0.012	0.0053	0.020	mg/l	J	6010B	03/18/15	1
Iron,Dissolved	U	0.014	0.10	mg/l		6010B	03/18/15	1
Magnesium,Dissolved	12.	0.011	1.0	mg/l		6010B	03/18/15	1
Manganese,Dissolved	U	0.0012	0.010	mg/l		6010B	03/18/15	1
Nickel,Dissolved	U	0.0049	0.020	mg/l		6010B	03/18/15	1
Potassium,Dissolved	2.4	0.10	1.0	mg/l		6010B	03/18/15	1
Selenium,Dissolved	0.0097	0.0074	0.020	mg/l	J	6010B	03/18/15	1
Silver,Dissolved	U	0.0028	0.010	mg/l		6010B	03/18/15	1
Sodium,Dissolved	67.	0.098	1.0	mg/l		6010B	03/18/15	1
Zinc,Dissolved	0.015	0.0059	0.050	mg/l	J	6010B	03/18/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/20/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/20/15	1

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L753137-01 (PH) - 7.4 at 20.6c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-01

Sample ID : NORTH WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 16:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/20/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/20/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/20/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/20/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/20/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/20/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/20/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/20/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/20/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/20/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/20/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/20/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/20/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/20/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : NORTH WELL

Collected By : JA/JO
Collection Date : 03/09/15 16:30

ESC Sample # : L753137-01

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/20/15	1
Dibromofluoromethane	107.			% Rec.		8260B	03/20/15	1
4-Bromofluorobenzene	99.0			% Rec.		8260B	03/20/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Acetophenone	U	0.0025	0.010	mg/l	J4	8270 C	03/17/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/17/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/17/15	1
Benzo(a)anthracene	U	0.0000029	0.0010	mg/l		8270 C	03/17/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/17/15	1
Benzo(b)fluoranthene	U	0.0000021	0.0010	mg/l		8270 C	03/17/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/17/15	1
Benzo(g,h,i)perylene	U	0.0000023	0.0010	mg/l		8270 C	03/17/15	1
Benzo(a)pyrene	U	0.0000038	0.00020	mg/l		8270 C	03/20/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/17/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/17/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/17/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/20/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/17/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/17/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/17/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/17/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-01

Sample ID : NORTH WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 16:30

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/17/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/17/15	1
Di-n-butyl phthalate	0.00071	0.00027	0.0030	mg/l	J	8270 C	03/17/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/17/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/17/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/17/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/17/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/17/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/17/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/17/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/17/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Surrogate Recovery								
2-Fluorophenol	4.72			% Rec.	J2	8270 C	03/17/15	1
Phenol-d5	8.10			% Rec.		8270 C	03/17/15	1
Nitrobenzene-d5	11.8			% Rec.	J2	8270 C	03/17/15	1
2-Fluorobiphenyl	32.9			% Rec.		8270 C	03/17/15	1
2,4,6-Tribromophenol	51.5			% Rec.		8270 C	03/17/15	1
p-Terphenyl-d14	65.6			% Rec.		8270 C	03/17/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : SOUTH WELL

Collected By : JA/JO
Collection Date : 03/09/15 17:25

ESC Sample # : L753137-02

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	340	0.52	10.	mg/l		9056	03/16/15	10
Fluoride	0.82	0.0099	0.10	mg/l		9056	03/17/15	1
Sulfate	99.	0.077	5.0	mg/l		9056	03/17/15	1
Alkalinity	170	2.6	20.	mg/l		2320 B-	03/17/15	1
pH	7.2	-33.		su	JT8	9040C	03/13/15	1
Nitrate-Nitrite	2.7	0.020	0.10	mg/l		353.2	03/21/15	1
Specific Conductance	1700	-33.		umhos/cm	J	9050A	03/16/15	1
Dissolved Solids	1100	2.8	10.	mg/l		2540 C-	03/16/15	1
Arsenic, Dissolved	0.0040	0.00025	0.0020	mg/l		6020	03/19/15	1
Boron, Dissolved	0.20	0.0015	0.020	mg/l		6020	03/19/15	1
Lead, Dissolved	0.0031	0.00024	0.0020	mg/l		6020	03/19/15	1
Molybdenum, Dissolved	0.0020	0.00014	0.0050	mg/l	J	6020	03/19/15	1
Uranium, Dissolved	0.0021	0.00033	0.010	mg/l	J	6020	03/19/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/13/15	1
Aluminum, Dissolved	U	0.035	0.10	mg/l		6010B	03/18/15	1
Barium, Dissolved	0.14	0.0017	0.0050	mg/l		6010B	03/18/15	1
Cadmium, Dissolved	U	0.00070	0.0050	mg/l		6010B	03/18/15	1
Calcium, Dissolved	190	0.046	1.0	mg/l		6010B	03/18/15	1
Chromium, Dissolved	0.0015	0.0014	0.010	mg/l	J	6010B	03/18/15	1
Cobalt, Dissolved	U	0.0023	0.010	mg/l		6010B	03/18/15	1
Copper, Dissolved	0.032	0.0053	0.020	mg/l		6010B	03/18/15	1
Iron, Dissolved	U	0.014	0.10	mg/l		6010B	03/18/15	1
Magnesium, Dissolved	23.	0.011	1.0	mg/l		6010B	03/18/15	1
Manganese, Dissolved	0.0046	0.0012	0.010	mg/l	J	6010B	03/18/15	1
Nickel, Dissolved	U	0.0049	0.020	mg/l		6010B	03/18/15	1
Potassium, Dissolved	3.5	0.10	1.0	mg/l		6010B	03/18/15	1
Selenium, Dissolved	0.012	0.0074	0.020	mg/l	J	6010B	03/18/15	1
Silver, Dissolved	U	0.0028	0.010	mg/l		6010B	03/18/15	1
Sodium, Dissolved	140	0.098	1.0	mg/l		6010B	03/18/15	1
Zinc, Dissolved	0.049	0.0059	0.050	mg/l	J	6010B	03/18/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/20/15	1
Benzene	0.0014	0.00033	0.0010	mg/l		8260B	03/20/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/20/15	1

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Reported: 04/13/15 12:03 Revised: 04/14/15 16:42
L753137-02 (PH) - 7.2 at 21.0c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-02

Sample ID : SOUTH WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 17:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/20/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/20/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/20/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/20/15	1
Chloroform	0.00039	0.00032	0.0050	mg/l	J	8260B	03/20/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/20/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/20/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/20/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/20/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/20/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/20/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/20/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/20/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/20/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : SOUTH WELL

Collected By : JA/JO
Collection Date : 03/09/15 17:25

ESC Sample # : L753137-02

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	03/20/15	1
Dibromofluoromethane	102.			% Rec.		8260B	03/20/15	1
4-Bromofluorobenzene	99.6			% Rec.		8260B	03/20/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Acetophenone	U	0.0025	0.010	mg/l	J4	8270 C	03/17/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/17/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/17/15	1
Benzo(a)anthracene	U	0.0000029	0.0010	mg/l		8270 C	03/17/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/17/15	1
Benzo(b)fluoranthene	U	0.0000021	0.0010	mg/l		8270 C	03/17/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/17/15	1
Benzo(g,h,i)perylene	U	0.0000023	0.0010	mg/l		8270 C	03/17/15	1
Benzo(a)pyrene	U	0.0000038	0.00020	mg/l		8270 C	03/20/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/17/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/17/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/17/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/20/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/17/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/17/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/17/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/17/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1

U = ND (Not Detected)

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-02

Sample ID : SOUTH WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 17:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/17/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Bis(2-ethylhexyl)phthalate	0.00078	0.00071	0.0030	mg/l	J	8270 C	03/17/15	1
Di-n-butyl phthalate	0.00068	0.00027	0.0030	mg/l	J	8270 C	03/17/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/17/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/17/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/17/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/17/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/17/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/17/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/17/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/17/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Surrogate Recovery								
2-Fluorophenol	1.13			% Rec.	J2	8270 C	03/17/15	1
Phenol-d5	6.96			% Rec.		8270 C	03/17/15	1
Nitrobenzene-d5	6.52			% Rec.	J2	8270 C	03/17/15	1
2-Fluorobiphenyl	43.5			% Rec.		8270 C	03/17/15	1
2,4,6-Tribromophenol	52.7			% Rec.		8270 C	03/17/15	1
p-Terphenyl-d14	51.1			% Rec.		8270 C	03/17/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : DUP-4

Collected By : JA/JO
Collection Date : 03/09/15 17:25

ESC Sample # : L753137-03

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	340	0.52	10.	mg/l		9056	03/16/15	10
Fluoride	0.82	0.0099	0.10	mg/l		9056	03/17/15	1
Sulfate	98.	0.077	5.0	mg/l		9056	03/17/15	1
Alkalinity	170	2.6	20.	mg/l		2320 B-	03/17/15	1
pH	7.2	-33.		su	JT8	9040C	03/13/15	1
Nitrate-Nitrite	650	2.0	10.	mg/l		353.2	03/21/15	100
Specific Conductance	1700	-33.		umhos/cm	J	9050A	03/16/15	1
Dissolved Solids	1100	2.8	10.	mg/l		2540 C-	03/16/15	1
Arsenic, Dissolved	0.0042	0.00025	0.0020	mg/l		6020	03/19/15	1
Boron, Dissolved	0.20	0.0015	0.020	mg/l		6020	03/19/15	1
Lead, Dissolved	0.0026	0.00024	0.0020	mg/l		6020	03/19/15	1
Molybdenum, Dissolved	0.0021	0.00014	0.0050	mg/l	J	6020	03/19/15	1
Uranium, Dissolved	0.0021	0.00033	0.010	mg/l	J	6020	03/19/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/13/15	1
Aluminum, Dissolved	0.037	0.035	0.10	mg/l	J	6010B	03/18/15	1
Barium, Dissolved	0.14	0.0017	0.0050	mg/l		6010B	03/18/15	1
Cadmium, Dissolved	U	0.00070	0.0050	mg/l		6010B	03/18/15	1
Calcium, Dissolved	180	0.046	1.0	mg/l		6010B	03/18/15	1
Chromium, Dissolved	U	0.0014	0.010	mg/l		6010B	03/18/15	1
Cobalt, Dissolved	U	0.0023	0.010	mg/l		6010B	03/18/15	1
Copper, Dissolved	0.019	0.0053	0.020	mg/l	J	6010B	03/18/15	1
Iron, Dissolved	U	0.014	0.10	mg/l		6010B	03/18/15	1
Magnesium, Dissolved	22.	0.011	1.0	mg/l		6010B	03/18/15	1
Manganese, Dissolved	0.0030	0.0012	0.010	mg/l	J	6010B	03/18/15	1
Nickel, Dissolved	U	0.0049	0.020	mg/l		6010B	03/18/15	1
Potassium, Dissolved	3.3	0.10	1.0	mg/l		6010B	03/18/15	1
Selenium, Dissolved	0.015	0.0074	0.020	mg/l	J	6010B	03/18/15	1
Silver, Dissolved	U	0.0028	0.010	mg/l		6010B	03/18/15	1
Sodium, Dissolved	130	0.098	1.0	mg/l		6010B	03/18/15	1
Zinc, Dissolved	0.025	0.0059	0.050	mg/l	J	6010B	03/18/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/20/15	1
Benzene	0.0016	0.00033	0.0010	mg/l		8260B	03/20/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/20/15	1

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L753137-03 (PH) - 7.2 at 20.6



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-03

Sample ID : DUP-4

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 17:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/20/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/20/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/20/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/20/15	1
Chloroform	0.00037	0.00032	0.0050	mg/l	J	8260B	03/20/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/20/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/20/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/20/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/20/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/20/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/20/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/20/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/20/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/20/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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Reported: 04/13/15 12:03 Revised: 04/14/15 16:42
L753137-03 (PH) - 7.2 at 20.6



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : DUP-4

Collected By : JA/JO
Collection Date : 03/09/15 17:25

ESC Sample # : L753137-03

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	03/20/15	1
Dibromofluoromethane	107.			% Rec.		8260B	03/20/15	1
4-Bromofluorobenzene	101.			% Rec.		8260B	03/20/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Acetophenone	U	0.0025	0.010	mg/l	J4	8270 C	03/17/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/17/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/17/15	1
Benzo(a)anthracene	U	0.0000029	0.0010	mg/l		8270 C	03/17/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/17/15	1
Benzo(b)fluoranthene	U	0.0000021	0.0010	mg/l		8270 C	03/17/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/17/15	1
Benzo(g,h,i)perylene	U	0.0000023	0.0010	mg/l		8270 C	03/17/15	1
Benzo(a)pyrene	U	0.0000038	0.00020	mg/l		8270 C	03/20/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/17/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/17/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/17/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/20/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/17/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/17/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/17/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/17/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD = TRRP SDL

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-03

Sample ID : DUP-4

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 17:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/17/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/17/15	1
Di-n-butyl phthalate	U	0.00027	0.0030	mg/l		8270 C	03/17/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/17/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/17/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/17/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/17/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/17/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/17/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/17/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/17/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Surrogate Recovery								
2-Fluorophenol	2.95			% Rec.	J2	8270 C	03/17/15	1
Phenol-d5	7.54			% Rec.		8270 C	03/17/15	1
Nitrobenzene-d5	9.03			% Rec.	J2	8270 C	03/17/15	1
2-Fluorobiphenyl	25.1			% Rec.	J2	8270 C	03/17/15	1
2,4,6-Tribromophenol	42.5			% Rec.		8270 C	03/17/15	1
p-Terphenyl-d14	56.3			% Rec.		8270 C	03/17/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : EAST WELL

Collected By : JA/JO
Collection Date : 03/09/15 15:25

ESC Sample # : L753137-04

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chloride	120	0.52	10.	mg/l		9056	03/16/15	10
Fluoride	1.1	0.0099	0.10	mg/l		9056	03/17/15	1
Sulfate	81.	0.077	5.0	mg/l		9056	03/17/15	1
Alkalinity	160	2.6	20.	mg/l		2320 B-	03/17/15	1
pH	7.3	-33.		su	JT8	9040C	03/13/15	1
Nitrate-Nitrite	2.6	0.020	0.10	mg/l		353.2	03/21/15	1
Specific Conductance	980	-33.		umhos/cm	J	9050A	03/16/15	1
Dissolved Solids	570	2.8	10.	mg/l		2540 C-	03/16/15	1
Arsenic, Dissolved	0.0046	0.00025	0.0020	mg/l		6020	03/19/15	1
Boron, Dissolved	0.15	0.0015	0.020	mg/l		6020	03/19/15	1
Lead, Dissolved	0.0012	0.00024	0.0020	mg/l	J	6020	03/19/15	1
Molybdenum, Dissolved	0.0023	0.00014	0.0050	mg/l	J	6020	03/19/15	1
Uranium, Dissolved	0.0018	0.00033	0.010	mg/l	J	6020	03/19/15	1
Mercury	U	0.000049	0.00020	mg/l		7470A	03/13/15	1
Aluminum, Dissolved	U	0.035	0.10	mg/l		6010B	03/18/15	1
Barium, Dissolved	0.10	0.0017	0.0050	mg/l		6010B	03/18/15	1
Cadmium, Dissolved	U	0.00070	0.0050	mg/l		6010B	03/18/15	1
Calcium, Dissolved	120	0.046	1.0	mg/l		6010B	03/18/15	1
Chromium, Dissolved	0.012	0.0014	0.010	mg/l		6010B	03/18/15	1
Cobalt, Dissolved	U	0.0023	0.010	mg/l		6010B	03/18/15	1
Copper, Dissolved	0.068	0.0053	0.020	mg/l		6010B	03/18/15	1
Iron, Dissolved	U	0.014	0.10	mg/l		6010B	03/18/15	1
Magnesium, Dissolved	15.	0.011	1.0	mg/l		6010B	03/18/15	1
Manganese, Dissolved	0.0021	0.0012	0.010	mg/l	J	6010B	03/18/15	1
Nickel, Dissolved	U	0.0049	0.020	mg/l		6010B	03/18/15	1
Potassium, Dissolved	2.1	0.10	1.0	mg/l		6010B	03/18/15	1
Selenium, Dissolved	0.010	0.0074	0.020	mg/l	J	6010B	03/18/15	1
Silver, Dissolved	U	0.0028	0.010	mg/l		6010B	03/18/15	1
Sodium, Dissolved	51.	0.098	1.0	mg/l		6010B	03/18/15	1
Zinc, Dissolved	0.086	0.0059	0.050	mg/l		6010B	03/18/15	1
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/20/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/20/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-04

Sample ID : EAST WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 15:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/20/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/20/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/20/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/20/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/20/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/20/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/20/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/20/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/20/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/20/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/20/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/20/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/20/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/20/15	1

U = ND (Not Detected)

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L753137-04 (PH) - 7.3 at 20.9c



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-04

Sample ID : EAST WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 15:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	03/20/15	1
Dibromofluoromethane	105.			% Rec.		8260B	03/20/15	1
4-Bromofluorobenzene	96.0			% Rec.		8260B	03/20/15	1
Base/Neutral Extractables								
Acenaphthene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Acenaphthylene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Acetophenone	U	0.0025	0.010	mg/l	J4	8270 C	03/17/15	1
Anthracene	U	0.00029	0.0010	mg/l		8270 C	03/17/15	1
Atrazine	U	0.0015	0.010	mg/l		8270 C	03/17/15	1
Benzo(a)anthracene	U	0.0000029	0.0010	mg/l		8270 C	03/17/15	1
Benzaldehyde	U	0.0014	0.010	mg/l		8270 C	03/17/15	1
Benzo(b)fluoranthene	U	0.0000021	0.0010	mg/l		8270 C	03/17/15	1
Benzo(k)fluoranthene	U	0.00036	0.0010	mg/l		8270 C	03/17/15	1
Benzo(g,h,i)perylene	U	0.0000023	0.0010	mg/l		8270 C	03/17/15	1
Benzo(a)pyrene	U	0.0000038	0.00020	mg/l		8270 C	03/20/15	1
Biphenyl	U	0.00021	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chlorethoxy)methane	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroethyl)ether	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
Bis(2-chloroisopropyl)ether	U	0.00044	0.010	mg/l		8270 C	03/17/15	1
4-Bromophenyl-phenylether	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
2-Chloronaphthalene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
4-Chlorophenyl-phenylether	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Caprolactam	U	0.00058	0.010	mg/l		8270 C	03/17/15	1
Carbazole	U	0.00016	0.010	mg/l		8270 C	03/17/15	1
Chrysene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Dibenz(a,h)anthracene	U	0.000064	0.00020	mg/l		8270 C	03/20/15	1
Dibenzofuran	U	0.00034	0.010	mg/l		8270 C	03/17/15	1
3,3-Dichlorobenzidine	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrotoluene	U	0.0016	0.010	mg/l		8270 C	03/17/15	1
2,6-Dinitrotoluene	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
Fluoranthene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Fluorene	U	0.00032	0.0010	mg/l		8270 C	03/17/15	1
Hexachlorobenzene	U	0.00034	0.0010	mg/l		8270 C	03/17/15	1
Hexachloro-1,3-butadiene	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
Hexachlorocyclopentadiene	U	0.0023	0.010	mg/l		8270 C	03/17/15	1
Hexachloroethane	U	0.00036	0.010	mg/l		8270 C	03/17/15	1
Indeno(1,2,3-cd)pyrene	U	0.00028	0.0010	mg/l		8270 C	03/17/15	1
Isophorone	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
1-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
2-Methylnaphthalene	U	0.00031	0.0010	mg/l		8270 C	03/17/15	1
Naphthalene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1

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Reported: 04/13/15 12:03 Revised: 04/14/15 16:42
L753137-04 (PH) - 7.3 at 20.9c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-04

Sample ID : EAST WELL

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 15:25

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrobenzene	U	0.00037	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodiphenylamine	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
n-Nitrosodi-n-propylamine	U	0.00040	0.010	mg/l		8270 C	03/17/15	1
Phenanthrene	U	0.00037	0.0010	mg/l		8270 C	03/17/15	1
Benzylbutyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Bis(2-ethylhexyl)phthalate	U	0.00071	0.0030	mg/l		8270 C	03/17/15	1
Di-n-butyl phthalate	0.0011	0.00027	0.0030	mg/l	J	8270 C	03/17/15	1
Diethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Dimethyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Di-n-octyl phthalate	U	0.00028	0.0030	mg/l		8270 C	03/17/15	1
Pyrene	U	0.00033	0.0010	mg/l		8270 C	03/17/15	1
Acid Extractables								
4-Chloro-3-methylphenol	U	0.00026	0.010	mg/l		8270 C	03/17/15	1
2-Chlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dichlorophenol	U	0.00028	0.010	mg/l		8270 C	03/17/15	1
2,4-Dimethylphenol	U	0.00062	0.010	mg/l		8270 C	03/17/15	1
4,6-Dinitro-2-methylphenol	U	0.0026	0.010	mg/l		8270 C	03/17/15	1
2,4-Dinitrophenol	U	0.0032	0.010	mg/l		8270 C	03/17/15	1
2-Nitrophenol	U	0.00032	0.010	mg/l		8270 C	03/17/15	1
2-Nitroaniline	U	0.0019	0.010	mg/l		8270 C	03/17/15	1
2-Methylphenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
3&4-Methyl Phenol	U	0.00027	0.010	mg/l		8270 C	03/17/15	1
3-Nitroaniline	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
4-Chloroaniline	U	0.00038	0.010	mg/l		8270 C	03/17/15	1
4-Nitroaniline	U	0.00035	0.010	mg/l		8270 C	03/17/15	1
4-Nitrophenol	U	0.0020	0.010	mg/l		8270 C	03/17/15	1
Pentachlorophenol	U	0.00031	0.010	mg/l		8270 C	03/17/15	1
Phenol	U	0.00033	0.010	mg/l		8270 C	03/17/15	1
2,4,5-Trichlorophenol	U	0.00024	0.010	mg/l		8270 C	03/17/15	1
2,4,6-Trichlorophenol	U	0.00030	0.010	mg/l		8270 C	03/17/15	1
Surrogate Recovery								
2-Fluorophenol	2.70			% Rec.	J2	8270 C	03/17/15	1
Phenol-d5	6.70			% Rec.		8270 C	03/17/15	1
Nitrobenzene-d5	7.10			% Rec.	J2	8270 C	03/17/15	1
2-Fluorobiphenyl	24.0			% Rec.	J2	8270 C	03/17/15	1
2,4,6-Tribromophenol	45.1			% Rec.		8270 C	03/17/15	1
p-Terphenyl-d14	62.2			% Rec.		8270 C	03/17/15	1

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L753137-04 (PH) - 7.3 at 20.9c



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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

ESC Sample # : L753137-05

Sample ID : TRIP BLANK-3

Site ID :

Collected By : JA/JO
Collection Date : 03/09/15 00:00

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Volatile Organics								
Acetone	U	0.010	1.0	mg/l		8260B	03/20/15	1
Benzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Bromodichloromethane	U	0.00038	0.0013	mg/l		8260B	03/20/15	1
Bromoform	U	0.00047	0.0010	mg/l		8260B	03/20/15	1
Bromomethane	U	0.00087	0.0050	mg/l		8260B	03/20/15	1
n-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
sec-Butylbenzene	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
tert-Butylbenzene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
Carbon disulfide	U	0.00028	0.0010	mg/l		8260B	03/20/15	1
Carbon tetrachloride	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Chlorobenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Chlorodibromomethane	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
Chloroethane	U	0.00045	0.0050	mg/l		8260B	03/20/15	1
Chloroform	U	0.00032	0.0050	mg/l		8260B	03/20/15	1
Chloromethane	U	0.00028	0.0025	mg/l		8260B	03/20/15	1
1,2-Dibromoethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethane	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloroethane	U	0.00036	0.0010	mg/l		8260B	03/20/15	1
1,1-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
cis-1,2-Dichloroethene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
trans-1,2-Dichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1
1,2-Dichloropropane	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
cis-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
trans-1,3-Dichloropropene	U	0.00042	0.0010	mg/l		8260B	03/20/15	1
Ethylbenzene	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Hexachloro-1,3-butadiene	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
2-Hexanone	U	0.0038	0.010	mg/l		8260B	03/20/15	1
Isopropylbenzene	U	0.00033	0.0010	mg/l		8260B	03/20/15	1
p-Isopropyltoluene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
2-Butanone (MEK)	U	0.0039	0.010	mg/l		8260B	03/20/15	1
Methylene Chloride	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
4-Methyl-2-pentanone (MIBK)	U	0.0021	0.010	mg/l		8260B	03/20/15	1
Methyl tert-butyl ether	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Naphthalene	U	0.0010	0.0050	mg/l		8260B	03/20/15	1
n-Propylbenzene	U	0.00035	0.0010	mg/l		8260B	03/20/15	1
Styrene	U	0.00031	0.0010	mg/l		8260B	03/20/15	1
1,1,2,2-Tetrachloroethane	U	0.00013	0.0010	mg/l		8260B	03/20/15	1
Tetrachloroethene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
Toluene	U	0.00078	0.0050	mg/l		8260B	03/20/15	1
1,1,1-Trichloroethane	U	0.00032	0.0010	mg/l		8260B	03/20/15	1
1,1,2-Trichloroethane	U	0.00038	0.0010	mg/l		8260B	03/20/15	1
Trichloroethene	U	0.00040	0.0010	mg/l		8260B	03/20/15	1

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REPORT OF ANALYSIS

John Allen
TRC Solutions
505 E. Huntland Drive, Suite 250
Austin, TX 78752

April 14, 2015

Date Received : March 12, 2015
Description : Lovington Lea Refinery

Sample ID : TRIP BLANK-3

Collected By : JA/JO
Collection Date : 03/09/15 00:00

ESC Sample # : L753137-05

Site ID :

Project # : 227000

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,2,4-Trimethylbenzene	U	0.00037	0.0010	mg/l		8260B	03/20/15	1
1,3,5-Trimethylbenzene	U	0.00039	0.0010	mg/l		8260B	03/20/15	1
Vinyl chloride	U	0.00026	0.0010	mg/l		8260B	03/20/15	1
Xylenes, Total	U	0.0011	0.0030	mg/l		8260B	03/20/15	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	03/20/15	1
Dibromofluoromethane	103.			% Rec.		8260B	03/20/15	1
4-Bromofluorobenzene	98.4			% Rec.		8260B	03/20/15	1

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L753137-01	WG776313	SAMP	Copper,Dissolved	R3025288	J
	WG776313	SAMP	Selenium,Dissolved	R3025288	J
	WG776313	SAMP	Zinc,Dissolved	R3025288	J
	WG776045	SAMP	Fluoride	R3025181	J
	WG775568	SAMP	pH	R3024657	JT8
	WG775693	SAMP	Specific Conductance	R3025094	J
	WG775448	SAMP	Acetophenone	R3025922	J4
	WG775448	SAMP	Di-n-butyl phthalate	R3025922	J
	WG775448	SAMP	2-Fluorophenol	R3025922	J2
	WG775448	SAMP	Nitrobenzene-d5	R3025922	J2
	WG776640	SAMP	Lead,Dissolved	R3025687	J
	WG776640	SAMP	Molybdenum,Dissolved	R3025687	J
	WG776640	SAMP	Uranium,Dissolved	R3025687	J
	WG776313	SAMP	Chromium,Dissolved	R3025288	J
	WG776313	SAMP	Manganese,Dissolved	R3025288	J
	WG776313	SAMP	Selenium,Dissolved	R3025288	J
	WG776313	SAMP	Zinc,Dissolved	R3025288	J
L753137-02	WG775568	SAMP	pH	R3024657	JT8
	WG775693	SAMP	Specific Conductance	R3025094	J
	WG775448	SAMP	Acetophenone	R3025922	J4
	WG775448	SAMP	Bis(2-ethylhexyl)phthalate	R3025922	J
	WG775448	SAMP	Di-n-butyl phthalate	R3025922	J
	WG775448	SAMP	2-Fluorophenol	R3025922	J2
	WG775448	SAMP	Nitrobenzene-d5	R3025922	J2
	WG775488	SAMP	Chloroform	R3025975	J
	WG776640	SAMP	Molybdenum,Dissolved	R3025687	J
	WG776640	SAMP	Uranium,Dissolved	R3025687	J
	WG776313	SAMP	Aluminum,Dissolved	R3025288	J
	WG776313	SAMP	Copper,Dissolved	R3025288	J
	WG776313	SAMP	Manganese,Dissolved	R3025288	J
	WG776313	SAMP	Selenium,Dissolved	R3025288	J
	WG776313	SAMP	Zinc,Dissolved	R3025288	J
	WG775568	SAMP	pH	R3024657	JT8
	WG775693	SAMP	Specific Conductance	R3025094	J
L753137-03	WG775448	SAMP	Acetophenone	R3025922	J4
	WG775448	SAMP	2-Fluorophenol	R3025922	J2
	WG775448	SAMP	Nitrobenzene-d5	R3025922	J2
	WG775448	SAMP	2-Fluorobiphenyl	R3025922	J2
	WG775488	SAMP	Chloroform	R3025975	J
	WG776640	SAMP	Molybdenum,Dissolved	R3025687	J
	WG776640	SAMP	Uranium,Dissolved	R3025687	J
	WG776313	SAMP	Manganese,Dissolved	R3025288	J
	WG776313	SAMP	Selenium,Dissolved	R3025288	J
	WG776313	SAMP	Zinc,Dissolved	R3025288	J
	WG775568	SAMP	pH	R3024657	JT8
	WG775693	SAMP	Specific Conductance	R3025094	J
	WG775448	SAMP	Acetophenone	R3025922	J4
	WG775448	SAMP	Di-n-butyl phthalate	R3025922	J
	WG775448	SAMP	2-Fluorophenol	R3025922	J2
	WG775448	SAMP	Nitrobenzene-d5	R3025922	J2
	WG775448	SAMP	2-Fluorobiphenyl	R3025922	J2
L753137-04	WG776640	SAMP	Lead,Dissolved	R3025687	J
	WG776640	SAMP	Molybdenum,Dissolved	R3025687	J
	WG776640	SAMP	Uranium,Dissolved	R3025687	J
	WG776313	SAMP	Selenium,Dissolved	R3025288	J
	WG776313	SAMP	Manganese,Dissolved	R3025288	J
	WG776313	SAMP	Uranium,Dissolved	R3025288	J
	WG775568	SAMP	pH	R3024657	JT8
	WG775693	SAMP	Specific Conductance	R3025094	J
	WG775448	SAMP	Acetophenone	R3025922	J4
	WG775448	SAMP	Di-n-butyl phthalate	R3025922	J
	WG775448	SAMP	2-Fluorophenol	R3025922	J2
	WG775448	SAMP	Nitrobenzene-d5	R3025922	J2
	WG775448	SAMP	2-Fluorobiphenyl	R3025922	J2
	WG776640	SAMP	Lead,Dissolved	R3025687	J
	WG776640	SAMP	Molybdenum,Dissolved	R3025687	J
	WG776640	SAMP	Uranium,Dissolved	R3025687	J