



June 13, 2025

New Mexico Oil Conservation Division

Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Subject: 2024 Annual Report

Former Giant Bloomfield Refinery
NMOCD Discharge Permit Number: GW-40
Western Refining Southwest, LLC
San Juan County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Western Refining Southwest LLC (Western, an affiliate of Marathon Petroleum Company LP), has prepared this report detailing activities completed in 2024 at the former Giant Bloomfield Refinery (Site), Discharge Permit number GW-40, located in San Juan County, New Mexico.

SITE BACKGROUND

The Site is a former petroleum refinery currently owned by Western, located at the northeast corner of U.S. Highway 64 and County Road 3500, approximately 5 miles west of Bloomfield, New Mexico. The Site occupies the southwest quarter of the southwest quarter of Section 22 and the northwest quarter of the northwest quarter of Section 27, Township 29 North, Range 12 West, in San Juan County, New Mexico (**Figure 1**).

Operated by Giant Industries (Giant) from 1974 to 1982, the refinery produced gasoline, diesel, kerosene, and other refined petroleum products before its permanent closure in 1982. In April 1985, a dike breach at a lagoon on the adjacent Lee Acres Landfill property released retained liquid waste into an arroyo located west of the Site. The arroyo flows south toward the Lee Acres Subdivision, situated directly south of the Site. In 1986, the New Mexico Oil Conservation Division (NMOCD) and the New Mexico Environment Department (NMED) detected groundwater impacts in domestic wells within the subdivision. In response, the NMOCD required Giant to investigate petroleum hydrocarbon impacts to groundwater downgradient of the former refinery, while NMED initiated a separate investigation into potential impacts from the landfill.

These investigations identified two distinct groundwater plumes; one plume originating from the former refinery and the other from the landfill, that subsequently commingled as they migrated downgradient toward the subdivision. The refinery-related plume contained phase-separated hydrocarbons (PSH) and dissolved-phase petroleum hydrocarbons. The landfill-related plume was characterized by elevated concentrations of total dissolved solids (TDS), chloride, sulfate, metals, and volatile organic compounds (VOCs).

Comprehensive details on the Site history, past remediation efforts, and historical groundwater monitoring are provided in WSP, Inc.'s *Stage 2 Abatement Plan*, dated May 18, 2021. The *Stage 2*

Abatement Plan was approved by the NMOCD on November 13, 2023. As part of the approved plan, a series of corrective actions were recommended including delineation of residual vadose zone impacts near wells exhibiting PSH, manual product recovery, strategic well abandonment and replacement, and continued groundwater monitoring for key contaminants of concern (COCs). Implementation of these recommendations began in 2024. Pursuant to Discharge Permit GW-40 (issued January 6, 2021), this report presents interim Site activities completed during 2024.

2024 DRILLING AND MONITORING WELL INSTALLATION

In response to the continued presence of PSH in several Site monitoring wells, Ensolum conducted a targeted drilling program in 2024 to evaluate potential vadose-zone sources contributing to persistent impacts. Specifically, soil in the unsaturated zone near wells GBR-7, GBR-22, and GBR-41 was assessed to identify residual free-phase total petroleum hydrocarbons (TPH) potentially sustaining PSH occurrence in these wells. To support the investigation, nine additional boreholes were proposed to characterize subsurface conditions, delineate remaining contamination, and inform potential remedial actions. Borehole locations were selected based on historical data, known source areas, and proximity to wells exhibiting PSH.

As part of the Site investigation, local geologic and hydrogeologic conditions, as well as potential sensitive receptors, were evaluated in accordance with Title 19, Chapter 15, Part 29, Sections 11 and 12 (19.15.29.11 and 19.15.29.12) of the New Mexico Administrative Code (NMAC).

GEOLOGY AND HYDROGEOLOGY

The Site is underlain by the Nacimiento Formation, a Paleocene-age unit composed of nonmarine interbedded black carbonaceous mudstones and white coarse-grained sandstones. The formation ranges in thickness from approximately 418 feet to 2,232 feet in the San Juan Basin and exhibits considerable lateral heterogeneity (Stone et al., 1983). Hydrogeologic properties vary widely depending on lithology and degree of induration, with groundwater yield typically limited to the more laterally persistent sandstone beds. Where transmissivity is adequate, the formation may support small-scale domestic or livestock wells. Regionally, the Nacimiento Formation overlies the Ojo Alamo Sandstone.

POTENTIAL SENSITIVE RECEPTORS

Potential nearby receptors were assessed through desktop reviews of United States Geological Survey (USGS) topographic maps, Federal Emergency Management Administration (FEMA) Geographic Information System (GIS) maps, New Mexico Office of the State Engineer (NMOSE) database, aerial photographs, and Site-specific observations.

The nearest significant watercourse is an ephemeral stream located approximately 50 feet west of the Site's western perimeter. A mapped wetland is located approximately 225 feet east of the Site. Additionally, the Site lies within a designated 100-year floodplain. A total of 44 NMOSE-permitted wells are located on or near the Site, all with recorded depths to groundwater less than 50 feet below ground surface (bgs).

The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake. No wellhead protection areas, springs, or domestic/stock wells are located within a ½-mile from the Site. The Site is not overlying a subsurface mine or located within an area underlain by unstable geology (area designated as low potential karst by the Bureau of Land Management). Schools, hospitals, institutions, churches, and/or other occupied permanent residence or structures are not located within 300 feet of the Site.

SOIL CLOSURE CRITERIA

Based on the information presented above and in accordance with the *Table I, Closure Criteria for Soils Impacted by a Release* (19.15.29.12 NMAC), the following Closure Criteria for COCs should be applied to the Site:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 mg/kg
- TPH as a combination of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO):
100 mg/kg
- Chloride: 600 mg/kg

DELINEATION OF RESIDUAL SOIL IMPACTS

Drilling activities began in January 2024 using a hollow-stem auger drill rig operated by Enviro-Drill, Inc. (Enviro-Drill). Two boreholes (GBR-41R and GBR-54) were successfully advanced to depths ranging from 46 feet to 47 feet bgs; however, attempts to complete boreholes west of these locations were unsuccessful due to shallow refusal caused by a dense cobble lag deposit associated with a former paleochannel.

To address these challenging subsurface conditions, Ensolum returned to the Site in March 2024 with an Overburden Drilling EXcentric (ODEX) method drilling rig, also operated by Enviro-Drill. The ODEX method is specifically designed to advance casing through unconsolidated or unstable overburden, such as coarse gravel or weathered rock, where conventional auger drilling may fail to penetrate or maintain borehole integrity. Using this method, the remaining seven boreholes (GBR-53, GBR-55, GBR-56, GBR-57, GBR-58, GBR-59, and GBR-60) were advanced to target depths between 47 feet and 60 feet bgs. Borehole locations and the Site monitoring well network are depicted on **Figure 2** and borehole logs are included in **Appendix A**. Well construction information for all Site monitoring wells is presented in **Table 1**.

During drilling, an Ensolum geologist logged lithology and evaluated soil for petroleum hydrocarbon staining and odors. Field screening for organic vapors was conducted using a calibrated photoionization detector (PID). Soil samples were collected from intervals exhibiting the highest field-screening responses and from the terminal depth of each borehole. Samples were placed directly into laboratory-provided jars, immediately chilled on ice, and submitted to Eurofins Environmental Testing (Eurofins) under strict chain-of-custody protocols. Analyses included BTEX following EPA Method 8021B and TPH following EPA Method 8015M/D. Laboratory analytical soil results are included in **Appendix B**.

SOIL ANALYTICAL RESULTS SUMMARY

A total of 23 soil samples were collected from boreholes GBR-41R and GBR-53 through GBR-60 during the 2024 drilling activities. Soil analytical results from the 2024 drilling program are presented in **Table 2** and depicted on **Figure 3**. Elevated TPH concentrations were observed in several samples, primarily within the DRO fraction. The highest total TPH concentrations were detected in GBR-41R at 31 feet bgs (1,300 mg/kg), GBR-55 at 45 feet bgs (1,430 mg/kg), GBR-59 at 30 feet bgs (1,100 mg/kg), and GBR-60 at 35 feet bgs (1,309 mg/kg). Depth to groundwater at these locations ranged from approximately 36 feet to 40 feet bgs, placing the impacted intervals within the upper vadose zone and near the capillary fringe. These elevated concentrations

indicated persistent residual hydrocarbon mass in unsaturated soils, which may be sustaining PSH occurrence in adjacent monitoring wells and at GBR-55.

BTEX constituents were generally not detected or were present at low concentrations below the applicable NMOCD Table I Closure Criteria; however, measurable concentrations of ethylbenzene and xylenes were detected in GBR-41R between 29 feet and 31 feet bgs, with a total BTEX concentration of 0.99 mg/kg. Xylenes were also detected in GBR-55 between 45 feet and 49 feet bgs, ranging from 0.10 mg/kg to 0.14 mg/kg. All detected BTEX concentrations were below applicable NMOCD Closure Criteria.

MONITORING WELL INSTALLATION

All boreholes were completed as permanent groundwater monitoring wells using 2-inch diameter Schedule 40 PVC casing with 0.010-inch factory-slotted screen. A 10/20 silica sand filter pack was installed around the screened interval, followed by a bentonite seal and cement grout to surface. Each well was completed with a monument stick-up protective casing, including a locking cap and concrete pad, to prevent damage and ensure secure access for future sampling. Following installation, the wells were developed using a combination of surging and purging until field parameters stabilized and sediment-free groundwater was observed.

Each monitoring well was constructed with a 15-foot screen interval strategically positioned to span the capillary fringe and the saturated zone, with approximately 10 feet of screen submerged below the water table and the remaining 5 feet situated in the unsaturated zone or capillary fringe. This configuration was designed to enhance monitoring of PSH, optimizing detection of potential residual hydrocarbon impacts.

All monitoring wells were permitted with the NMOSE in accordance with state regulations governing groundwater monitoring installations. Each well was registered using Form WR-07 (Application for Permit to Construct and Use a Monitoring Well) and assigned a unique NMOSE file number to confirm regulatory compliance and facilitate future reporting.

PLUG AND ABANDONMENT OF CLUSTERED, DRY, OR DAMAGED WELLS

In 2024, several well modifications were completed in accordance with the approved *Stage 2 Abatement Plan*. Plugging and abandonment (P&A) activities were conducted for dry or damaged wells, including GBR-21S, GBR-23, GBR-33, and GBR-40. These wells were non-productive or historically yielded results below applicable New Mexico Water Quality Control Commission (NMWQCC) standards. Additional wells considered redundant and no longer necessary for ongoing monitoring (GBR-9, GBR-10, GBR-15, GBR-24S, and GBR-26) were also abandoned due to their proximity to other functional wells or lack of recovery. Furthermore, monitoring well GBR-41, which had historically exhibited PSH, was decommissioned and replaced with GBR-41R. The original construction included 10 feet of screen within a sand unit and a 3-foot blank section extending into underlying sandstone. The replacement well was constructed with a 15-foot screen set across the water table, without any blank casing below the screen, to enhance monitoring of residual PSH at this location.

2024 GROUNDWATER MONITORING ACTIVITIES

Quarterly groundwater monitoring was conducted in 2024 in accordance with the *Stage 2 Abatement Plan* approved by the NMOCD in 2023. The purpose of the monitoring was to evaluate the extent of remaining impacts and assess the need for additional corrective actions. Groundwater samples were collected from all viable monitoring wells during March, May/June, September, and December 2024 events. Due to limited occurrences of PSH, groundwater was

not recovered, treated, or discharged into the onsite infiltration gallery during any of the 2024 sampling events.

GROUNDWATER FLOW DIRECTION

To evaluate groundwater flow direction across the Site, Ensolum conducted groundwater elevation gauging events in March, May/June, September, and December of 2024. Depth to water and depth to PSH measurements were collected using a decontaminated oil-water interface probe, which was rinsed with Alconox® detergent and distilled water prior to each use to verify data integrity. Depth to groundwater measurements were used to calculate groundwater elevations above mean sea level (AMSL), allowing the development of potentiometric surface maps for each event. The resulting groundwater elevation data are presented in **Table 3**, while **Figure 4** through **Figure 7** illustrates the inferred groundwater potentiometric surfaces and flow directions.

Based on these gauging events, the predominant direction of groundwater flow at the Site remains consistently to the south, aligning with historical observations and regional hydrogeologic gradients. The hydraulic gradient across the Site on average is 0.016 feet per foot.

2024 GROUNDWATER SAMPLING AND LABORATORY ANALYTICAL METHODS

Sampling was performed using low-flow purging and sampling techniques with a submersible pump to minimize turbidity and improve sample quality. Each well was purged until water quality parameters (temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential) stabilized following standard low-flow sampling protocols. Groundwater samples were collected directly into laboratory-provided containers, labeled, preserved, placed on ice, and submitted under formal chain-of-custody procedures to Eurofins or Green Analytical Laboratories for analysis. Benzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were analyzed following EPA Method 8260B; and dissolved metals, including manganese and lead, were analyzed following EPA Methods 200.7 and 200.8. These analytes were selected based on historical detections and COCs identified in the approved *Stage 2 Abatement Plan*. A summary of groundwater analytical results is presented in **Table 4** and depicted on **Figure 8** through **Figure 11**. Full groundwater laboratory reports are included in **Appendix C**.

GROUNDWATER SAMPLING RESULTS

Ensolum compared the 2024 groundwater analytical results to applicable NMWQCC standards for lead, benzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. Due to naturally elevated manganese concentrations at the Site, Site-specific background values established in the *Stage 2 Abatement Plan* (approved in 2023) were used for manganese in place of regulatory standards. For additional context, **Table 4** also presents background concentrations and remedial goals developed for the upgradient Lee Acres Landfill Superfund site. A summary of 2024 results is provided below.

March 2024

- Manganese concentrations exceeded the Site-specific background concentration of 5.28 mg/L at GRW-2, GRW-5, GBR-5, GBR-13, and SHS-13 with concentrations ranging from 5.5 milligrams per liter (mg/L) (SHS-13) to 7.2 mg/L (GBR-42). Manganese concentrations at all other monitoring wells were below the Site-specific background concentration.
- Lead was detected at concentrations of 0.00076 mg/L in well GBR-22 and 0.0031 mg/L in well GBR-25, both of which are below the NMWQCC standard of 0.015 mg/L. Lead was not detected above the laboratory reporting limit in the remaining monitoring wells.

- Benzene exceeded the NMWQCC standard of 5 micrograms per liter ($\mu\text{g/L}$) in monitoring well GBR-11, with a concentration of 14 $\mu\text{g/L}$. Benzene was not detected above the laboratory reporting limit in any other monitoring wells.
- Naphthalene and 1-methylnaphthalene exceeded the combined NMWQCC standard of 30 $\mu\text{g/L}$ in monitoring well GBR-35, with a total naphthalene concentration of 311 $\mu\text{g/L}$. Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were not detected above the laboratory reporting limit in any other monitoring wells.
- Approximately 0.7 feet of PSH was observed in monitoring well MW-55. Due to the presence of PSH and the associated hydrocarbon impact, MW-55 was not sampled for groundwater analysis.
- Monitoring wells GBR-7, GBR-22, GBR-41R, and GBR-59 contained trace amounts to 0.05 feet of PSH; however, due to the limited volume of PSH, these wells were sampled and analyzed for dissolved-phase hydrocarbons.

May/June 2024

- Manganese concentrations exceeded the Site-specific background concentration at GRW-1, GRW-2, GRW-5, GBR-5, GBR-13, and SHS-13 with concentrations ranging from 5.5 mg/L (GBR-13 & SHS-13) to 12 mg/L (GRW-1). Manganese concentrations at all other monitoring wells were below the Site-specific background concentration or the laboratory reporting limit.
- Lead was not detected above the laboratory reporting limit, which was less than NMWQCC standard, in any of the monitoring wells.
- Benzene exceeded the NMWQCC standard in monitoring well GBR-11, with a concentration of 6.8 $\mu\text{g/L}$. Benzene was not detected above the NMWQCC Standards or the laboratory reporting limit in any other monitoring wells.
- Combined naphthalene exceeded the NMWQCC standard at wells GBR-22 and GBR-35, with concentrations of 50.7 $\mu\text{g/L}$ and 126 $\mu\text{g/L}$, respectively. In all other monitoring wells, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were either not detected above laboratory reporting limits or were detected at concentrations below the NMWQCC standard.
- Approximately 0.88 feet of PSH was observed in monitoring well MW-55. Due to the presence of PSH and the associated hydrocarbon impact, MW-55 was not sampled for groundwater analysis. Additionally, 0.01 feet of PSH was observed in monitoring well GBR-25; however, due to the minimal volume, this well was sampled and analyzed for dissolved-phase hydrocarbons.
- Monitoring well GBR-49 was obstructed by root intrusion within the screened interval, preventing the use of a pump or bailer. As a result, the well was not sampled.

September 2024

- Manganese concentrations exceeded the Site-specific background concentration at GRW-2, GBR-8, GBR-31, and GBR-54 with concentrations ranging between 5.9 mg/L and 8.7 mg/L. Manganese concentrations at all other monitoring wells were below the Site-specific background concentration or the laboratory reporting limit.
- Lead was detected at concentrations exceeding the NMWQCC standard in monitoring wells GBR-8, GBR-11, and GBR-54, with concentrations ranging from 0.016 mg/L to 0.071 mg/L. Lead was not detected above the NMWQCC standard or the laboratory reporting limit in all other monitoring wells.
- Benzene was detected at a concentration of 1.1 $\mu\text{g/L}$ in monitoring well GBR-11, which is below the NMWQCC standard. Benzene was not detected above the laboratory reporting limit in any other monitoring wells.
- Naphthalene, 1-methylnaphthalene, and 2-Methylnaphthalene were not detected above the laboratory reporting limit in any monitoring wells.

- PSH was observed in monitoring wells GBR-7, GBR-22, GBR-25, GBR-39, and GBR-55 with thickness ranging between 0.01 feet to 0.04 feet. Due to the presence of PSH and the associated hydrocarbon impact, these wells were not sampled for groundwater analysis.
- Several wells previously sampled were not sampled during this monitoring event due to challenging field conditions and uncertainty regarding potential hydrocarbon presence based on preliminary screening. To avoid the risk of cross-contamination and verify data integrity, the field team deferred sampling at these locations pending further evaluation. Follow-up inspection has since confirmed PSH was not necessarily present, except at GBR-55. These wells will be included for analysis in the next monitoring round.
- In addition, several wells were reported as obstructed or damaged, preventing the deployment of a pump for sampling. These included GBR-5, GBR-21D, GBR-39, GBR-41R, GBR-59, and SHS-13. These wells will be re-evaluated during the next monitoring event.
- Monitoring well GRW-3 was reported as dry during this monitoring event. GRW-3 will be rechecked during the next monitoring event to confirm water presence.
- Well SHS-9, which is completed with a flush-mount surface completion, was not located during this sampling event despite multiple search attempts. Its lack of visibility may be attributed to Site conditions such as sediment accumulation or surface disturbance, and its accessibility will be reassessed in future sampling events.

December 2024

- Manganese concentrations exceeded the Site-specific background concentration at GRW-3, GRW-5, GBR-5, GBR-13, GBR-35, and SHS-13 with concentrations ranging from 5.59 mg/L (GBR-37) to 7.09 mg/L (SHS-13). Manganese concentrations at all other monitoring wells were below the Site-specific background concentration or the laboratory reporting limit.
- Lead was detected at a concentration of 0.0159 mg/L in monitoring well GBR-11, slightly exceeding the NMWQCC standard. Lead concentrations in all other monitoring wells were below the NMWQCC standard or the laboratory reporting limit.
- Benzene was detected at concentrations ranging from 1.0 µg/L to 3.00 µg/L in monitoring wells GBR-11, GBR-20, GBR-22, GBR-35, and GBR-55. All detected concentrations were below the NMWQCC standard. Benzene was not detected above the laboratory reporting limit in any other monitoring wells.
- Naphthalene was detected at GRW-11 at a concentration of 3.0 µg/L and 1-methylnaphthalene was detected at GBR-22 and GBR-35 at concentrations of 11 µg/L and 3.90 µg/L, respectively. All detected concentrations were below the combined NMWQCC standard. Naphthalene, 1-methylnaphthalene, and 2-Methylnaphthalene were not detected above the laboratory reporting limit in any other monitoring wells.
- A trace amount of PSH was observed in monitoring well MW-55. Due to the presence of PSH and the associated hydrocarbon impact, MW-55 was not sampled for groundwater analysis.
- Well SHS-9, which is completed with a flush-mount surface completion, was not located during this sampling event despite multiple search attempts. Its lack of visibility may be attributed to Site conditions such as sediment accumulation or surface disturbance, and its accessibility will be reassessed in future sampling events.
- Samples from monitoring wells GBR-54 and GBR-59 were damaged in transit to the laboratory and, as a result, were not analyzed for naphthalene, 1-methylnaphthalene, or 2-methylnaphthalene during this event.

CONCLUSIONS

Field activities completed in 2024 at the Site focused on implementing key components of the *Stage 2 Abatement Plan*, including delineation of residual vadose zone impacts, abandonment and replacement of select monitoring wells, and initiation of quarterly groundwater monitoring.

DRILLING AND MONITORING WELL INSTALLATION

In 2024, a targeted drilling program was completed to investigate potential vadose-zone sources sustaining PSH in monitoring wells near GBR-7, GBR-22, and GBR-41, and to improve delineation of hydrocarbon impacts. Nine boreholes were advanced using a combination of hollow-stem auger and ODEX methods, which allowed successful penetration of cobble-rich subsurface materials. All boreholes were completed as permanent monitoring wells constructed to span the capillary fringe and shallow saturated zone, enhancing PSH detection. Wells were permitted through the NMOSE and constructed in accordance with state regulations.

Elevated TPH concentrations in soil were detected in GBR-41R, GBR-53, GBR-55, GBR-56, GBR-57, GBR-58, GBR-59, and GBR-60, with total TPH concentrations exceeding 1,000 mg/kg in localized zones. While BTEX compounds were absent or present at low concentrations, measurable ethylbenzene and xylenes were detected in GBR-41R and GBR-55, though all values remained below applicable standards. These results suggest residual hydrocarbon impacts persist in discrete vadose zone intervals and may be contributing to observed PSH.

Additionally, several non-productive or damaged wells (GBR-21S, GBR-23, GBR-33, GBR-40, GBR-9, GBR-10, GBR-15, GBR-24S, GBR-26, and GBR-41) were plugged and abandoned in January 2024. Monitoring well GBR-41, which previously exhibited PSH, was replaced with GBR-41R, constructed with a revised screen interval to improve monitoring of hydrocarbon impacts.

Overall, the 2024 drilling and well installation activities improved spatial coverage of the monitoring network and identified residual hydrocarbon impacts in the vadose zone.

GROUNDWATER MONITORING

Groundwater monitoring conducted during the four quarterly events in 2024 provides an updated assessment of hydrogeologic conditions and water quality at the Site. The predominant direction of groundwater flow remains consistently to the south, aligning with historical observations and the regional hydrogeologic gradient. The hydraulic gradient across the Site is approximately 0.016 feet per foot. This stable flow direction supports the existing conceptual site model and provides a reliable framework for interpreting contaminant distribution, guiding future remediation, and informing potential future monitoring well placement.

Analytical results indicated the continued presence of dissolved metals and petroleum hydrocarbons at concentrations exceeding applicable regulatory standards or background concentrations in select locations. Manganese consistently exceeded the Site-specific background concentration in multiple wells, with recurring exceedances at GRW-2, GRW-5, GBR-5, GBR-13, and SHS-13. The highest manganese concentration (12 mg/L) was reported at GRW-1 during the May/June 2024 event. While manganese was present above background in these wells throughout the year, concentrations in all other wells remained below the established background concentration or the laboratory reporting limit.

Lead was detected intermittently at GBR-8, GBR-11 and GBR-54, with concentrations exceeding the NMWQCC standard during the September and December 2024 events. The highest

exceedance occurred in September, with a concentration of 0.071 mg/L reported at GBR-54. In contrast, lead was either not detected or was present below the applicable standard during the March and May/June 2024 events. These results suggest localized variability and seasonal variation in lead distribution across the Site.

Benzene was detected at concentrations exceeding the NMWQCC standard in monitoring well GBR-11 during the March (14 µg/L) and May/June (6.8 µg/L) events. In subsequent sampling events, benzene concentrations in GBR-11 and other wells were below the NMWQCC Standard, with no detections above the laboratory reporting limit in most wells. These results indicate a downward trend in benzene concentrations over time.

Naphthalene and its methylated derivatives were below the combined NMWQCC standard throughout the year. The only exceedance occurred in March 2024 at GBR-35, where the combined naphthalene concentration reached 311 µg/L. In all subsequent events, detected concentrations were lower and below the NMWQCC standard. Naphthalene-related compounds were not detected above laboratory reporting limits in most monitoring wells.

The presence of PSH was intermittently observed in several wells during each event. MW-55 consistently exhibited PSH thicknesses of up to 0.88 feet and was not sampled for dissolved-phase analysis in 2024. The PSH thickness in MW-55 had decreased to a trace sheen by December 2024. Trace amounts of PSH, ranging from 0.01 feet to 0.05 feet, were observed in wells such as GBR-7, GBR-22, GBR-25, GBR-35, GBR-41R, GBR-55, and GBR-59. Except for the September 2024 sampling event, where PSH was minimal, these wells were sampled and analyzed for dissolved-phase hydrocarbons to support ongoing monitoring. **Table 5** compares dissolved phase hydrocarbons in groundwater versus PSH thickness. MW-55 consistently exhibited the highest PSH thickness in 2024, reaching 0.88 feet in May. Due to the presence of PSH, dissolved-phase analysis was not conducted in this well during any sampling event, limiting direct correlation assessment. During future sampling events in 2025, product will be bailed out of MW-55 and a groundwater sample will be collected to evaluate dissolved phase concentrations and intermixing of PSH. Wells with trace PSH (0.01–0.05 ft), including GBR-7, GBR-22, GBR-25, GBR-35, GBR-41R, GBR-55, and GBR-59, generally showed low to non-detect concentrations of dissolved hydrocarbons, often below NMWQCC standards. No consistent correlation was observed between PSH thickness and elevated dissolved-phase concentrations in these wells. For example, 0.05 ft of PSH was measured at GBR-22 in March, but benzene and polycyclic aromatic hydrocarbons (PAH) concentrations were below laboratory reporting limits. Conversely, no PSH was measured at GBR-22 in May, yet benzene was detected at 1.6 µg/L, naphthalene at 2.7 µg/L, and 1-methylnaphthalene at 48 µg/L, which exceeds the NMWQCC standard for PAHs.

Field conditions impacted sampling efforts during the September 2024 event. Several wells were reported as obstructed, damaged, containing PSH, or dry, preventing collection of groundwater samples. Wells GRW-3, GBR-5, GBR-7, GBR-20, GBR-22, GBR-25, GBR-35, GBR-39, GBR-41R, GBR-59, GBR-60 and SHS-13 will be re-evaluated during future monitoring events to confirm the presence or absence of PSH and monitoring well functionality.

Additionally, well SHS-9 could not be located during the September and December 2024 events. This well is completed with a flush-mount surface completion and may have become obscured due to sediment buildup or surface disturbance caused from a culvert located immediately uphill of the well. Efforts to locate and assess the condition of SHS-9 will continue during upcoming sampling events. SHS-9 may also be considered for replacement if it cannot be located during future sampling events.

Lastly, two samples, GBR-54 and GBR-59, were damaged during transit to the laboratory in December 2024, and as a result, were not analyzed for naphthalene, 1-methylnaphthalene, and

2-methylnaphthalene. These wells will be prioritized for full analysis during the next sampling round.

In summary, the data collected in 2024 indicate ongoing exceedances of manganese and periodic exceedances of lead, benzene, and naphthalene at select monitoring wells. The intermittent presence of PSH and isolated hydrocarbon exceedances suggest residual impacts remain in specific areas beneath the Site. Continued quarterly monitoring, re-evaluation of wells with functionality issues, and quality assurance of field sampling procedures will be critical to tracking contaminant trends and informing future Site management decisions.

RECOMMENDATIONS

Based on the 2024 results and continued implementation of the approved abatement plan, Ensolum recommends the following actions for 2025. Should any of these recommendations be taken into consideration, a detailed work plan will be submitted under separate cover.

Semiannual Groundwater Monitoring

Seek approval to conduct semiannual sampling to monitor contaminant trends and assess long-term stability or potential rebound, particularly downgradient of residual vadose zone impacts. Once concentrations of constituents of concern (COCs) fall below Closure Criteria, transition to quarterly sampling until eight consecutive clean rounds are achieved.

Optimization of Groundwater Monitoring Network

Groundwater analytical results from 2024 indicate several monitoring wells, primarily in the northern portion of the Site, have consistently reported non-detect concentrations of all target COCs. To streamline monitoring efforts and focus on areas of known impact, Ensolum recommends removing the following wells from the sampling program:

- GRW-10, GRW-11, GRW-12, GRW-13, GBR-21D, GBR-24D, GBR-30, GBR-32, GBR-34, GBR-39, GBR-49, GBR-50, GBR-52, and SHS-9

These wells have demonstrated stable, background-level groundwater quality across all 2024 monitoring events and are no longer necessary for evaluating residual or migrating impacts.

Focused Source Area Remediation

Soil analytical results from 2024 confirmed the presence of residual TPH at concentrations exceeding 1,000 mg/kg in multiple vadose zone intervals, notably in boreholes GBR-41R (1,300 mg/kg), GBR-55 (1,430 mg/kg), GBR-59 (1,100 mg/kg), and GBR-60 (1,309 mg/kg). These intervals are in proximity to monitoring wells which historically exhibited persistent PSH. Remediation focused on vadose zone impacts includes:

- Targeted Excavation Feasibility Assessment. Localized excavation is not considered feasible due to the significant depth of vadose zone impacts, which presents challenges related to Site access and potential conflicts with nearby infrastructure. These limitations constrain the effectiveness and practicality of excavation as a remedial option for reducing mass loading to the aquifer.

- Evaluate in-situ remedial alternatives where excavation is infeasible due to depth or Site access limitations, consider in-situ amendments to enhance natural attenuation or degrade petroleum hydrocarbons. Potential options include:
 - Surfactant flushing or co-solvent flushing to increase contaminant mobility and promote desorption.
 - Oxygen-releasing compounds (ORCs) or slow-release nutrients to stimulate aerobic biodegradation of residual hydrocarbons.
 - In-Situ chemical oxidation (ISCO) to reduce TPH concentrations and/or presence of PSH in the vadose and saturated zones.
 - Anaerobic bioremediation using electron donors in low-oxygen zones.

Residual Dissolved Phase Hydrocarbons in Groundwater

Groundwater analytical results from 2024 confirmed exceedances of NMWQCC standards for dissolved-phase hydrocarbons, including benzene and PAHs, in multiple wells. While concentrations decreased in later events, detections of benzene, naphthalene, and 1-methylnaphthalene persisted through December in wells such as GBR-11, GBR-20, GBR-22, and GBR-35.

- Waterloo Emitter™ Deployment. Consider installation of Waterloo Emitters™ in impacted wells with residual dissolved-phase hydrocarbons and adequate permeability to promote in-situ aerobic biodegradation. These passive diffusion devices deliver oxygen at a controlled rate to the saturated zone without the need for power, enhancing natural attenuation processes. Emitters can be used in combination with other in-situ amendments to accelerate source area remediation.

PSH Recovery Optimization

PSH was observed throughout 2024 in several monitoring wells, limiting sample collection and indicating the continued presence of mobile free product in the upper saturated zone. To accelerate recovery and reduce long-term maintenance, Ensolum recommends the following:

- Conduct manual product recovery efforts at wells consistently exhibiting PSH (e.g., GBR-55, GBR-7, and GBR-22).
- Evaluate skimmer pump installation and deploy passive or active skimmer pumps in wells with recurrent PSH accumulation.
- Enhanced Recovery Techniques:
 - Absorbent sock installation may be used as an interim control measure in wells with thinner or discontinuous PSH.

Replacement or Rehabilitation of Inaccessible Wells

Reassess obstructed wells for accessibility and determine if rehabilitation or replacement is needed to support long-term monitoring objectives.

Metals Assessment

Conduct further evaluation of elevated manganese and lead concentrations in select wells. This may include geochemical speciation, trend analysis, and evaluation of potential anthropogenic versus background contributions.

- In Situ Chemical Reduction (ISCR). Pilot testing of a reductive amendment such as zero-valent iron (ZVI) or ferrous sulfate to immobilize manganese and lead by promoting reduction and precipitation reactions in the saturated zone, particularly near GRW-2, GRW-5, GBR-5, GBR-13, and SHS-13
- pH Adjustment and Precipitation. Evaluate the potential for localized alkaline amendment (e.g., lime or sodium carbonate) to increase pH and reduce metals solubility in areas with acidic or neutral groundwater conditions.
- Monitored Natural Attenuation (MNA). Conduct a detailed geochemical evaluation of groundwater conditions to assess the potential for natural attenuation processes, such as sorption to soil particles, dilution through aquifer dispersion, and redox-driven transformations that may immobilize or degrade dissolved metals. This evaluation should include spatial and temporal trends in dissolved metal concentrations, redox indicators (e.g., dissolved oxygen, nitrate, sulfate, iron, manganese), and key geochemical parameters (e.g., pH, oxidation-reduction potential, alkalinity). If supported by site data, these mechanisms may demonstrate that natural attenuation is occurring at a sufficient rate and extent to mitigate risk to receptors. The findings may support the regulatory acceptance of MNA as a viable, long-term management strategy for metals, provided that plume stability, source control, and long-term monitoring objectives can be met.

Update Conceptual Site Model (CSM)

Use 2024 and upcoming 2025 data to refine the existing CSM, particularly with respect to residual source areas, PSH mobility, and groundwater plume behavior. This updated understanding will inform future remedial decisions and guide long-term Site management.

REFERENCES

New Mexico Water Quality Control Commission (NMWQCC). (2020). *20.6.2 NMAC: Ground and Surface Water Protection Standards*.

New Mexico Oil Conservation Division (NMOCD). (2021). *New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29: Release Notification and Corrective Action Requirements*. Energy, Minerals, and Natural Resources Department.

Stone, W., Lyford, F., Frenzel, P., Mizell, N., & Padgett, E. (1983). *Hydrogeology and Water Resources of San Juan Basin, New Mexico*. New Mexico Bureau of Mines & Mineral Resources.

WSP USA. (2021). *Stage 2 Abatement Plan: Former Giant Bloomfield Refinery*. Prepared for Western Refining Southwest, LLC. May 18, 2021.

Ensolum appreciates the opportunity to provide this report to you. If you have any questions or comments regarding this report, do not hesitate to contact the undersigned.

Sincerely,
Ensolum, LLC



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Attachments:

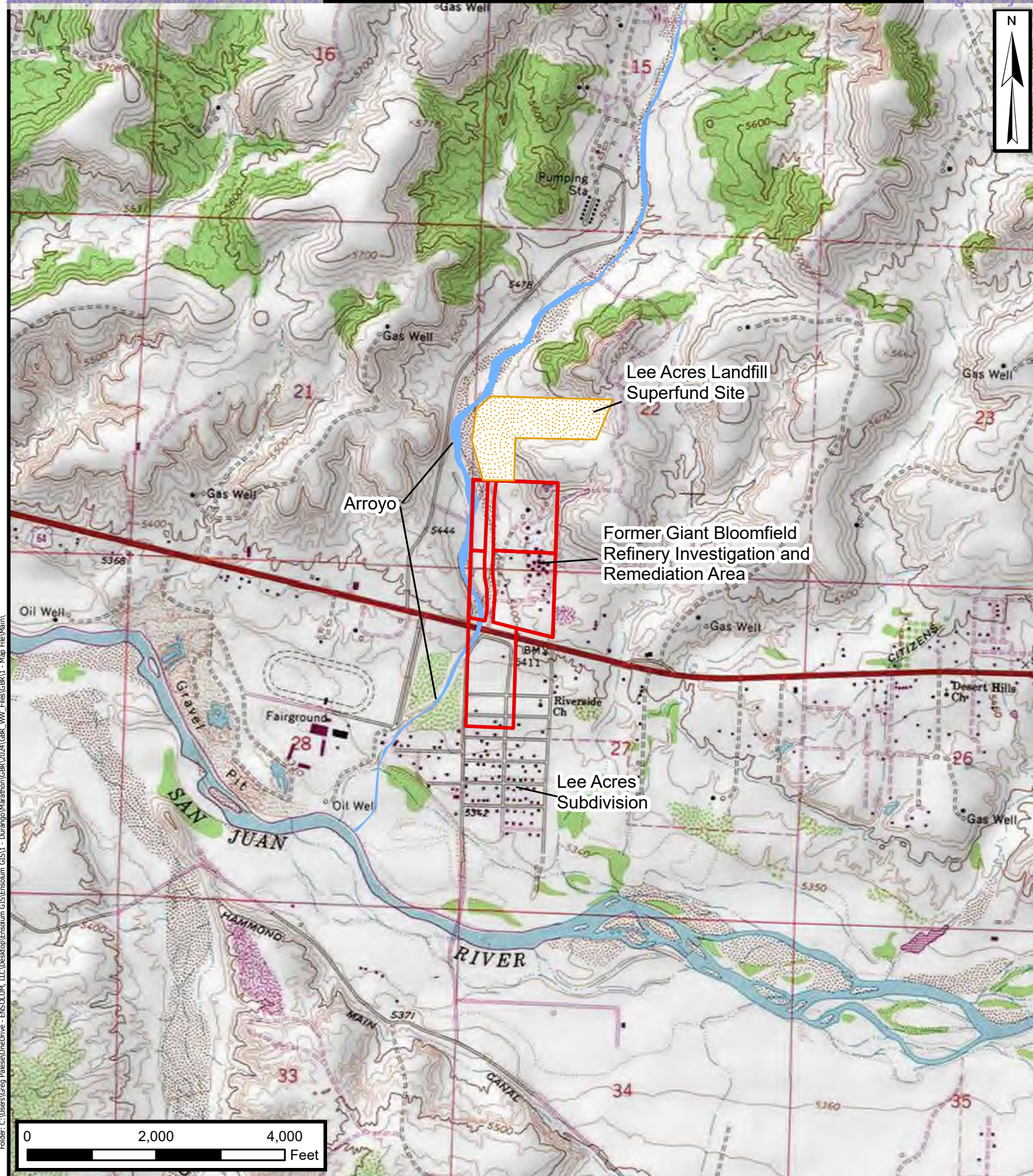
Figure 1: Site Location Map
Figure 2: Well Location Map
Figure 3: Soil Sample Analytical Results
Figure 4: Groundwater Elevation Contour Map March 2024
Figure 5: Groundwater Elevation Contour Map May/June 2024
Figure 6: Groundwater Elevation Contour Map September 2024
Figure 7: Groundwater Elevation Contour Map December 2024
Figure 8: Groundwater Analytical Results March 2024
Figure 9: Groundwater Analytical Results May/June 2024
Figure 10: Groundwater Analytical Results September 2024
Figure 11: Groundwater Analytical Results December 2024

Table 1: Well Construction Information
Table 2: Soil Analytical Results
Table 3: Groundwater Elevation
Table 4: Groundwater Analytical Results
Table 5: Dissolved Phase Hydrocarbons in Groundwater Versus PSH Thickness

Appendix A: Borehole Logs
Appendix B: Soil Laboratory Analytical Reports
Appendix C: Groundwater Laboratory Analytical Reports



FIGURES



Site Location Map

Western Refining Southwest, LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W
& SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE

1

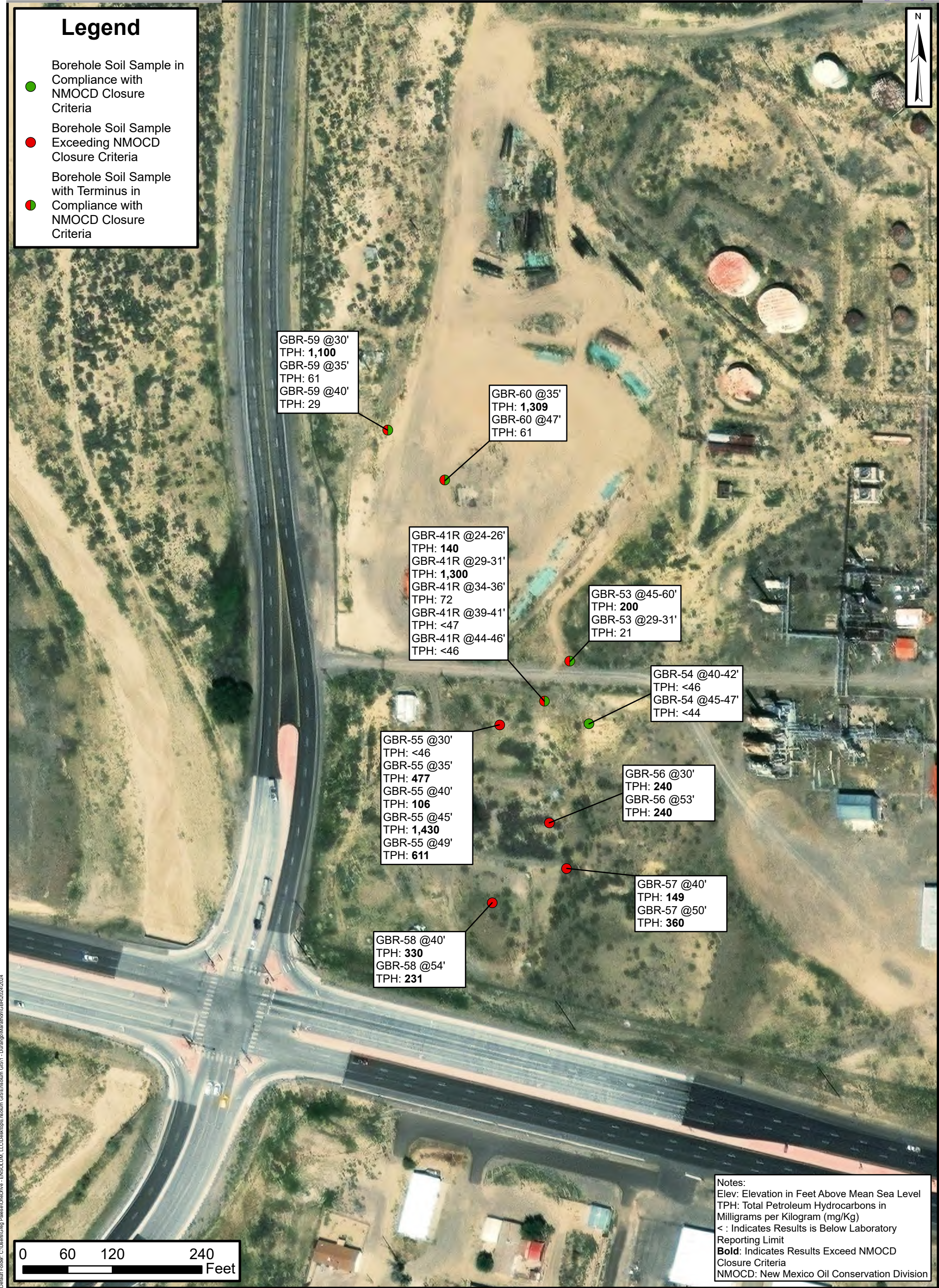


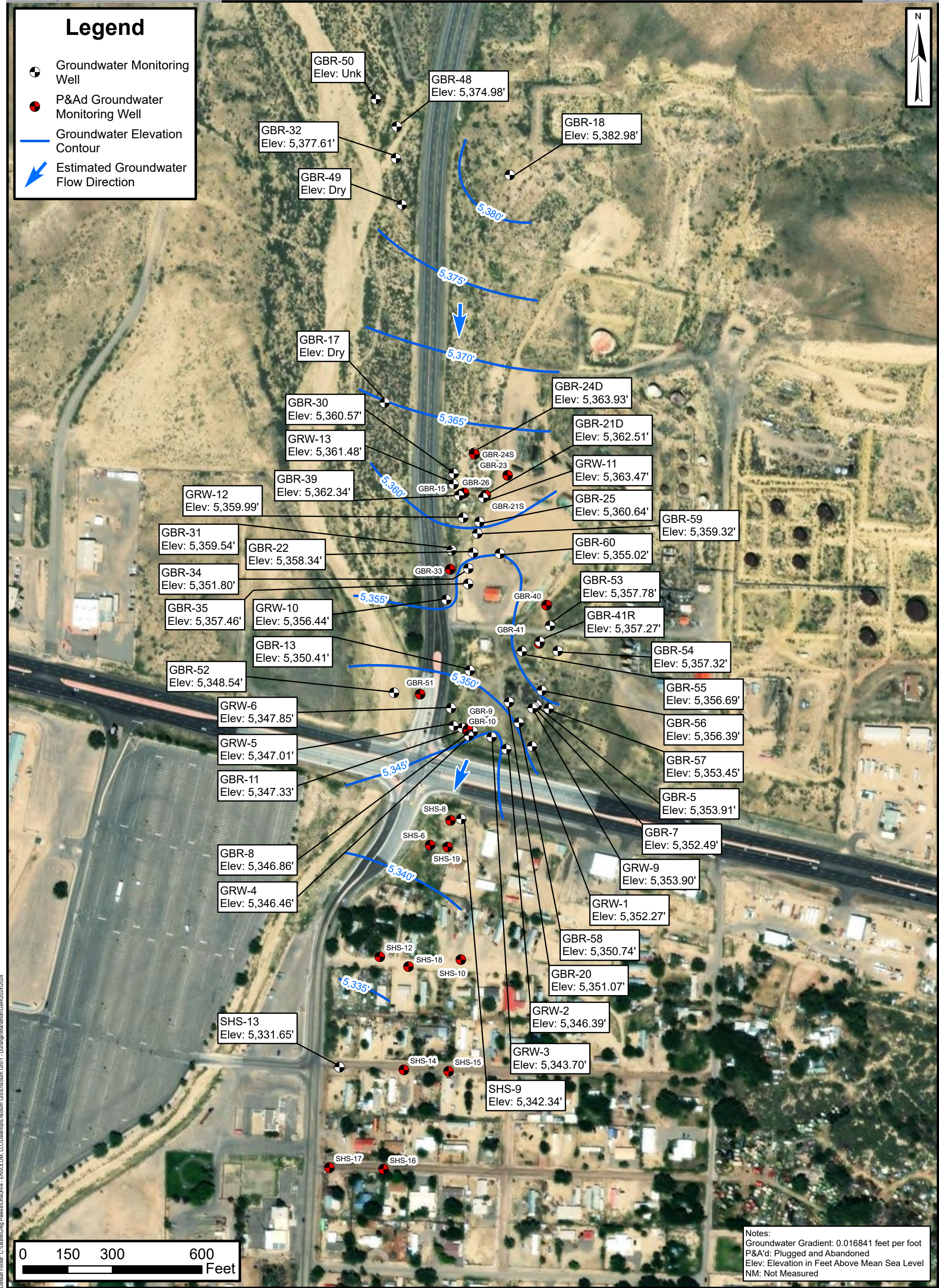
Well Location Map

Western Refining Southwest, LLC
Former Giant Bloomfield Refinery

NWNW Sec 27, T29N, R12W
& SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE
2



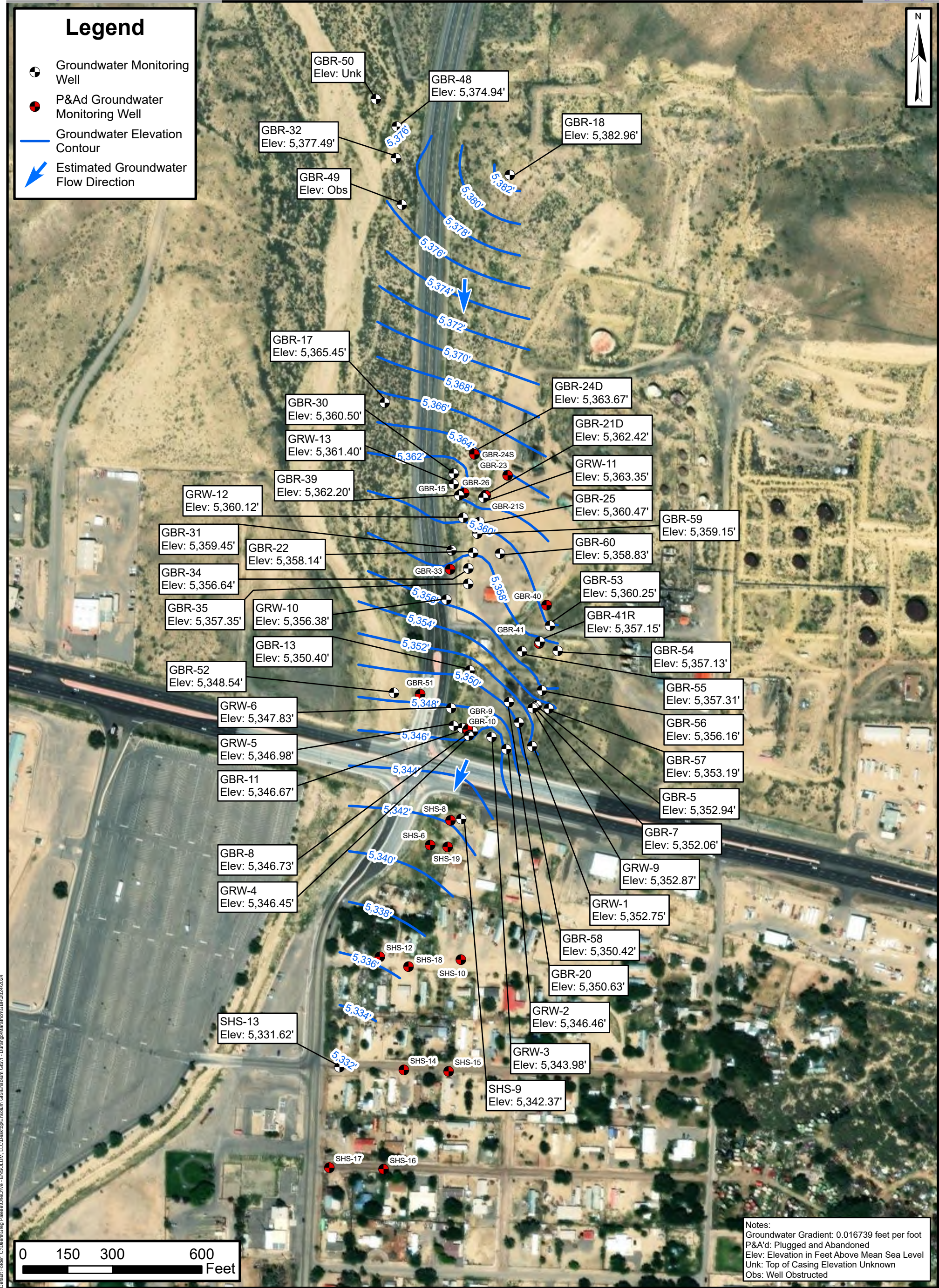


Groundwater Elevation Contours March 2024

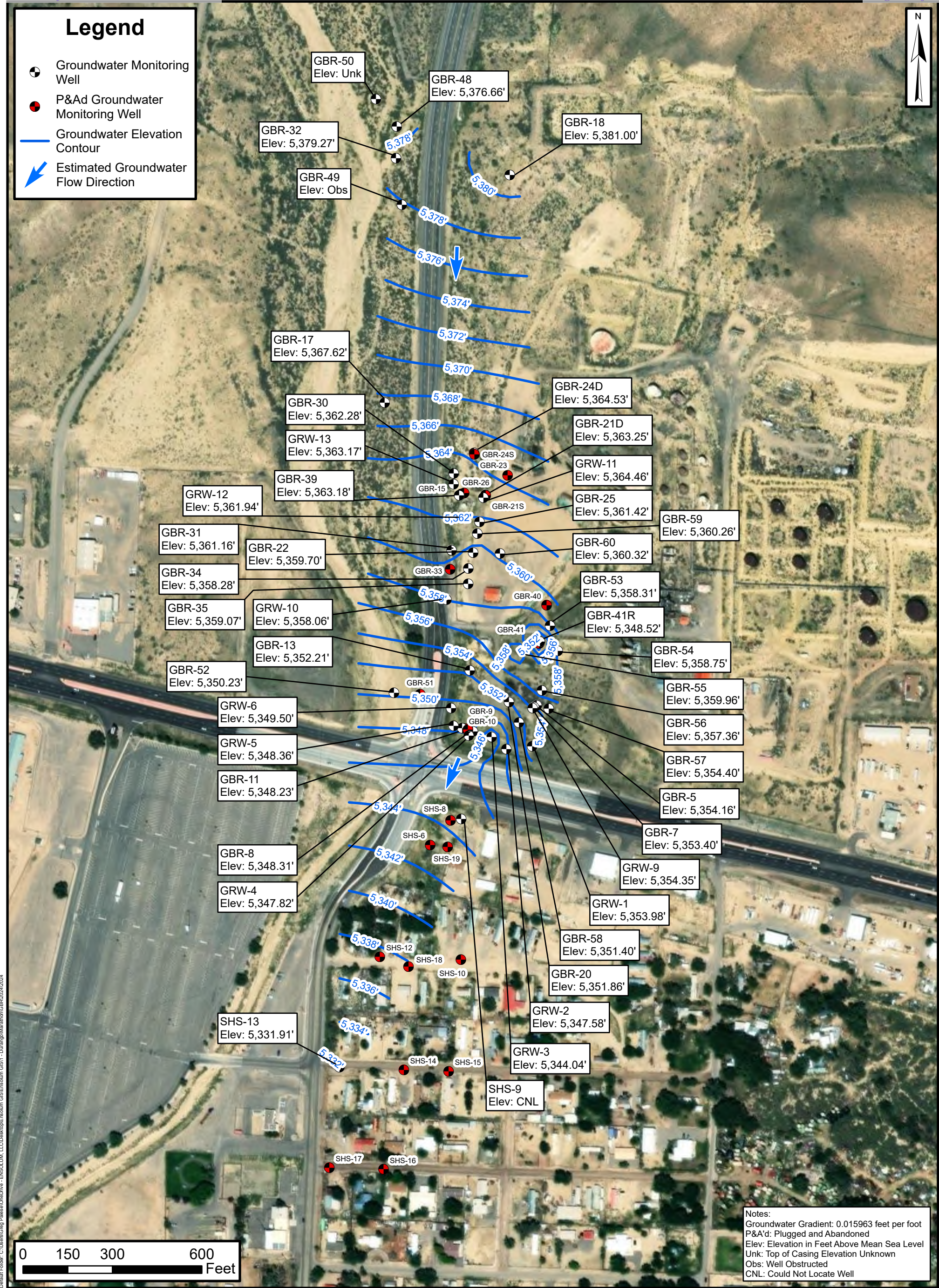
Western Refining Southwest, LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W
& SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE
4







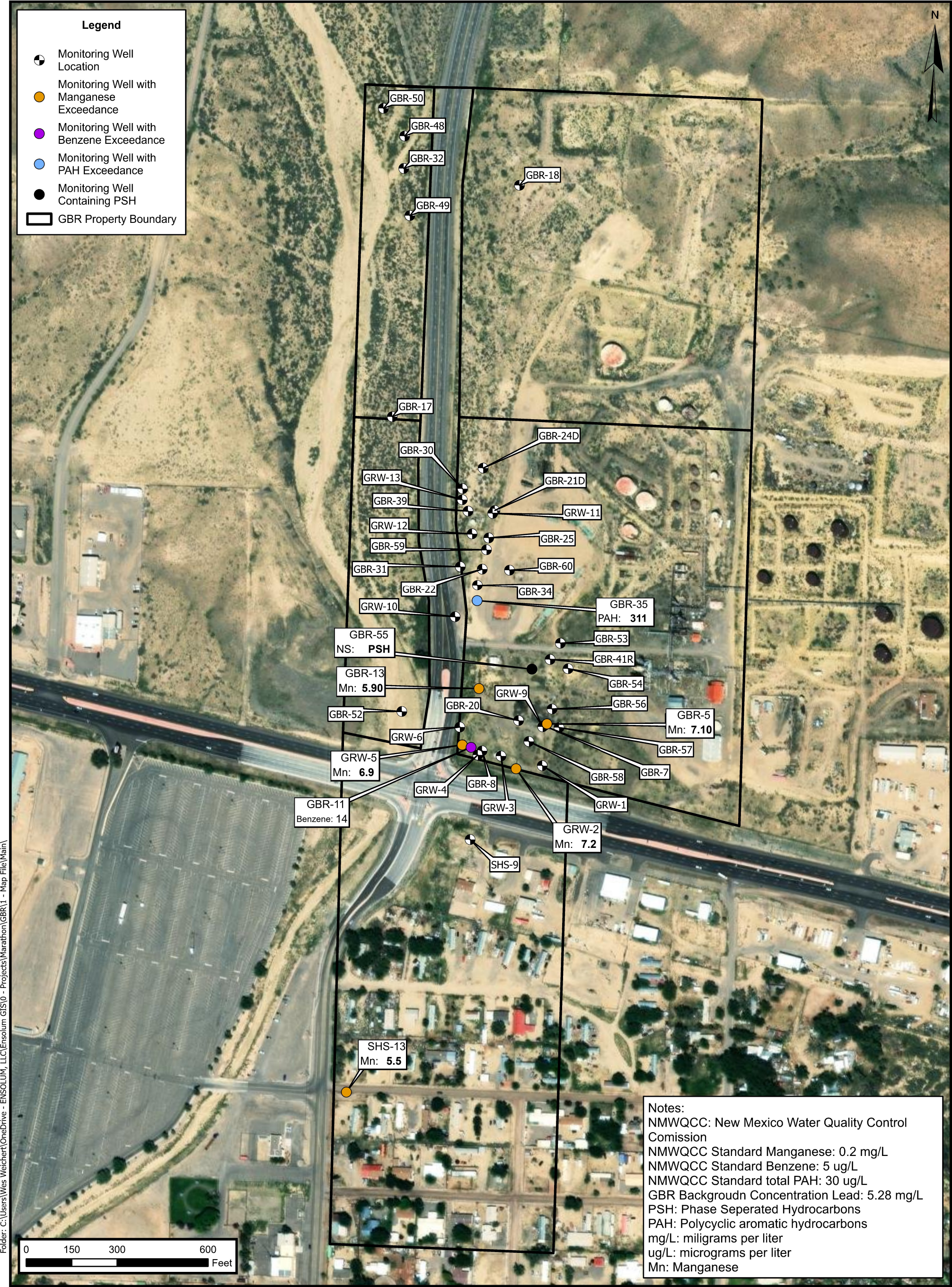


Groundwater Elevation Contours December 2024

Western Refining Southwest, LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W
& SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE
7





ENSOLUM

Environmental, Engineering and Hydrogeologic Consultants

Groundwater Analytical Results

March 2024

Western Refining Southwest, LLC

Former Giant Bloomfield Refinery

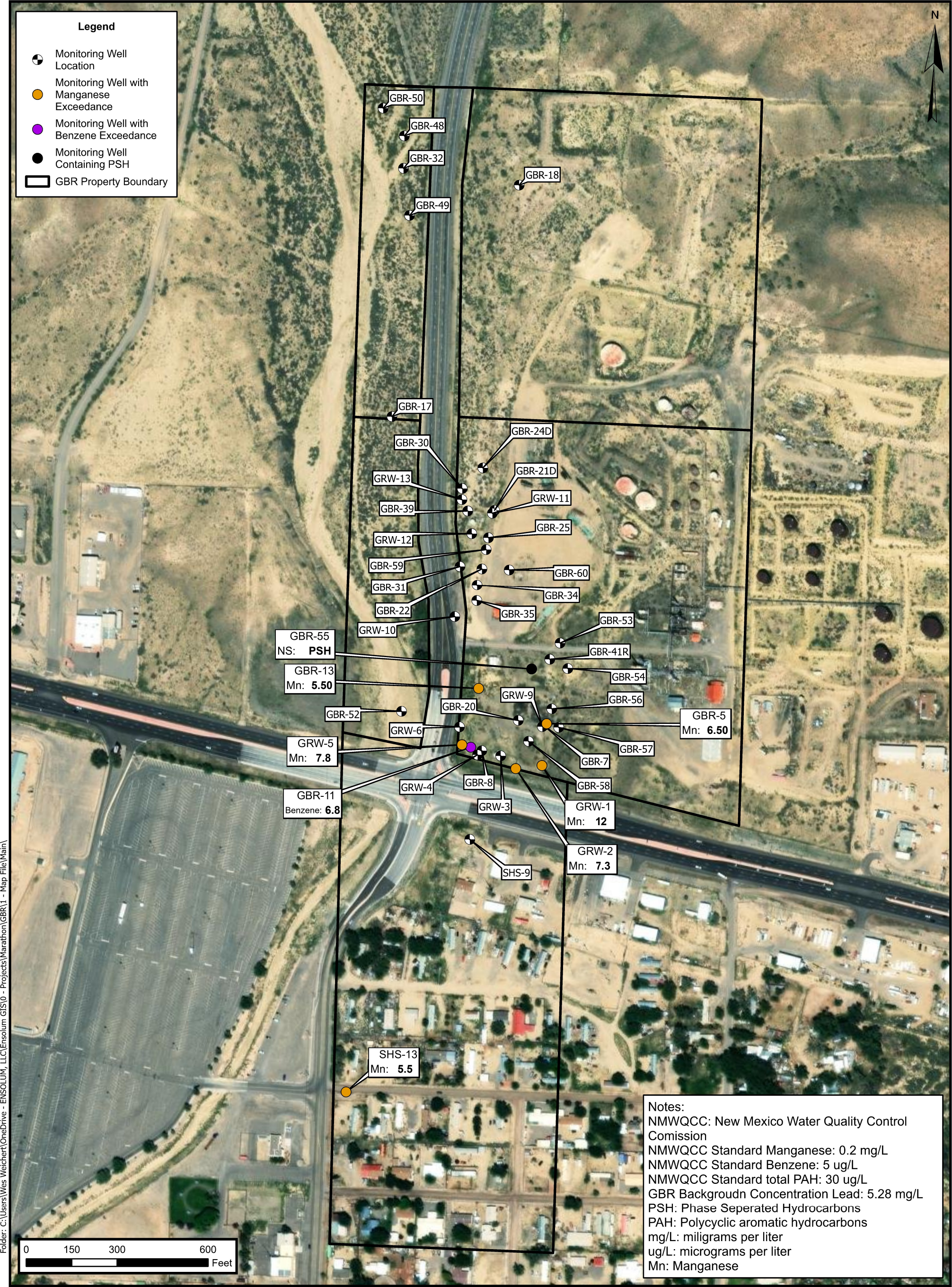
NWNW Sec 27, T29N, R12W, /

SWSW Sec 22 T29N, R12W

San Juan County, New Mexico

FIGURE

8



ENSOLUM

Environmental, Engineering and Hydrogeologic Consultants

Groundwater Analytical Results

May/June 2024

Western Refining Southwest, LLC

Former Giant Bloomfield Refinery

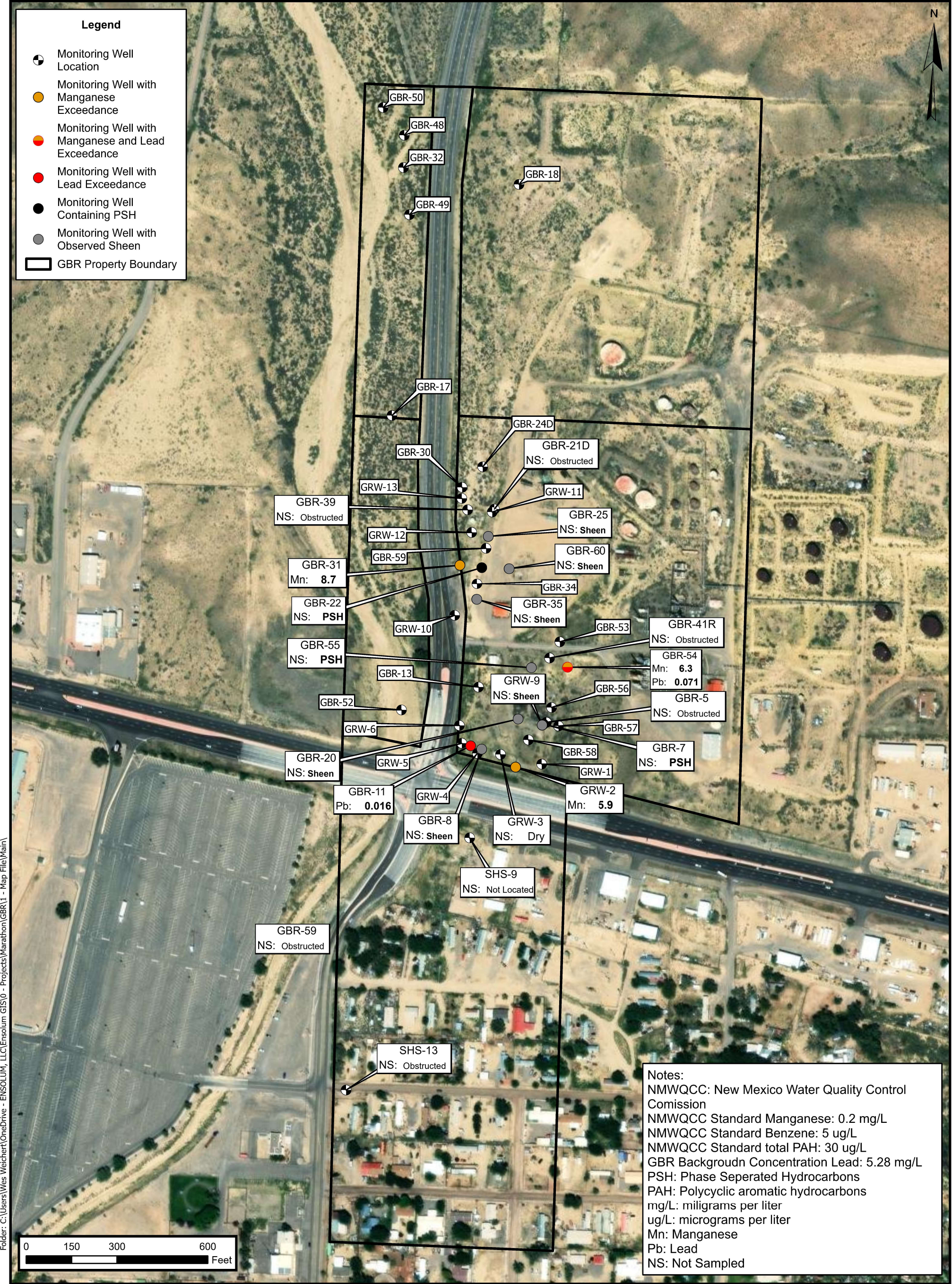
NWNW Sec 27, T29N, R12W, /

SWSW Sec 22 T29N, R12W

San Juan County, New Mexico

FIGURE

9



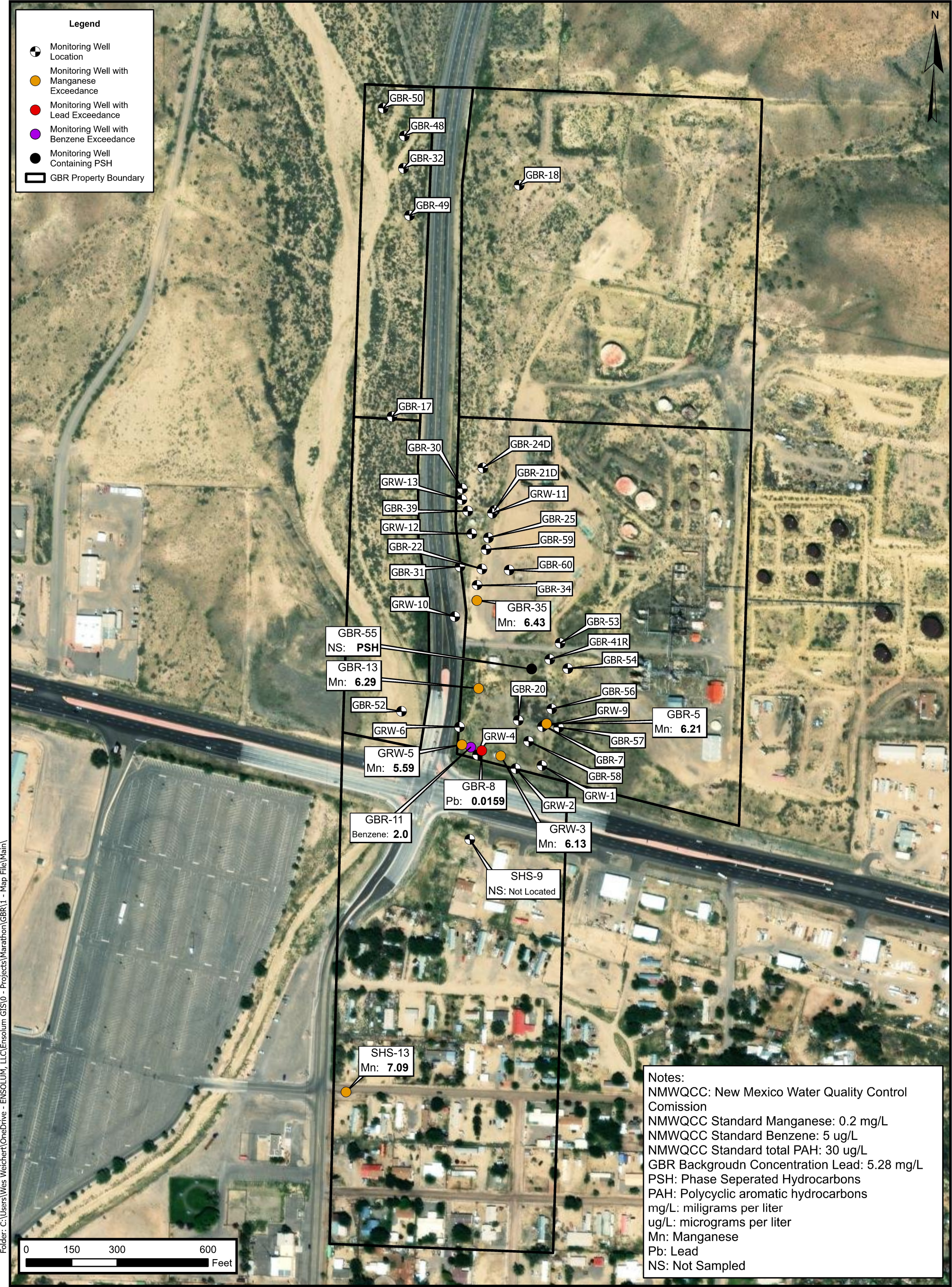
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Groundwater Analytical Results September 2024

Western Refining Southwest, LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE
10





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Groundwater Analytical Results December 2024

Western Refining Southwest, LLC
Former Giant Bloomfield Refinery
NWNW Sec 27, T29N, R12W, /
SWSW Sec 22 T29N, R12W
San Juan County, New Mexico

FIGURE
11





TABLES



TABLE 1
WELL CONSTRUCTION INFORMATION
 FORMER GIANT BLOOMFIELD REFINERY
 WESTERN REFINING SOUTHWEST, LLC
 SAN JUAN COUNTY, NEW MEXICO

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	Screened Interval (feet BTOC)	Screen Placement (lithology)	Well Diameter (inches)
GRW-1 / GBR-38	5,394.30	72.59	27 - 67	sand/sandstone	6
GRW-2 / GBR-42	5,391.28	66.11	37 - 52	sand	6
GRW-3 / GBR-29	5,388.77	60.90	25 - 65	sand/sandstone	6
GRW-4 / GBR-43	5,390.02	66.30	35 - 50	sand	6
GRW-5 / GBR-37	5,390.56	75.44	26 - 66	sand/sandstone	6
GRW-6 / GBR-44	5,390.81	63.11	33 - 48	sand	6
GRW-9 / GBR-6	5,395.70	54.90	20 - 60	sand/sandstone	6
GRW-10 / GBR-36	5,393.78	66.02	25 - 65	sand/clay/gravel	6
GRW-11 / GBR-27	5,397.85	55.60	22 - 62	sand/shale/sandstone	6
GRW-12 / GBR-28	5,397.24	51.76	24 - 64	sand/clay/sandstone	6
GRW-13 / GBR-14	5,396.90	70.86	20 - 60	sand/gravel	6
GBR-5*	5,395.07	46.88	32 - 52	sandstone	2
GBR-7	5,395.85	50.56	32 - 42	sand	2
GBR-8	5,390.50	49.26	38 - 53	sand	2
GBR-11	5,389.43	51.20	40 - 50	sand	2
GBR-13*	5,393.04	45.40	32 - 42	sandstone	2
GBR-17	5,402.69	50.25	31 - 51	sand	2
GBR-18*	5,421.68	47.87	35 - 45	siltstone/sandstone	2
GBR-20*	5,393.47	44.60	27 - 37	sandstone	2
GBR-21D*	5,400.19	48.64	33 - 38	shale	2
GBR-22*	5,395.91	45.85	32 - 42	sandstone	2
GBR-24D*	5,396.77	51.44	33 - 43	sandstone	2
GBR-25*	5,397.03	50.27	33 - 43	sandstone	2
GBR-30	5,395.59	41.44	25 - 40	sand/clay	2
GBR-31	5,396.58	43.50	25 - 40	clay/gravel	2
GBR-32*	5,414.86	47.90	25 - 40	sandstone	2
GBR-34	5,394.00	46.70	27 - 43	sand/sandstone	2
GBR-35	5,393.66	41.62	25 - 41	sand/sandstone	2
GBR-39	5,397.55	41.39	25 - 35	sand	2
GBR-41R	5,397.21	55.14	37 - 52	sand	2
GBR-48	5,413.90	43.76	28 - 38	sand/gravel	2
GBR-49	(2)	40.26	26 - 36	sand	2
GBR-50	(2)	40.63	27 - 37	sand	2
GBR-52 / GRW-8	5,387.74	54.59	30 - 45	sand	6
GBR-53	5,405.73	62.70	45 - 60	sand/silt	2
GBR-54	5,400.14	55.37	38 - 52	sand/clay	2
GBR-55	5,397.75	51.97	34 - 49	sand/silt	2
GBR-56	5,395.07	55.04	38 - 53	sand/silt	2
GBR-57	5,396.29	52.94	34 - 49	sand/silt	2
GBR-58	5,393.29	55.39	37 - 52	sand/silt	2
GBR-59	5,397.22	49.95	32 - 47	sand	2
GBR-60	5,397.20	49.58	32 - 47	sand	2
SHS-9	5,380.79	46.27	35 - 45	clay	4
SHS-13	5,367.81	47.51	27 - 42	sand	4



TABLE 1
WELL CONSTRUCTION INFORMATION
 FORMER GIANT BLOOMFIELD REFINERY
 WESTERN REFINING SOUTHWEST, LLC
 SAN JUAN COUNTY, NEW MEXICO

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	Screened Interval (feet BTOC)	Screen Placement (lithology)	Well Diameter (inches)
Wells Plugged and Abandoned or Damaged					
GBR-9	5,389.92	67.28	50 - 60	silt/shale	2
GBR-10	5,390.57	47.50	29 - 39	sand	2
GBR-15	5,397.99	58.33	45 - 55	clay	2
GBR-19 (3)	5,393.83	46.23	-	-	-
GBR-21S*	5,400.65	34.85	17 - 32	shale	2
GBR-23 (1)*	5,403.72	41.75	24 - 34	sandstone	2
GBR-24S*	5,396.08	33.50	23 - 33	sandstone	2
GBR-26	5,396.72	42.54	25 - 35	sand	2
GBR-33	5,396.28	45.77	27 - 43	clay/sand	2
GBR-40	5,400.76	39.40	26 - 36	sand	2
GBR-41	5,396.35	34.34	22 - 32	sand	2
GBR-51 / GRW -7	5,389.68	57.07	-	-	-
SHS-1	5,383.54	50.40	-	-	-
SHS-2	5,381.66	44.56	-	-	-
SHS-3	5,383.33	-	-	-	-
SHS-4	5,383.62	52.16	-	-	-
SHS-5	5,378.36	47.85	-	-	-
SHS-6	5,378.17	52.78	-	-	-
SHS-8	5,380.25	50.92	-	-	-
SHS-10	5,373.80	45.80	-	-	-
SHS-12	5,373.94	52.41	-	-	-
SHS-14	5,367.07	52.71	-	-	-
SHS-15	5,366.21	47.78	-	-	-
SHS-16	5,362.58	42.20	-	-	-
SHS-17	5,364.35	46.21	-	-	-
SHS-18	5,373.64	47.36	-	-	-
SHS-19	5,378.89	52.40	-	-	-

Notes:

(1) Well hit by a vehicle May 2014

(2) Top-of-casing elevation is unknown

(3) Well was paved over in June 2010

* - asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer

BTOC - below top of casing

D - designates that the well screen is deep

P&A - plugged and abandoned

S - designates that the well screen is shallow

GBR-1, GBR-2, GBR-3, GBR-4, GBR-12, GBR-16, GBR-45, GBR-46, and GBR-47 not completed as wells



TABLE 2
DELINEATION SOIL SAMPLE ANALYTICAL RESULTS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, LLC
SAN JUAN COUNTY, NEW MEXICO

Sample ID	Date	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (mg/kg)
NMOCDClosure Criteria for Soils Impacted by a Release			10	NE	NE	NE	50	NE	NE	NE	100
GBR-41R 24-26'	1/23/2024	24 - 26	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	91	49	140
GBR-41R 29-31'	1/23/2024	29 - 31	<0.11	<0.23	0.29	0.70	0.99	200	1,100	<470	1,300
GBR-41R 34-36'	1/23/2024	34 - 36	<0.024	<0.048	<0.048	<0.097	<0.097	11	61	<45	72
GBR-41R 39-41'	1/23/2024	39 - 41	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.4	<47	<47
GBR-41R 44-46'	1/23/2024	44 - 46	<0.023	<0.046	<0.046	<0.091	<0.091	<4.6	<9.3	<46	<46
GBR53 @ 45	3/11/2024	45	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	30	170	200
GBR53 @ 60	3/12/2024	60	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	21	<48	21
GBR-54 40-42'	1/24/2024	40 - 42	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.2	<46	<46
GBR-54 45-47'	1/24/2024	45 - 47	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<8.8	<44	<44
GBR55 @ 30	3/12/2024	30	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	19	<46	<46
GBR55 @ 35	3/12/2024	35	<0.023	<0.046	<0.046	<0.093	<0.093	7.2	270	200	477
GBR55 @ 40	3/12/2024	40	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	62	44	106
GBR55 @ 45	3/12/2024	45	<0.023	<0.046	<0.046	0.14	0.14	30	1,400	<480	1,430
GBR55 @ 49	3/12/2024	49	<0.024	<0.048	<0.048	0.10	0.10	27	490	94	611
GBR56 @ 30	3/13/2024	30	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	110	130	240
GBR56 @ 53	3/13/2024	53	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	100	140	240
GBR57 @ 40	3/14/2024	40	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	77	72	149
GBR57 @ 50	3/14/2024	50	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	190	170	360
GBR58 @ 40	3/13/2024	40	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	200	130	330
GBR58 @ 54	3/14/2024	54	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	160	71	231
GBR 59 @ 30	3/18/2024	30	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	1,100	<380	1,100
GBR 59 @ 35	3/18/2024	35	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	61	<49	61
GBR 59 @ 47	3/18/2024	30	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	29	<43	29
GBR 60 @ 35	3/18/2024	35	<0.024	<0.049	<0.049	<0.098	<0.098	8.8	1,300	<380	1,309
GBR 60 @ 47	3/18/2024	47	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	61	<44	61

Notes:

bgs: below ground surface
 BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
 DRO: Diesel Range Organics
 GRO: Gasoline Range Organics
 mg/kg: milligrams per kilogram
 MRO: Motor Oil/Lube Oil Range Organics
 NE: Not Established

NMOCDC: New Mexico Oil Conservation Division

TPH: Total Petroleum Hydrocarbon

': feet

<: indicates result less than the stated laboratory reporting limit (RL)

Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release



TABLE 3
GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE-SEPARATED HYDROCARBONS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST LLC
SAN JUAN COUNTY, NEW MEXICO

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	March 2024				June 2024				September 2024				December 2024			
			Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet amsl)
GRW-1 / GBR-38	5,394.30	72.59	42.03	-	-	5,352.27	41.55	-	-	5,352.75	41.44	-	-	5,352.86	40.32	-	-	5,353.98
GRW-2 / GBR-42	5,391.28	66.11	44.89	-	-	5,346.39	44.82	-	-	5,346.46	44.05	-	-	5,347.23	43.70	-	-	5,347.58
GRW-3 / GBR-29	5,388.77	60.90	45.07	-	-	5,343.70	44.79	-	-	5,343.98	Obstructed				44.73	-	-	5,344.04
GRW-4 / GBR-43	5,390.02	66.30	43.56	-	-	5,346.46	43.57	-	-	5,346.45	42.69	-	-	5,347.33	42.20	-	-	5,347.82
GRW-5 / GBR-37	5,390.56	75.44	43.55	-	-	5,347.01	43.58	-	-	5,346.98	42.23	-	-	5,348.33	42.20	-	-	5,348.36
GRW-6 / GBR-44	5,390.81	63.11	42.96	-	-	5,347.85	42.98	-	-	5,347.83	42.55	-	-	5,348.26	41.31	-	-	5,349.50
GRW-9 / GBR-6	5,395.70	54.90	41.80	-	-	5,353.90	42.83	-	-	5,352.87	41.95	-	-	5,353.75	41.35	-	-	5,354.35
GRW-10 / GBR-36	5,393.78	66.02	37.34	-	-	5,356.44	37.40	-	-	5,356.38	35.78	-	-	5,358.00	35.72	-	-	5,358.06
GRW-11 / GBR-27	5,397.85	55.60	34.38	-	-	5,363.47	34.50	-	-	5,363.35	33.63	-	-	5,364.22	33.39	-	-	5,364.46
GRW-12 / GBR-28	5,397.24	51.76	37.25	-	-	5,359.99	37.12	-	-	5,360.12	35.23	-	-	5,362.01	35.30	-	-	5,361.94
GRW-13 / GBR-14	5,396.90	70.86	35.42	-	-	5,361.48	35.50	-	-	5,361.40	33.83	-	-	5,363.07	33.73	-	-	5,363.17
GBR-5	5,395.07	46.88	41.16	-	-	5,353.91	42.13	-	-	5,352.94	Obstructed				40.91	-	-	5,354.16
GBR-7	5,395.85	50.56	43.36	Trace	-	5,352.49	43.79	-	-	5,352.06	41.36	41.32	0.04	5,354.52	42.45	-	-	5,353.40
GBR-8	5,390.50	49.26	43.64	-	-	5,346.86	43.77	-	-	5,346.73	42.74	-	-	5,347.76	42.19	-	-	5,348.31
GBR-11	5,389.43	51.20	42.10	-	-	5,347.33	42.76	-	-	5,346.67	41.61	-	-	5,347.82	41.20	-	-	5,348.23
GBR-13	5,393.04	45.40	42.63	-	-	5,350.41	42.64	-	-	5,350.40	41.15	-	-	5,351.89	40.83	-	-	5,352.21
GBR-17	5,402.69	50.25	DRY @ 37.25	-	-	-	37.24	-	-	5,365.45	35.04	-	-	5,367.65	35.07	-	-	5,367.62
GBR-18	5,421.68	47.63	38.70	-	-	5,382.98	38.72	-	-	5,382.96	39.16	-	-	5,382.52	40.68	-	-	5,381.00
GBR-20	5,393.47	44.60	42.40	-	-	5,351.07	42.84	-	-	5,350.63	42.15	-	-	5,351.32	41.61	-	-	5,351.86
GBR-21D	5,400.19	48.64	37.68	-	-	5,362.51	37.77	-	-	5,362.42	36.97	-	-	5,363.22	36.94	-	-	5,363.25
GBR-22	5,395.91	45.85	37.57	37.52	0.05	5,358.38	37.77	-	-	5,358.14	36.26	36.23	0.03	5,359.67	36.21	-	-	5,359.70
GBR-24D	5,396.77	51.44	32.84	-	-	5,363.93	33.10	-	-	5,363.67	32.42	-	-	5,364.35	32.24	-	-	5,364.53
GBR-25	5,397.03	50.12	36.39	-	-	5,360.64	36.57	36.56	0.01	5,360.47	35.44	35.42	0.02	5,361.61	35.61	-	-	5,361.42
GBR-30	5,395.59	41.44	35.02	-	-	5,360.57	35.09	-	-	5,360.50	33.21	-	-	5,362.38	33.31	-	-	5,362.28
GBR-31	5,396.58	46.40	37.04	-	-	5,359.54	37.13	-	-	5,359.45	35.40	-	-	5,361.18	35.42	-	-	5,361.16
GBR-32	5,414.86	47.90	37.25	-	-	5,377.61	37.37	-	-	5,377.49	36.15	-	-	5,378.71	35.59	-	-	5,379.27
GBR-34	5,394.00	46.70	42.20	-	-	5,351.80	37.36	-	-	5,356.64	35.80	-	-	5,358.20	35.72	-	-	5,358.28
GBR-35	5,393.66	41.62	36.20	-	-	5,357.46	36.31	-	-	5,357.35	34.64	34.63	0.01	5,359.03	34.59	-	-	5,359.07
GBR-39	5,397.55	41.39	35.21	-	-	5,362.34	35.35	-	-	5,362.20	34.23	-	-	5,363.32	34.37	-	-	5,363.18
GBR-41R	5,397.21	55.14	39.94	39.93	0.01	5,357.28	40.06	-	-	5,357.15	38.53	-	-	5,358.68	48.69	-	-	5,348.52
GBR-48	5,413.90	43.44	38.92	-	-	5,374.98	38.96	-	-	5,374.94	37.82	-	-	5,376.08	37.24	-	-	5,376.66
GBR-49	(1)	40.26	DRY @ 37.77	-	-	-	Obstructed				34.04	-	-	-	Obstructed			
GBR-50	(1)	40.63	34.64	-	-	-	34.67	-	-	-	33.56	-	-	-	32.97	-	-	-
GBR-52 / GRW-8	5,387.74	54.59	39.20	-	-	5,348.54	39.20	-	-	5,348.54	37.32	-	-	5,350.42	37.51	-	-	5,350.23
GBR-53	5,405.73	62.70	47.95	-	-	5,357.78	45.48	-	-	5,360.25	47.24	-	-	5,358.49	47.42	-	-	5,358.31
GBR-54	5,400.14	55.37	42.82	-	-	5,357.32	43.01	-	-	5,357.13	41.35	-	-	5,358.79	41.39	-	-	5,358.75
GBR-55	5,397.75	51.97	41.06	40.36	0.70	5,357.25	41.30	40.42	0.88	5,356.45	38.77	38.76	0.01	5,358.99	37.79	Trace	-	5,359.96
GBR-56	5,395.07	55.04	38.68	-	-	5,356.39	38.91	-	-	5,356.16	37.75	-	-	5,357.32	37.71	-	-	5,357.36
GBR-57	5,396.29	52.94	42.84	-	-	5,353.45	43.10	-	-	5,353.19	42.22	-	-	5,354.07	41.89	-	-	5,354.40
GBR-58	5,393.29	55.39	42.55	-	-	5,350.74	42.87	-	-	5,350.42	42.02	-	-	5,351.27	41.89	-	-	5,351.40
GBR-59	5,397.22	49.95	37.90	37.89	0.01	5,359.33	38.07	-	-	5,359.15	37.01	-	-	5,360.21	36.96	-	-	5,360.26
GBR-60	5,397.20	49.58	42.18	-	-	5,355.02	38.37	-	-	5,358.83	37.21	-	-	5,359.99	36.88	-	-	5,360.32
SHS-9	5,380.79	46.66	38.45	-	-	5,342.34	38.42	-	-	5,342.37	Missing/buried				Missing/buried			
SHS-13	5,367.81	47.51	36.16	-	-	5,331.65	36.19	-	-	5,331.62	38.85	-	-	5,328.96	35.9	-	-	5,331.91

Notes:
(1) Top-of-casing elevation is unknown
AMSL - above mean sea level
BTOC - below top of casing
D - designates that the well screen is deep
GWEL - groundwater elevation
PSH - phase-separated hydrocarbon



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GRW-1/GBR-38	Jun-88	---	---	ND	---	---	---
	Mar-21	2.9	0.0011	<1.0	<2.0	<4.0	<4.0
	Mar-24	1.3	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	12	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.13	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	1.89	<0.0050	<0.5	<1	<0.5	<1
GRW-2/GBR-42	Sep-89	---	---	0.26	---	---	---
	Feb-21	3.3	<0.00050	<1.0	<2.0	<2.0	<2.0
	Mar-24	7.2	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	7.3	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	5.9	<0.0020	<2.0	<4.0	<8.0	<8.0
	Dec-24	4.81	<0.0050	<0.5	<1	<0.5	<1
GRW-3/GBR-29	Jun-86	---	---	3,818	---	---	---
	Jun-88	---	---	3,500	---	---	---
	Jan-00	---	---	16	---	---	---
	Jan-05	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.69	---	<1.0	<2.0	<4.0	<4.0
	Nov-19	1.4	---	<1.0	<2.0	<2.0	<2.0
	Feb-21	1.8	<0.00050	<1.0	<2.0	<4.0	<4.0
	Mar-24	1.6	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	1.6	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Dry					
	Dec-24	6.13	<0.0050	<0.5	<2	<1	<2
GRW-4/GBR-43	Sep-89	---	---	950	---	---	---
	Feb-21	4.4	0.00098	<5.0	<10	<20	<20
	Mar-24	2.9	<0.00050	<5.0	<10	<20	<20
	May-24	2.4	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	1.5	<0.0020	<5.0	<10	<20	<20
	Dec-24	1.52	<0.0050	<0.5	<1	<0.5	<1
GRW-5/ GBR-37	Jun-88	---	---	68	---	---	---
	Feb-21	5.7	0.0015	<1.0	<2.0	<4.0	<4.0
	Mar-24	6.9	<0.00050	<2.0	<4.0	<8.0	<8.0
	May-24	7.8	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	4.4	<0.0020	<2.0	<4.0	<8.0	<8.0
	Dec-24	5.59	<0.0050	<0.5	<1	<0.5	<1
GRW-6/GBR-44	Jun-88	---	---	10	---	---	---
	Jan-00	---	---	ND	---	---	---
	Jan-05	---	---	ND	---	---	---



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GRW-6/GBR-44	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	18	---	<1.0	<2.0	<4.0	<4.0
	Nov-19	5.9	---	<1.0	<2.0	<2.0	<2.0
	Feb-21	2.1	<0.00050	<1.0	<2.0	<2.0	<2.0
	Mar-24	2.7	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	3.9	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	2.7	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	3.63	<0.0050	<0.5	<1	<0.5	<1
GRW-9/GBR-6	Nov-86	---	---	70	---	---	---
	Dec-88	---	---	740	---	---	---
	Feb-21	0.53	<0.00050	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.53	<0.00050	<2.0	<4.0	<8.0	<8.0
	May-24	0.58	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Observed Sheen					
	Dec-24	0.664	<0.0050	<0.5	<2	<1.0	<2
GRW-10/GBR-36	Jun-88	---	---	15	---	---	---
	Feb-21	1.0	0.0015	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.57	<0.00050	<1.0	<2.0	<4.0	<4.0
	Jun-24	0.42	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.96	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.998	<0.0050	<0.5	<1	<0.5	<1
GRW-11/GBR-27	Jun-86	---	---	410	---	---	---
	Feb-21	2.4	0.0024	<1.0	<2.0	<4.0	<4.0
	Mar-24	1.6	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	1.1	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	1.40	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	1.06	<0.0050	<0.5	3.00	<1	<2
GRW-12/GBR-28	May-86	---	---	319	---	---	---
	Jun-88	---	---	1,060	---	---	---
	Feb-21	0.47	0.0012	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.18	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.20	<0.00050	<2.0	<4.0	<4.0	<4.0
	Sep-24	0.52	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.945	<0.0050	<0.5	<1	<0.5	<1
GRW-13/GBR-14	Nov-86	---	---	ND	---	---	---
	Dec-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Jan-00	---	---	ND	---	---	---
	Feb-21	1.1	0.00059	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.8	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.6	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.51	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.845	<0.0050	<0.5	<1	<0.5	<1



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-5*	Jun-86	---	---	530	---	---	---
	Feb-21	4.4	0.0063	<5.0	<10	<20	<20
	Mar-24	7.10	<0.00050	<2.0	<4.0	<8.0	<8.0
	May-24	6.50	<0.00050	<2.0	<4.0	<8.0	<8.0
	Sep-24	NS - Obstructed					
	Dec-24	6.21	<0.0050	<0.5	<1	<0.5	<1
GBR-7	Nov-86	---	---	21	---	---	---
	Jan-21	NS - PSH					
	Mar-24	2.3	<0.00050	<5.0	<10	<20	<20
	May-24	1.9	<0.0025	<1.0	2.2	<4.0	<4.0
	Sep-24	NS - PSH					
	Dec-24	1.89	0.0136	<0.5	<1	<0.5	<1
GBR-8	Oct-86	---	---	2,670	---	---	---
	Dec-88	---	---	570	---	---	---
	Aug-15	---	---	<5.0	---	---	---
	Feb-21	3.6	0.038	<1.0	<2.0	<4.0	<4.0
	Mar-24	3.80	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	3.80	<0.00050	<2.0	<4.0	<4.0	<4.0
	Sep-24	NS - Observed Sheen					
	Dec-24	3.81	0.0159	<0.5	<1	<0.5	<1
GBR-9	Nov-86	---	---	49	---	---	---
	Aug-88	---	---	ND	---	---	---
	Feb-21	0.43	0.00063	<1.0	<2.0	<4.0	<4.0
	Jan-25	Plugged and Abandoned					
GBR-10	Nov-86	---	---	9,500	---	---	---
	Jan-21 (Obstructed)	---	---	---	---	---	---
	Jan-25	Plugged and Abandoned					
GBR-11	Jun-86	---	---	4,600	---	---	---
	Aug-15	---	---	1.7	---	---	---
	Feb-21	0.93	0.0018	11	<10	<20	<20
	Mar-24	0.38	<0.00050	14	<4.0	<8.0	<8.0
	May-24	0.67	<0.00050	6.8	<2.0	<4.0	<4.0
	Sep-24	1.7	0.016	1.1 P2	<2.0	<4.0	<4.0
	Dec-24	2.65	<0.0050	2.00	<1	<0.5	<1
GBR-13*	Jun-86	---	---	1,300	---	---	---
	Dec-88	---	---	390	---	---	---
	Feb-21	4.7	0.0048	<1.0	<2.0	<2.0	<2.0
	Mar-24	5.90	<0.00050	<5.0	<10	<20	<20
	May-24	5.50	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	4.5	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	6.29	<0.0100	<0.5	<2	<1	<2



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-15	Oct-86	---	---	334	---	---	---
	Dec-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Jan-00	---	---	ND	---	---	---
	Feb-21	0.48	0.00067	<1.0	<2.0	<4.0	<4.0
	Jan-25	Plugged and Abandoned					
GBR-17	Jun-86	ND	ND	ND	---	---	---
	Dec-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Dec-00	---	---	ND	---	---	---
	Dec-05	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	<0.0020	---	<1.0	<2.0	<4.0	<4.0
	Nov-19	3.80	---	<1.0	<2.0	<2.0	<2.0
	Jan-21	0.014	0.00064	<1.0	<2.0	<4.0	<4.0
	Apr-21	0.015	<0.00050	---	---	---	---
	Oct-21	---	---	<1.0	<2.0	<4.0	<4.0
	Apr-22 (Obstructed)	---	---	---	---	---	---
	Sep-22 (Obstructed)	---	---	---	---	---	---
	Apr-23	0.073	0.0028	<1.0	---	---	---
	Oct-23	3.6	0.035	<1.0	---	---	---
	Mar-24	NS - Obstructed					
	May-24	0.0092	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	<0.0020	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	<0.0050	<0.0050	<0.5	<1	<0.5	<1
GBR-18*	Jun-86	ND	ND	50	---	---	---
	Jul-94	---	---	<0.5	---	---	---
	Mar-21	0.25	0.031	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.010	<0.0025	<1.0	<2.0	<4.0	<4.0
	May-24	0.092	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.016	0.001	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.0280	<0.0050	<0.5	<1	<0.5	<1
GBR-20*	Jun-86	---	---	4.0	---	---	---
	Aug-15	---	---	<2.0	---	---	---
	Feb-21	0.53	0.0034	14	<10	<20	<20
	Mar-24	0.57	<0.00050	<5.0	<10	<20	<20
	May-24	0.44	<0.00050	1.6	<2.0	<4.0	<4.0
	Sep-24	NS - Observed Sheen					
	Dec-24	0.282	<0.0100	3.00	<1	<0.5	<1
GBR-21S*	Jan-21 (Dry)	---	---	---	---	---	---
	Jan-25	Plugged and Abandoned					
GBR-21D*	May-88	---	---	ND	---	---	---
	Aug-15	---	---	<2.0	---	---	---



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-21D*	Feb-21	0.33	0.0022	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.15	<0.00050	<5.0	<10	<20	<20
	May-24	0.21	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Obstructed					
	Dec-24	0.341	<0.0100	<0.5	<1	<0.5	<1
GBR-22*	May-86	...	...	ND	...	...	...
	Aug-15	...	...	1.7	...	...	...
	Jan-21	NS - PSH					
	Mar-24	2.6	0.00076	<5.0	<10	<20	<20
	May-24	1.9	<0.0025	1.6	2.7	48	<4.0
	Sep-24	NS - PSH					
	Dec-24	1.70	<0.0100	1.00	<1	11	<1
GBR-23*	Jan-21 (Dry or Obstructed)	...	...	...	...	...	...
	Jan-25	Plugged and Abandoned					
GBR-24S*	Nov-86	43	ND	580	...	...	...
	Jan-21 (Obstructed)	...	...	...	...	...	...
	Jan-24	Plugged and Abandoned					
GBR-24D*	Nov-86	43	ND	230	...	...	...
	Jun-88	...	...	63	...	...	...
	Jan-95	...	...	0.60	...	...	...
	Jan-00	...	...	6.6	...	...	...
	Jan-05	...	...	0.60	...	...	...
	Jan-10	...	...	<1.0	<2.0	8.0	7.4
	Aug-15	1.8	...	<1.0	<2.0	<4.0	<4.0
	Nov-19	1.40	...	<1.0	<2.0	<2.0	<2.0
	Feb-21	0.92	0.0010	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.67	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.65	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.31	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.303	<0.0050	<0.5	<1	<0.5	<1
GBR-25*	May-86	...	...	ND	...	...	...
	Aug-15	...	...	<5.0	...	...	...
	Feb-21	2.7	0.028	<5.0	<10	<20	<20
	Mar-24	0.73	0.0031	<5.0	<10	<20	<20
	Sep-24	NS - Observed Sheen					
	Dec-24	0.666	<0.0050	<0.5	<1	<0.5	<1
GBR-26	Oct-86	...	...	5,280	...	...	...
	Aug-15	...	...	<2.0	...	...	...
	Jan-21 (No Recovery)	...	...	...	...	...	...
	Jan-25	Plugged and Abandoned					



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-30	Dec-86	2.2	ND	ND	---	---	---
	Jun-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Jan-00	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.50	---	<1.0	<2.0	<4.0	<4.0
	Nov-19	4.2	---	<1.0	<2.0	<2.0	<2.0
	Feb-21	0.75	0.015	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.27	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.23	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.0066	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.0024	<0.0050	<0.5	<1	<5	<1
GBR-31	Nov-86	---	---	ND	---	---	---
	Jun-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Jan-00	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.45	---	<1.0	<2.0	<4.0	<4.0
	Nov-19	2.7	---	<1.0	<2.0	<2.0	<2.0
	Jan-21	0.23	0.0056	<1.0	<2.0	<4.0	<4.0
	Mar-24	1.2	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	1.2	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	8.7	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	4.11	<0.0050	<0.5	<2	<1	<2
GBR-32*	Aug-88	---	---	ND	---	---	---
	Jan-95	---	---	0.80	---	---	---
	Dec-00	---	---	ND	---	---	---
	Dec-05	---	---	ND	---	---	---
	Jan 2010	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.56	<0.00050	<1.0	<2.0	<4.0	<4.0
	Nov-19	2.10	0.0012	<1.0	<2.0	<2.0	<2.0
	Jan-21	1.1	0.0011	<1.0	---	---	---
	Apr-21	2.0	0.0025	---	---	---	---
	Oct-21	---	---	<1.0	<2.0	<4.0	<4.0
	Apr-22	---	---	<1.0	<2.0	<4.0	<4.0
	Sep-22	---	<0.00050	<1.0	<2.0	<4.0	<4.0
	Apr-23	---	---	<1.0	<2.0	<4.0	<4.0
	Oct-23	0.88	<0.0010	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.88	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.24	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.38	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.219	<0.0050	<0.5	<2	<1	<2
GBR-33	Sep-89	---	---	ND	---	---	---
	Jan-21 (Dry or Obstructed)	---	---	---	---	---	---
	Jan-25	Plugged and Abandoned					



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-34	Aug-15	---	---	5.2	---	---	---
	Feb-21	2.1	0.0064	<1.0	<2.0	<4.0	<4.0
	Mar-24	2.3	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	2.4	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	1.80	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	1.58	<0.0050	<0.5	<1	<0.5	<1
GBR-35	Feb-21	1.8	0.032	<1.0	<2.0	<2.0	<2.0
	Mar-24	---	---	<5.0	21	290	<20
	May-24	0.86	<0.00050	<5.0	16	110	<4.0
	Sep-24	NS - Observed Sheen					
	Dec-24	6.43	<0.0050	1.00	<1	3.90	<1
GBR-39	Feb-21	0.19	0.0022	<1.0	<2.0	<4.0	<4.0
	Mar-24	<0.0020	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.080	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Obstructed					
	Dec-24	0.0109	<0.0050	<0.5	<1	<0.5	<1
GBR-40	Jun-88	---	---	ND	---	---	---
	Jan-21 (Dry)	---	---	---	---	---	---
	Jan-25	Plugged and Abandoned					
GBR-41	Jun-88	---	---	25	---	---	---
	Jan-21 (Dry)	---	---	---	---	---	---
	Jan-25	Plugged and Abandoned					
GBR-41R	Mar-24	2.6	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	3.1	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Obstructed					
	Dec-24	3.10	<0.0050	<0.5	<1	<0.5	<1
GBR-48	Nov-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Dec-00	---	---	ND	---	---	---
	Dec-05	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	6.40	0.11	<2.0	<4.0	<8.0	<8.0
	Nov-19	1.80	0.031	<1.0	<2.0	<2.0	<2.0
	Jan-21	0.67	0.016	<1.0	<2.0	<4.0	<4.0
	Apr-21	0.38	0.0082	---	---	---	---
	Oct-21	---	---	<1.0	<2.0	<2.0	<2.0
	Apr-22	---	---	<1.0	<2.0	<4.0	<4.0
	Sep-22	0.51	0.011	<1.0	<2.0	<4.0	<4.0
GBR-48	Apr-23	0.67	0.017	<1.0	<2.0	<4.0	<4.0
	Oct-23	0.75	0.019	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.0022	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.0034	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	<0.0020	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.0081	<0.0050	<0.5	<1	<0.5	<1



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-49	Nov-88	---	---	ND	---	---	---
	Jan-95	---	---	ND	---	---	---
	Dec-00	---	---	ND	---	---	---
	Dec-05	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.54	0.0038	<1.0	<2.0	<4.0	<4.0
	Nov-19	0.87	0.00083	<1.0	<2.0	<2.0	<2.0
	Jan-21 (Obstructed)	---	---	---	---	---	---
GBR-50	Nov-88	---	---	0.80	---	---	---
	Jan-95	---	---	ND	---	---	---
	Dec-00	---	---	ND	---	---	---
	Dec-05	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.19	0.0013	<1.0	<2.0	<4.0	<4.0
	Nov-19	0.14	0.0010	<1.0	<2.0	<2.0	<2.0
	Jan-21	0.16	0.0068	<1.0	<2.0	<4.0	<4.0
	Apr-21	0.02	<0.00050	---	---	---	---
	Oct-21	---	---	<1.0	<2.0	<2.0	<2.0
	Apr-22	---	---	<1.0	<2.0	<4.0	<4.0
	Sep-22	0.099	0.0015	<1.0	<2.0	<4.0	<4.0
	Apr-23	0.053	<0.0010	<1.0	---	---	---
	Oct-23	0.077	0.0013	<1.0	---	---	---
	Mar-24	0.038	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.030	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.041	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.130	<0.0050	<0.5	<1	<0.5	<1
GBR-52/GRW-8	Nov-88	---	---	0.80	---	---	---
	Jan-95	---	---	ND	---	---	---
	Jan-00	---	---	ND	---	---	---
	Jan-05	---	---	ND	---	---	---
	Jan-10	---	---	<1.0	<2.0	<4.0	<4.0
	Aug-15	0.15	---	<1.0	<2.0	<4.0	<4.0
	Nov-19	0.026	---	<1.0	<2.0	<2.0	<2.0
	Jan-21	0.0094	<0.00050	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.031	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.085	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.064	0.0011	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.0469	<0.0050	<0.5	<1	<0.5	<1



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
GBR-53	Mar-24	0.14	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.48	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.45	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.423	<0.0050	<0.5	<1	<0.5	<1
GBR-54	Mar-24	2.4	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	3.0	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	6.3	0.071	<1.0	<2.0	<4.0	<4.0
	Dec-24	2.15	<0.0050	<0.5	Sample Damaged during Shipping		
GBR-55	Mar-24	NS - PSH Present					
	May-24	NS - PSH Present					
	Sep-24	NS - PSH Present					
	Dec-24	NS - PSH Present					
GBR-56	Mar-24	0.30	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.064 F1 F2	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.019	<0.0020	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.239	<0.0050	<0.5	<1	<0.5	<1
GBR-57	Mar-24	0.59	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.74	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.80	0.0011	<1.1	<2.1	<4.0	<4.0
	Dec-24	0.605	<0.0050	<0.5	<2	<1	<2
GBR-58	Mar-24	0.17	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.45	<0.00050	<1.0	<2.0	<4.0	<4.0
	Sep-24	0.36	<0.00050	<1.0	<2.0	<4.0	<4.0
	Dec-24	0.329	<0.0050	<0.5	<1	<0.5	<1
GBR-59	Mar-24	0.27	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	0.29	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Obstructed					
	Dec-24	0.534	<0.0050	1.000	Sample Damaged during Shipping		
GBR-60	Mar-24	0.53	<0.00050	<1.0	<2.0	<4.0	<4.0
	May-24	1.00	<0.0025	<1.0	<2.0	<4.0	<4.0
	Sep-24	NS - Sheen Present					
	Dec-24	0.308	<0.0050	<0.5	<1	<0.5	<1
SHS-9	Aug-15	---	---	<5.0	---	---	---
	Jan-21	0.22	0.0032	<1.0	<2.0	<4.0	<4.0
	Mar-24	0.11	<0.00050	<1.0	<2.0	<4.0	<4.0
	Jun-24	0.16	<0.00050	<2.0	<4.0	<8.0	<8.0
	Sep-24	NS - Could Not Locate					
	Dec-24	NS - Could Not Locate					



TABLE 4 GROUNDWATER ANALYTICAL RESULTS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, LLC SAN JUAN COUNTY, NEW MEXICO							
Well ID	Sample Date	manganese	lead	benzene	naphthalene	1-methylnaphthalene	2-methylnaphthalene
Unit		mg/L	mg/L	µg/L	µg/L	µg/L	µg/L
NMWQCC Standard		0.2	0.015	5	combined 30		
Lee Acres Alluvial Aquifer Background Concentration (1)		0.0161 - 0.423	nd	NE	NE	NE	NE
Lee Acres Regional Background Concentration (1)		0 - 2.6	0 - 0.055	NE	NE	NE	NE
Lee Acres RI/ROD Remedial Goals (2)		0.346	0.050	NE	NE	NE	NE
GBR Background Concentrations (3)		5.28	NE	NE	NE	NE	NE
SHS-13	Jan-21	3.7	<0.00050	<1.0	<2.0	<4.0	<4.0
	Mar-24	5.5	<0.00050	<1.0	<2.0	<4.0	<4.0
	Jun-24	5.5	<0.00050	<2.0	<4.0	<8.0	<8.0
	Sep-24	NS - Obstructed					
	Dec-24	7.09	<0.0050	<0.5	<1	<0.5	<1

Notes:

(1) - "Background" Concentration Proposed in Lee Acres "DRAFT Remedial Investigation Report" Prepared for the US Bureau of Land Management (dated February 1992)

(2) - Contaminant Concentrations Established as the "Remedial Goals" or "Background" Concentrations for the Lee Acres Superfund Site. Based on the Lee Acres "DRAFT Remedial Investigation Report and Record of Decision" (dated May 2004).

(3) - Background Threshold Value Established for the Former Giant Bloomfield Refinery

* - asterisk indicates that the well is screened withing the bedrock aquifer, no asterisk indicates that a well is screened in the alluvial aquifer

--- - not analyzed

F1 - Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recovery exceeds control limits

F2 - MS/MSD Relative Percent Difference (RPD) exceeds control limits

µg/L - micrograms per liter

mg/L - milligrams per liter

ND - not detected, reporting limit unknown

NE - not established

NMWQCC - New Mexico Water Quality Control Commission

PSH - phase separated hydrocarbons

BOLD - bold and highlighted cells indicates concentration exceeds the greater of the applicable NMWQCC standard or GBR background concentration; where NMWQCC are not established, concentrations are compared to United States Environmental Protection Agency (EPA) regional screening levels



APPENDIX A

Borehole Logs



Client: MPC

BOREHOLE ID

Project Name:

GBR-41-R

Project Location: GBR

Project Manager: S. Hyde

Date: 1-23-24

Project No.:

Drilling Company: Enviro drill

Driller: Ryan

Drilling Equip: ASA rig

Logged By: Al Thomson

Borehole Diameter:

Casing Diameter: 2"

Well Materials: PVC

Surface Completion: stick-up monument

Drilling Method: hollow-stem

Ground Surface Elevation:

Top of Casing Elevation:

Latitude:

Longitude:

Total Depth: 53'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0								C
1								C
2							cuttings: Brown, fine sand	
3								
4								
5	4, 5, 7		0%					
6								
7								
8								
9								
10								
11	4, 4, 5		40%	0.6	moist		fine sand, brown, poorly graded no odor, no stain.	
12								
13								
14								
15	4, 6, 7		80%	1.0	moist		SAA	
16								
17								
18								
19							Brown, 3" clay layer at ~19'	
20	4, 4, 6		80%	1.0	slight		Majority med-course sand, some FeO ₃ No odor no stain	
21								
22								
23								
24								
25	5, 6, 7		80%		slight			

g r o u t



Client: MPC

Project Name:

Project Location: GBR

Project Manager: S. Hyde

BOREHOLE ID

GBR-41R

Date:

Project No.:

Drilling Company: Enviro drill

Driller:

Drilling Equip: HSA rig

Logged By: Al Thomson

Borehole Diameter:

Casing Diameter: 2"

Well Materials: PVC (15' screen)

Surface Completion: stick-up Monument

Drilling Method: HSA

Ground Surface Elevation:

Top of Casing Elevation:

Latitude:


Longitude:


Total Depth: 53'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION	
25								G	G
26		5, 6, 7	80%	2.9	Slight		Brown, med-coarse sand, minor fines some staining (red), no odor , slight odor		
27									
28									
29									
30		17, 50/4	60%	2490	Slight		Gray med-coarse sand, HC staining strong odor	G	G
31								B	B
32								B	B
33								B	B
34							clay layer between Gray sand and grayish brown SS. Immature SS minor staining		
35		17, 50/5	60%	208	Moist		Med-fine grain silty sandstone Hair-line coal seams [^] sandy siltstone		
36									
37									
38									
39									
40		38, 50/2	60%	180	moist		Brownish-yellow coarse sand, minor odor	S	S
41									
42									
43									
44							3" inches of gray stained C-sand		
45		50/4	40%	18	moist		Bottom is coarse brownish red slight odor		
46									
47									
48									
49									
50		50/4	10%	6	WET		gray stained coarse sand WET		



51

3 of 3

					Client: GBR Project Name: GBR Project Location: Project Manager:		BORING LOG NUMBER BH 53 Project No.:	
Date Sampled: 3-11 Drilled By: Envirochill Driller: Jun Logged By: ZM					Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Borehole Diameter: 2" Casing Diameter: Well Materials: Surface Completion: Boring Method:	
DEPTH (FEET)	SAMPLE INTERVAL	BLOW COUNT	RECOVERY (%)	FID/PID READING (PPM)	USCS SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10	X BH53 e10		10%	1.5	SM	silty sand, tan-brown loose/dry, NS/NO fragments of gravel		
11								
12								
13								
14	X BH53 e15		10%	3.1	SM	silty sand, tan-brown loose/dry, NS/NO fragments of gravel		
15								
16								
17								
18								
19	X BH53 e20		10%	2.7	SM	silty sand, tan-brown loose/dry, NS/NO fragments of gravel		
20								
21								
22								
23								
24								
25								

					Client: Project Name: Project Location: Project Manager:		BORING LOG NUMBER BH53 Project No.:	
Date Sampled: Drilled By: Driller: Logged By:					Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Borehole Diameter: Casing Diameter: Well Materials: Surface Completion: Boring Method:	
DEPTH (FEET)	SAMPLE INTERVAL	BLOW COUNT	RECOVERY (%)	FTD/PTD READING (PPH)	USCS SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
25	X BH53 @25	10%	9.8	SM	silty sand, tan-brown, loose/dry, NS/WO, gravel fragments			
26								
27	X BH53 @30	10%	2.9	SM	silty sand, tan-brown, loose/dry, NS/WO, gravel fragments			
28								
29	X BH53 @35	10%	2.5	SM	silty sand, tan-brown, hard loose/dry, NS/WO			
30								
31	X BH53 @40	10%	0.2	SM	silty sand, grey, hard NS/WO, loose/dry			
32								
33	X BH53 @45	10%	5.5	SW-SM	Pr-cs sand w/ pit, grey, hard NS/WO, loose/dry			
34								
35	X BH53 @50				hard drilling			
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								

bentonite
water

					Client: Project Name: Project Location: Project Manager:		BORING LOG NUMBER BH53	
Date Sampled: Drilled By: Driller: Logged By:					Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Project No.: Borehole Diameter: Casing Diameter: Well Materials: Surface Completion: Boring Method:	
DEPTH (FEET)	SAMPLE INTERVAL	BLOW COUNT	RECOVERY (%)	FTD/PTD READING (PPM)	USCS SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
50	X BH53 @ 50		10%	10.9	SW-SM	med-cs sand w/ silt, grey, hard wet, NS/NO		
51								
52	X BH53 @ 55		10%	3.6	SP-SM	hard drilling cs sand w/ silt, grey, hard NS/NO, moist		
53								
54								
55	X BH53 @ 60		10%	1.9	SW-SM	hard drilling fine med sand w/ silt, grey, hard loose/dry, NS/NO		
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								


DEPTH (FEET)		SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION	
0								First 5' hydrovacued, sand and cobbles.	C	C
1									G	G
2										
3										
4										
5										
6										
7										
8										
9										
10										
11								Light brown sand, fine, poorly graded		
12								No stain or odor		
13										
14										
15								15-16': Very fine, light brown sand		
16								16-17: Dark brown, clayey silt, some calcite		
17								Both: No stain or odor		
18										
19										
20										
21								Dark brown, clayey silt, some FeO ₃		
22								No odor or stain		
23										
24										
25										





Client:		BOREHOLE ID GBR-54
Project Name:		
Project Location:		
Project Manager:		Date:
Borehole Diameter:		Ground Surface Elevation:
Casing Diameter:		Top of Casing Elevation:
Well Materials:		Latitude:
Surface Completion:		Longitude:
Drilling Method:		Total Depth: 53'

Project No.:
Drilling Company:
Driller:
Drilling Equip:
Logged By:


DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION	
25								G	G
26									
27									
28									
29									
30									
31									
32									
33									
34								G	G
35								B	B
36									
37								B	B
38									
39									
40									
41								S	S
42									
43									
44									
45									
46									
47									
48									
49									
50									



			Client: _____ Project Name: _____ Project Location: _____ Project Manager: _____			BORING LOG NUMBER GBR-54 Project No. _____		
Date Sampled: _____ Drilled by: _____ Driller: _____ Logged by: _____ Sampler: _____			Ground Surface Elevation: _____ Top of Casing Elevation: _____ North Coordinate: _____ West Coordinate: _____ Bench Mark Elevation: _____ <input type="checkbox"/> At Completion <input checked="" type="checkbox"/> At Well Stabilization			Borehole Diameter: _____ Casing Diameter: _____ Well Materials: _____ Surface Completion: _____ Boring Method: _____		
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING / WELL COMPLETION (GRAPHIC DEPICTION)
50	X		15	2.5			50/4 (blows) med/ light gray coarse sand lenses of clay, No odor	
52	X		20	0.8			WET $\frac{1}{2}$ light gray med-coarse sand, some gravel	
53	X							
55	X							
10								
15								
20								
25								


					Client: MPC Project Name: Project Location: Project Manager:		BORING LOG NUMBER BH55 Project No.:	
Date Sampled: 3-12-24 Drilled By: Driller: Juan/Ennoch II Logged By: Zm					Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Borehole Diameter: 2" Casing Diameter: Well Materials: Surface Completion: Boring Method:	
DEPTH (FEET)	SAMPLE INTERVAL	RECOVERY (%)	FID/PTD READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
0								
1								
2						no recovery, lost drilling		
3								
4								
5								
6								
7								
8								
9								
10		5%	3.1		SM	fn-cs silty sand, brown, poorly sorted, NS-NO, rare pebble	ben to, je	
11								
12						easy drilling		
13								
14								
15		5%	2.9		SM	fn-cs silty sand, tan brown, poorly sorted, NS-NO, w/ fragments of pebble		
16								
17						easy drilling		
18								
19								
20		5%	4.6		SM	fn-cs silty sand, tan brown, poorly sorted, NS-NO, w/ pebble fragments		
21								
22						easy drilling		
23								
24								
25								


						Client: Project Name: Project Location: Project Manager:		BORING LOG NUMBER BH55	
Date Sampled: Drilled By: Driller: Logged By:						Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Project No.: Borehole Diameter: Casing Diameter: Well Materials: Surface Completion: Boring Method:	
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FIDP/D READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
25	△	BH55 @25		11.5		SM	fin-cs silty sand w/ rare pebble, tan-brown poorly sorted, NS-NO		
26									
27									
28									
29	△	BH55 @30		5.1		SM	fin-cs silty sand w/ rare pebble tan-brown fragments of cobbles, poorly sorted NS-NO		
30									
31									
32							hard drilling ↓		
33									
34	X	BH55 @35		117		SM	fin-cs silty sand w/ gravel, grey poorly sorted, NS-slight pebbly odor		
35									
36									
37									
38									
39	△	BH55 @40		102		SM	water @ 39 fin-cs silty sand w/ gravel, brown-grey poorly sorted, moist compressed air blowout heavily contaminated PSH water at end of 5' cycle		
40									
41									
42									
43									
44	△	BH55 @45		265		SM	fin-cs silty sand w/ gravel, brown-grey poorly sorted, moist		
45									
46							hard drilling		
47									
48									
49	△	BH55 @49		315		SM	fin-cs silty sand w/ gravel, grey, poorly sorted TD 49 NS-strong odor, moist		
50									

drill stem too gummed up to continue

					Client: GBR		BORING LOG NUMBER	
					Project Name: GBR		BH56	
Date Sampled: 3-12-24					Project Location:		Project No.:	
Drilled By: EnviroDrill					Ground Surface Elevation:		Borehole Diameter: 2"	
Driller: Jan					Top of Casing Elevation:		Casing Diameter:	
Logged By: Zm					North Coordinate:		Well Materials:	
					West Coordinate:		Surface Completion:	
							Boring Method:	
DEPTH (FEET)	SAMPLE INTERVAL	BLOW COUNT	RECOVERY (%)	FID/PID READING (PPM)	USCS SYMBOL	GEOLOGIC DESCRIPTION		BORING/WELL COMPLETION
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15	<input checked="" type="checkbox"/> BH56 @ 15		10%	2.4	SM	Pn-cs silty sand w/ gravel fragments, tan-brn loose/dry, NS/NO		
16								
17						hard drilling @ 17'		
18								
19								
20	<input checked="" type="checkbox"/> BH56 @ 20		10%	1.9	SM	Pn-cs silty sand w/ gravel fragments, tan-brn loose/dry, NS/NO		
21								
22						hard drilling dark grey @ 22'		
23								
24								
25	<input checked="" type="checkbox"/> BH56 @ 25		10%	68.7	SM	silty sand, grey loose/dry, NS/NO		


					Client:		BORING LOG NUMBER	
					Project Name:		BHS6	
Date Sampled: Drilled By: Driller: Logged By:					Project Location:		Project No.:	
					Project Manager:			
Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:					Borehole Diameter:		Casing Diameter:	
					Well Materials:		Surface Completion:	
					Boring Method:			
DEPTH (FEET)	SAMPLE INTERVAL	BLOW COUNT	RECOVERY (%)	FID/PTD READING (PPM)	USCS SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
25						hard drilling		
26								
27								
28								
29	BHS6 @30		10%	11.7	SM	silty sand, grey loose/dry, NS/WO		
30								
31						hard drilling		
32								
33								
34	BHS6 @35		10%	3.1	SM	silty sand, grey loose/dry, NS/WO		
35								
36						hard drilling		
37								
38								
39	BHS6 @40		10%	1.9	SM	silty sand, tan brown loose/dry, NS/WO		
40								
41						hard drilling		
42								
43						water @ 43'		
44	BHS6 @45		10%	2.4	SM	silty sand, tan brown, wet loose/dry , NS/WO		
45								
46						hard drilling		
47								
48								
49	BHS6 @50		10%	1.2	SM	silty sand, grey, moist loose/dry , NS/WO		
50								


					Client:		BORING LOG NUMBER	
					Project Name:		BH56	
Date Sampled: Drilled By: Driller: Logged By:					Project Location:		Project No.:	
					Project Manager:			
Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:					Borehole Diameter:		Casing Diameter:	
					Well Materials:		Surface Completion:	
					Boring Method:			
DEPTH (FEET)	SAMPLE INTERVAL	BLOW COUNT	RECOVERY (%)	FTD/PTD READING (PPM)	USCS SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
50								
51								
52	X BH56							
53	CS3		10%	1.0	SM	silty sand w/ gravel, grey loose/dry NS/NO		
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								


		Client: <u>MPC</u> Project Name: <u>GBR</u> Project Location: <u>GBR</u> Project Manager: <u>Stuart Hyde</u>		BORING LOG NUMBER <u>GBR 57</u>					
Date Sampled: <u>3-14-24</u> Drilled By: <u>EnviroDrill</u> Driller: <u>Juan</u> Logged By: <u>ZM</u>		Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Project No.: Borehole Diameter: <u>4"</u> Casing Diameter: <u>2"</u> Well Materials: <u>PVC</u> Surface Completion: <u>monument</u> Boring Method: <u>ODEX</u>					
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
0									
1									
2							No Recovery		
3									
4									
5									
6									
7							Easy drilling		
8									
9									
10	X	GBR57 @10		22.2			fn silty sand, brown, poorly sorted loose, dry, NS-NO		
11							Easy drilling		
12									
13									
14	X	" @15		26.9			SAA, some chunks of quartzite from cobbles		
15									
16							Easy drilling		
17									
18									
19	X	" @20		33.3			SAA		
20									
21							Easy drilling	G	G
22									
23									
24	X	" 25		28.9			SAA		
25									

1 of 2

ENSOLUM		Client: <i>MPG</i> Project Name: <i>GBR</i> Project Location: <i>GBR</i> Project Manager: <i>S. Hyde</i>		BORING LOG NUMBER <i>GBR 57</i>					
Date Sampled: <i>3-14-24</i> Drilled By: <i>EnviroDrill</i> Driller: <i>Juan</i> Logged By: <i>AT</i>		Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Project No.: Borehole Diameter: <i>4 in</i> Casing Diameter: <i>2 in</i> Well Materials: <i>PVC</i> Surface Completion: <i>monument</i> Boring Method: <i>ODEX</i>					
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
25							Easy-ish drilling		
26									
27									
28									
29							Brown, med-cs sand, Poorly sorted	G	G
30	X	@30		27.3			Moist, NS-NO		
31							Hard drilling		
32									
33								B	B
34							Greenish brown, fn-cs sand, poorly sorted, dry		
35	X	@35		45.2			NS-SO		
36							very hard drilling		
37									
38									
39							Gray, fn-cs sand, Poorly sorted		
40	X	@40		56.4			angular, dry NO-NS		
41							V hard drilling		
42									
43								S	S
44							Tan-gray, fn-cs silty sand, Poorly sorted, some gravel-size chunks		
45	X	@45		27.3			of siltstone, angular, dry NS-NO		
46									
47									
48									
49	X	@50		6.9			SAA, slightly moist		
50									

			Client: <u>MPC</u> Project Name: <u>GBR</u> Project Location: <u>GBR</u> Project Manager: <u>S. Hyde</u>			BORING LOG NUMBER <u>BH58/GBR58</u> Project No.:		
Date Sampled: <u>3-13-14</u> Drilled By: <u>Envirodrill</u> Driller: <u>Juan</u> Logged By: <u>ZM/AT</u>			Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:			Borehole Diameter: <u>4"</u> Casing Diameter: <u>2"</u> Well Materials: <u>PVC</u> Surface Completion: <u>Monument</u> Boring Method: <u>ODEX</u>		
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15	X	BH58 P15		2.5			fin silty sand, brown, poorly sorted brown, loose, dry, NS-NU	
16								
17								
18								
19								
20	X	BH58 P20		1.7			fin. med silty sand, brown, poorly sorted loose, dry, NS-NU	G
21								
22								
23								
24								
25	X	BH58 P25		7.3			fin. med silty sand, brown, poorly sorted loose, dry, NS-NU	G

							Client: <u>MPC</u> Project Name: <u>GBR</u> Project Location: <u>GBR</u> Project Manager: <u>S-Hyde</u>		BORING LOG NUMBER <u>GBR-58</u> Project No.:	
Date Sampled: <u>3-13/3-14-24</u> Drilled By: <u>Ehvirodrill</u> Driller: <u>Juan</u> Logged By: <u>ZM/AT</u>							Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Borehole Diameter: <u>4"</u> Casing Diameter: <u>2"</u> Well Materials: <u>PVC</u> Surface Completion: <u>monument</u> Boring Method: <u>ODEX</u>	
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION		
25										
26							easy drilling			
27										
28		1525								
29	X	BH58 @30		6.2			SAN			
30										
31							easy drilling			
32								G	G	
33		1533								
34	X	BH58 @35		3.4			fin-cs silty sand w/ gravel, grey-tan poorly sorted, NS-NO	B	B	
35										
36							hard drilling			
37									37'	
38		1545								
39	X	BH58 @40		20.1			fin-cs silty sand, grey-tan poorly sorted, NS-NO			
40										
41										
42										
43										
44							fin-cs silty sand grey-tan poorly sorted, NS-NO	S	S	
45	X	@45		1.6						
46							Hard drilling			
47										
48										
49	X	@50		6.9			fin-cs silty sand, gray poorly sorted, angular (pulverized) Probably sandstone, NS-NO			
50										

 ENSOLUM							Client: <u>MPC</u> Project Name: <u>GBR</u> Project Location: <u>GBR</u> Project Manager: <u>S. Hyde</u>		BORING LOG NUMBER <u>GBR-58</u>	
Date Sampled: <u>3-14</u> Drilled By: <u>EnviroDrill</u> Driller: <u>Juan</u> Logged By: <u>AT</u>							Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Project No.: Borehole Diameter: <u>4"</u> Casing Diameter: <u>2"</u> Well Materials: <u>PVC</u> Surface Completion: <u>monument</u> Boring Method: <u>ODEX</u>	
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METERIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION		
50							Hard drilling			
51										
52										
53										
54	X	GBR58 @ 54		140.2			fin-cs silty sand, gray poorly sorted, angular NS-NO		52	
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										



Client: MPC
 Project Name: GBR
 Project Location: GBR
 Project Manager: S. Hyde

BOREHOLE ID

GBR-59

Date: 3-19-24

Project No.: GBR
 Drilling Company: EnviroDrill
 Driller: Juan
 Drilling Equip: ODEX
 Logged By: AT

Borehole Diameter: 4"
 Casing Diameter: 2"
 Well Materials: PVC
 Surface Completion: Monument
 Drilling Method: ODEX

Ground Surface Elevation:
 Top of Casing Elevation:
 Latitude:
 Longitude:
 Total Depth: 47'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
0								
1								
2							No recovery	
3								
4								
5							Easy drilling	
6								
7								
8								
9								
10								
11								
12								
13								
14	X			12.8			Brown vf-m, ^{sand} some few coarse, well graded slightly moist. NO-NS	
15	X							
16							Easy drilling first 3 ft	G
17							Hard drilling 18-20 ft	G
18	X							
19	X			21.8			SAA, some silt/clay, some gravel- sized angular quartzite	
20	X							
21							Medium drilling	
22								
23	X							
24	X			51.2			Brownish-gray clay/siltstone, vf-g fragments slightly moist, NO-NS	
25	X							



Client: MPC

Project Name: GBR

Project Location: GBR

Project Manager: S. Hyde

BOREHOLE ID

GBR-S9

Date: 3-19-24

Project No.:

Drilling Company: Enviro drill

Driller: Juan

Drilling Equip: ODEX

Logged By: AT

Borehole Diameter: 4"

Casing Diameter: 2"

Well Materials: PVC

Surface Completion: Monument

Drilling Method: ODEX

Ground Surface Elevation:

Top of Casing Elevation:


Latitude:

Longitude:

Total Depth: 47'

DEPTH (FEET)	SAMPLE INTERVAL	SPT BLOW COUNT	RECOVERY (%)	PID (PPM)	MOISTURE	USCS	GEOLOGIC DESCRIPTION	WELL COMPLETION
25							Hard drilling	
26								G
27								G
28								
29	X						Tan/gray, clay/siltstone, vf-c fragments, dry, no slight odor, No stain	B
30				173.5				B
31							Hard drilling	
32								S
33								S
34	X						Brown w/ some gray stain sand, fn-CS, rounded, well graded, slight odor	
35				37.5				
36							Hard drilling	
37								S
38								
39	X						SAA, less staining/odor	
40				33.7				S
41							Hard drilling	
42								
43								
44	X						Gray, fn-CS sand (likely crushed SS) well graded, angular, dry NO- is	
45				17.4				
46	X						SAA	
47				16.9				
48								
49								
50								

ENSOLUM		Client: <u>MPC</u> Project Name: <u>GBR</u> Project Location: Project Manager: <u>Stuart Hyde</u>		BORING LOG NUMBER <u>GBR-60</u> Project No.:					
Date Sampled: <u>3-18-24</u> Drilled By: <u>San Virodrin</u> Driller: <u>Juan</u> Logged By: <u>AT</u>		Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Borehole Diameter: <u>4"</u> Casing Diameter: <u>2"</u> Well Materials: <u>PVC</u> Surface Completion: Boring Method: <u>ODEX</u>					
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION	
0									
1									
2							No recovery		
3									
4									
5									
6									
7							Easy drilling		
8									
9									
10									
11									
12									
13							Brown, fn-CS sand, some gravel-size chunks of quartzite, angular, NO-NS, well graded		
14	X	GBR-60 @ 15'		14.6					
15									
16							Easy drilling		
17									
18	X	" @ 20'		11.7			SAA, some silt/clay		
19									
20									
21							Medium drilling		
22								G	G
23									
24	X	" @ 25'		11.2			SAA, some fat clay		
25									

 ENSOLUM							Client: <u>MPL</u> Project Name: <u>GBR</u> Project Location: <u>GBR</u> Project Manager: <u>S. Hyde</u>		BORING LOG NUMBER <u>GBR 60</u> Project No.:	
Date Sampled: <u>3-18-24</u> Drilled By: <u>EnviroDrill</u> Driller: <u>Juan</u> Logged By: <u>AT</u>							Ground Surface Elevation: Top of Casing Elevation: North Coordinate: West Coordinate:		Borehole Diameter: <u>4"</u> Casing Diameter: <u>2"</u> Well Materials: <u>PVC</u> Surface Completion: <u>Monument</u> Boring Method: <u>ODEX</u>	
DEPTH (FEET)	SAMPLE INTERVAL	SAMPLE NAME	RECOVERY (%)	FID/PID READING (PPM)	POTENTIAL METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING/WELL COMPLETION		
25							Medium drilling			
26								G	G	
27										
28							reddish brown, fn-CS sand,			
29	X @ 30			40.8			angular, well graded, some	B	B	
30							chunks of cobbles, No-NS			
31							Hard drilling			
32									32	
33							Blueish-grey, HC-strained, fn-CS			
34	X @ 35			275.6			sand, well graded, strong odor			
35										
36							Hard Drilling		S	
37										
38								S		
39	X @ 40			25.6			Brownish-grey, vf-CS sand,			
40							well graded, angular, so-ss			
41							Very hard drilling			
42										
43							grey, fn-CS sand (likely crushed ss)			
44	X @ 45			6.9			well graded, angular, No-NS			
45							SAA			
46	X @ 47			4.2			SAA, moist			
47										
48										
49										
50										



APPENDIX B

Soil Laboratory Analytical Reports

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported:

CLIENT: ENSOLUM
Project: Giant Bloomfield Refinery
Lab ID: 2401A17-001

Client Sample ID: GBR-41R@24-26'
Collection Date: 1/23/2024 12:30:00 PM
Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	91	9.4		mg/Kg	1	1/29/2024 4:14:54 PM	80109
Motor Oil Range Organics (MRO)	49	47		mg/Kg	1	1/29/2024 4:14:54 PM	80109
Surr: DNOP	79.7	69-147		%Rec	1	1/29/2024 4:14:54 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Surr: BFB	99.3	15-244		%Rec	1	1/27/2024 9:22:34 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Toluene	ND	0.048		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Surr: 4-Bromofluorobenzene	90.6	39.1-146		%Rec	1	1/27/2024 9:22:34 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported:

CLIENT: ENSOLUM
Project: Giant Bloomfield Refinery
Lab ID: 2401A17-002

Client Sample ID: GBR-41R@29-31'
Collection Date: 1/23/2024 12:40:00 PM
Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	1100	94		mg/Kg	10	1/30/2024 11:55:07 AM	80109
Motor Oil Range Organics (MRO)	ND	470		mg/Kg	10	1/30/2024 11:55:07 AM	80109
Surr: DNOP	86.0	69-147		%Rec	10	1/30/2024 11:55:07 AM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	200	23		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Surr: BFB	536	15-244	S	%Rec	5	1/29/2024 10:55:40 PM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.11		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Toluene	ND	0.23		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Ethylbenzene	0.29	0.23		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Xylenes, Total	0.70	0.46		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	5	1/29/2024 10:55:40 PM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported:

CLIENT: ENSOLUM
Project: Giant Bloomfield Refinery
Lab ID: 2401A17-003

Client Sample ID: GBR-41R@34-36'
Collection Date: 1/23/2024 12:50:00 PM
Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	61	9.0		mg/Kg	1	1/29/2024 4:39:22 PM	80109
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/29/2024 4:39:22 PM	80109
Surr: DNOP	85.7	69-147		%Rec	1	1/29/2024 4:39:22 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	11	4.8		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Surr: BFB	279	15-244	S	%Rec	1	1/27/2024 10:10:04 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Toluene	ND	0.048		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Xylenes, Total	ND	0.097		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Surr: 4-Bromofluorobenzene	91.8	39.1-146		%Rec	1	1/27/2024 10:10:04 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported:

CLIENT: ENSOLUM
Project: Giant Bloomfield Refinery
Lab ID: 2401A17-004

Client Sample ID: GBR-41R@39-41'
Collection Date: 1/23/2024 1:00:00 PM
Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/29/2024 4:51:34 PM	80109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/29/2024 4:51:34 PM	80109
Surr: DNOP	88.5	69-147		%Rec	1	1/29/2024 4:51:34 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Surr: BFB	103	15-244		%Rec	1	1/27/2024 10:33:33 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Toluene	ND	0.048		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Xylenes, Total	ND	0.095		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Surr: 4-Bromofluorobenzene	90.0	39.1-146		%Rec	1	1/27/2024 10:33:33 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401A17

Date Reported:

CLIENT: ENSOLUM Client Sample ID: GBR-41R@44-46'
Project: Giant Bloomfield Refinery Collection Date: 1/23/2024 3:10:00 AM
Lab ID: 2401A17-005 Matrix: SOIL Received Date: 1/25/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/29/2024 5:03:45 PM	80109
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/29/2024 5:03:45 PM	80109
Surr: DNOP	82.8	69-147		%Rec	1	1/29/2024 5:03:45 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Surr: BFB	102	15-244		%Rec	1	1/27/2024 10:57:13 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Toluene	ND	0.046		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Ethylbenzene	ND	0.046		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Xylenes, Total	ND	0.091		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Surr: 4-Bromofluorobenzene	92.2	39.1-146		%Rec	1	1/27/2024 10:57:13 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401A17

Date Reported:

CLIENT: ENSOLUM
Project: Giant Bloomfield Refinery
Lab ID: 2401A17-011

Client Sample ID: GBR-54@40-42'
Collection Date: 1/24/2024 11:10:00 AM
Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	1/29/2024 5:15:52 PM	80109
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/29/2024 5:15:52 PM	80109
Surr: DNOP	82.2	69-147		%Rec	1	1/29/2024 5:15:52 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/27/2024 11:20:47 AM	80099
Surr: BFB	97.6	15-244		%Rec	1	1/27/2024 11:20:47 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 11:20:47 AM	80099
Toluene	ND	0.049		mg/Kg	1	1/27/2024 11:20:47 AM	80099
Ethylbenzene	ND	0.049		mg/Kg	1	1/27/2024 11:20:47 AM	80099
Xylenes, Total	ND	0.097		mg/Kg	1	1/27/2024 11:20:47 AM	80099
Surr: 4-Bromofluorobenzene	89.5	39.1-146		%Rec	1	1/27/2024 11:20:47 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2401A17

Date Reported:

CLIENT: ENSOLUM

Project: Giant Bloomfield Refinery

Lab ID: 2401A17-012

Client Sample ID: GBR-54@45-47'

Collection Date: 1/24/2024 11:20:00 AM

Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	1/29/2024 5:08:43 PM	80147
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	1/29/2024 5:08:43 PM	80147
Surr: DNOP	95.1	69-147		%Rec	1	1/29/2024 5:08:43 PM	80147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Surr: BFB	98.8	15-244		%Rec	1	1/30/2024 5:17:48 PM	80143
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Toluene	ND	0.046		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Ethylbenzene	ND	0.046		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Xylenes, Total	ND	0.093		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Surr: 4-Bromofluorobenzene	89.5	39.1-146		%Rec	1	1/30/2024 5:17:48 PM	80143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 3/25/2024 4:20:50 PM

JOB DESCRIPTION

GBR Soils

JOB NUMBER

885-1272-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
3/25/2024 4:20:50 PM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: GBR Soils

Laboratory Job ID: 885-1272-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
␣	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: GBR Soils

Job ID: 885-1272-1

Job ID: 885-1272-1Eurofins Albuquerque

Job Narrative
885-1272-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/15/2024 7:22 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Client Sample ID: GBR58@40

Lab Sample ID: 885-1272-1

Date Collected: 03/13/24 15:45

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/15/24 15:58	03/19/24 23:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 244			03/15/24 15:58	03/19/24 23:13	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/15/24 15:58	03/19/24 23:13	1
Ethylbenzene	ND		0.050	mg/Kg		03/15/24 15:58	03/19/24 23:13	1
Toluene	ND		0.050	mg/Kg		03/15/24 15:58	03/19/24 23:13	1
Xylenes, Total	ND		0.099	mg/Kg		03/15/24 15:58	03/19/24 23:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		39 - 146			03/15/24 15:58	03/19/24 23:13	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	200		9.1	mg/Kg		03/19/24 09:41	03/19/24 16:15	1
Motor Oil Range Organics [C28-C40]	130		45	mg/Kg		03/19/24 09:41	03/19/24 16:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			03/19/24 09:41	03/19/24 16:15	1

Client Sample ID: GBR58@54

Lab Sample ID: 885-1272-2

Date Collected: 03/14/24 10:10

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		03/15/24 15:58	03/20/24 00:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		15 - 244			03/15/24 15:58	03/20/24 00:23	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/15/24 15:58	03/20/24 00:23	1
Ethylbenzene	ND		0.047	mg/Kg		03/15/24 15:58	03/20/24 00:23	1
Toluene	ND		0.047	mg/Kg		03/15/24 15:58	03/20/24 00:23	1
Xylenes, Total	ND		0.095	mg/Kg		03/15/24 15:58	03/20/24 00:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		39 - 146			03/15/24 15:58	03/20/24 00:23	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	160		9.2	mg/Kg		03/19/24 09:41	03/19/24 16:27	1
Motor Oil Range Organics [C28-C40]	71		46	mg/Kg		03/19/24 09:41	03/19/24 16:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			03/19/24 09:41	03/19/24 16:27	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Client Sample ID: GBR57@40

Lab Sample ID: 885-1272-3

Date Collected: 03/14/24 14:20

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/15/24 15:58	03/20/24 01:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 244			03/15/24 15:58	03/20/24 01:34	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/15/24 15:58	03/20/24 01:34	1
Ethylbenzene	ND		0.050	mg/Kg		03/15/24 15:58	03/20/24 01:34	1
Toluene	ND		0.050	mg/Kg		03/15/24 15:58	03/20/24 01:34	1
Xylenes, Total	ND		0.099	mg/Kg		03/15/24 15:58	03/20/24 01:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/15/24 15:58	03/20/24 01:34	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	77		9.8	mg/Kg		03/19/24 09:41	03/19/24 16:40	1
Motor Oil Range Organics [C28-C40]	72		49	mg/Kg		03/19/24 09:41	03/19/24 16:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			03/19/24 09:41	03/19/24 16:40	1

Client Sample ID: GBR57@50

Lab Sample ID: 885-1272-4

Date Collected: 03/14/24 15:00

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		03/15/24 15:58	03/20/24 01:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 244			03/15/24 15:58	03/20/24 01:57	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/15/24 15:58	03/20/24 01:57	1
Ethylbenzene	ND		0.048	mg/Kg		03/15/24 15:58	03/20/24 01:57	1
Toluene	ND		0.048	mg/Kg		03/15/24 15:58	03/20/24 01:57	1
Xylenes, Total	ND		0.096	mg/Kg		03/15/24 15:58	03/20/24 01:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		39 - 146			03/15/24 15:58	03/20/24 01:57	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	190		9.3	mg/Kg		03/19/24 09:41	03/19/24 16:52	1
Motor Oil Range Organics [C28-C40]	170		47	mg/Kg		03/19/24 09:41	03/19/24 16:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	114		62 - 134			03/19/24 09:41	03/19/24 16:52	1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-1812/1-A

Matrix: Solid

Analysis Batch: 2106

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1812

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			03/15/24 15:58	03/19/24 09:57	1

Lab Sample ID: LCS 885-1812/2-A

Matrix: Solid

Analysis Batch: 2106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	20.4		mg/Kg		82	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	197		15 - 244				

Lab Sample ID: 885-1272-1 MS

Matrix: Solid

Analysis Batch: 2106

Client Sample ID: GBR58@40

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.7	21.9		mg/Kg		89	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	214		15 - 244						

Lab Sample ID: 885-1272-1 MSD

Matrix: Solid

Analysis Batch: 2106

Client Sample ID: GBR58@40

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.7	20.6		mg/Kg		83	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	190		15 - 244								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-1812/1-A

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1812

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Ethylbenzene	ND		0.050	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Toluene	ND		0.050	mg/Kg		03/15/24 15:58	03/19/24 09:57	1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-1812/1-A

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1812

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		39 - 146			03/15/24 15:58	03/19/24 09:57	1

Lab Sample ID: LCS 885-1812/3-A

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.882		mg/Kg		88	70 - 130
Ethylbenzene	1.00	0.903		mg/Kg		90	70 - 130
m,p-Xylene	2.00	1.83		mg/Kg		92	70 - 130
o-Xylene	1.00	0.896		mg/Kg		90	70 - 130
Toluene	1.00	0.894		mg/Kg		89	70 - 130
Xylenes, Total	3.00	2.73		mg/Kg		91	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	96		39 - 146				

Lab Sample ID: 885-1272-2 MS

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: GBR58@54

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.944	0.792		mg/Kg		84	70 - 130
Ethylbenzene	ND		0.944	0.858		mg/Kg		91	70 - 130
m,p-Xylene	ND		1.89	1.74		mg/Kg		91	70 - 130
o-Xylene	ND		0.944	0.854		mg/Kg		90	70 - 130
Toluene	ND		0.944	0.840		mg/Kg		89	70 - 130
Xylenes, Total	ND		2.83	2.59		mg/Kg		91	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	95		39 - 146						

Lab Sample ID: 885-1272-2 MSD

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: GBR58@54

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		0.948	0.783		mg/Kg		83	70 - 130	1	20
Ethylbenzene	ND		0.948	0.836		mg/Kg		88	70 - 130	3	20
m,p-Xylene	ND		1.90	1.69		mg/Kg		88	70 - 130	3	20
o-Xylene	ND		0.948	0.832		mg/Kg		88	70 - 130	3	20
Toluene	ND		0.948	0.818		mg/Kg		86	70 - 130	3	20
Xylenes, Total	ND		2.84	2.53		mg/Kg		88	70 - 130	3	20

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-1272-2 MSD

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: GBR58@54

Prep Type: Total/NA

Prep Batch: 1812

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		39 - 146

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-1913/1-A

Matrix: Solid

Analysis Batch: 1993

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1913

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		03/19/24 09:41	03/19/24 15:50	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		03/19/24 09:41	03/19/24 15:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134	03/19/24 09:41	03/19/24 15:50	1

Lab Sample ID: LCS 885-1913/2-A

Matrix: Solid

Analysis Batch: 1993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	43.6		mg/Kg		87	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	105		62 - 134

Eurofins Albuquerque

QC Association Summary

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

GC VOA

Prep Batch: 1812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1272-1	GBR58@40	Total/NA	Solid	5030C	
885-1272-2	GBR58@54	Total/NA	Solid	5030C	
885-1272-3	GBR57@40	Total/NA	Solid	5030C	
885-1272-4	GBR57@50	Total/NA	Solid	5030C	
MB 885-1812/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-1812/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-1812/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-1272-1 MS	GBR58@40	Total/NA	Solid	5030C	
885-1272-1 MSD	GBR58@40	Total/NA	Solid	5030C	
885-1272-2 MS	GBR58@54	Total/NA	Solid	5030C	
885-1272-2 MSD	GBR58@54	Total/NA	Solid	5030C	

Analysis Batch: 2106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1272-1	GBR58@40	Total/NA	Solid	8015D	1812
885-1272-2	GBR58@54	Total/NA	Solid	8015D	1812
885-1272-3	GBR57@40	Total/NA	Solid	8015D	1812
885-1272-4	GBR57@50	Total/NA	Solid	8015D	1812
MB 885-1812/1-A	Method Blank	Total/NA	Solid	8015D	1812
LCS 885-1812/2-A	Lab Control Sample	Total/NA	Solid	8015D	1812
885-1272-1 MS	GBR58@40	Total/NA	Solid	8015D	1812
885-1272-1 MSD	GBR58@40	Total/NA	Solid	8015D	1812

Analysis Batch: 2107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1272-1	GBR58@40	Total/NA	Solid	8021B	1812
885-1272-2	GBR58@54	Total/NA	Solid	8021B	1812
885-1272-3	GBR57@40	Total/NA	Solid	8021B	1812
885-1272-4	GBR57@50	Total/NA	Solid	8021B	1812
MB 885-1812/1-A	Method Blank	Total/NA	Solid	8021B	1812
LCS 885-1812/3-A	Lab Control Sample	Total/NA	Solid	8021B	1812
885-1272-2 MS	GBR58@54	Total/NA	Solid	8021B	1812
885-1272-2 MSD	GBR58@54	Total/NA	Solid	8021B	1812

GC Semi VOA

Prep Batch: 1913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1272-1	GBR58@40	Total/NA	Solid	SHAKE	
885-1272-2	GBR58@54	Total/NA	Solid	SHAKE	
885-1272-3	GBR57@40	Total/NA	Solid	SHAKE	
885-1272-4	GBR57@50	Total/NA	Solid	SHAKE	
MB 885-1913/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-1913/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 1993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1272-1	GBR58@40	Total/NA	Solid	8015D	1913
885-1272-2	GBR58@54	Total/NA	Solid	8015D	1913
885-1272-3	GBR57@40	Total/NA	Solid	8015D	1913
885-1272-4	GBR57@50	Total/NA	Solid	8015D	1913

Eurofins Albuquerque

QC Association Summary

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

GC Semi VOA (Continued)

Analysis Batch: 1993 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-1913/1-A	Method Blank	Total/NA	Solid	8015D	1913
LCS 885-1913/2-A	Lab Control Sample	Total/NA	Solid	8015D	1913

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- 2
- 3
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- 8
- 9
- 10
- 11
- 12

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Client Sample ID: GBR58@40

Date Collected: 03/13/24 15:45

Date Received: 03/15/24 07:22

Lab Sample ID: 885-1272-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/19/24 23:13
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/19/24 23:13
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 16:15

Client Sample ID: GBR58@54

Date Collected: 03/14/24 10:10

Date Received: 03/15/24 07:22

Lab Sample ID: 885-1272-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 00:23
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 00:23
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 16:27

Client Sample ID: GBR57@40

Date Collected: 03/14/24 14:20

Date Received: 03/15/24 07:22

Lab Sample ID: 885-1272-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 01:34
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 01:34
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 16:40

Client Sample ID: GBR57@50

Date Collected: 03/14/24 15:00

Date Received: 03/15/24 07:22

Lab Sample ID: 885-1272-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 01:57
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 01:57
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 16:52

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

1
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Method Summary

Client: Ensolum LLC
Project/Site: GBR Soils

Job ID: 885-1272-1

Method	Method Description	Protocol	Laboratory
8015D	Gasoline Range Organics (GRO) (GC)	SW846	EET ALB
8021B	Volatile Organic Compounds (GC)	SW846	EET ALB
8015D	Diesel Range Organics (DRO) (GC)	SW846	EET ALB
5030C	Purge and Trap	SW846	EET ALB
SHAKE	Preparation, Shake Jar	TestAmerica SOP	EET ALB

Protocol References:
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TestAmerica SOP = TestAmerica, Inc., Standard Operating Procedure

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Chain-of-Custody Record

Client: Ensolum

Turn-Around Time: 5-day ☒ Standard ☐ Rush

Project Name: GBR

Project #: 07A2015003

Project Manager: Stuart Hyde

Mailing Address: 776 E 2nd Ave

Durango, CO 81301

Phone #: 970-903-1607

email or Fax#: shyde@ensolum.com

QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☒ EDD (Type)

Analysis Request

Sampler: Al Thomson

On Ice: ☐ Yes ☐ No 40g

of Coolers: 1

Cooler Temp (including CF): 3.0 - 0.1 = 2.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
3-13	1545	Soil	GBR58@40	1x 402	cool	-1
3-14	1010		GBR58@54			-2
	1420		GBR57@40			-3
	1500		GBR57@50			-4

8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
TPH:8015D(GRO / DRO / MRO)							
BTEX / MTBE / TMB's (8021)							

Date: 3-14 Time: 1642 Relinquished by: Al Thomson

Date: 3/14/24 Time: 1736 Relinquished by: Chad Waack

Received by: Chad Waack Date: 3/14/24 Time: 1642

Received by: Chad Waack Date: 3/15/24 Time: 7:22

Remarks: Please CC: athomson@ensolum.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-1272-1

Login Number: 1272
List Number: 1
Creator: Lowman, Nick

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 3/27/2024 11:42:20 AM

JOB DESCRIPTION

Giant Bloomfield Refinery (GBR)

JOB NUMBER

885-1280-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
3/27/2024 11:42:20 AM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Laboratory Job ID: 885-1280-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Job ID: 885-1280-1

Eurofins Albuquerque

Job Narrative 885-1280-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/15/2024 7:22 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

Gasoline Range Organics

Method 8015D_GRO: Surrogate recovery for the following sample was outside control limits: GBR55@49 (885-1280-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_GRO: Surrogate recovery for the following sample was outside control limits: GBR55@45 (885-1280-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_GRO: Reanalysis was performed for sample GBR55@45 (885-1280-6), and the result(s) confirmed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

Method 8015D_DRO: The following sample was diluted due to the nature of the sample matrix: GBR55@45 (885-1280-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR53@45

Lab Sample ID: 885-1280-1

Date Collected: 03/11/24 15:20

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/15/24 15:58	03/20/24 02:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 244			03/15/24 15:58	03/20/24 02:21	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/15/24 15:58	03/20/24 02:21	1
Ethylbenzene	ND		0.050	mg/Kg		03/15/24 15:58	03/20/24 02:21	1
Toluene	ND		0.050	mg/Kg		03/15/24 15:58	03/20/24 02:21	1
Xylenes, Total	ND		0.10	mg/Kg		03/15/24 15:58	03/20/24 02:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		39 - 146			03/15/24 15:58	03/20/24 02:21	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	30		9.9	mg/Kg		03/19/24 09:41	03/19/24 17:04	1
Motor Oil Range Organics [C28-C40]	170		50	mg/Kg		03/19/24 09:41	03/19/24 17:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			03/19/24 09:41	03/19/24 17:04	1

Client Sample ID: GBR53@60

Lab Sample ID: 885-1280-2

Date Collected: 03/12/24 08:46

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		03/15/24 15:58	03/20/24 02:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 244			03/15/24 15:58	03/20/24 02:44	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		03/15/24 15:58	03/20/24 02:44	1
Ethylbenzene	ND		0.047	mg/Kg		03/15/24 15:58	03/20/24 02:44	1
Toluene	ND		0.047	mg/Kg		03/15/24 15:58	03/20/24 02:44	1
Xylenes, Total	ND		0.094	mg/Kg		03/15/24 15:58	03/20/24 02:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		39 - 146			03/15/24 15:58	03/20/24 02:44	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	21		9.6	mg/Kg		03/19/24 09:41	03/19/24 17:16	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		03/19/24 09:41	03/19/24 17:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			03/19/24 09:41	03/19/24 17:16	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR55@30

Lab Sample ID: 885-1280-3

Date Collected: 03/12/24 12:17

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		03/15/24 15:58	03/20/24 03:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 244			03/15/24 15:58	03/20/24 03:07	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/15/24 15:58	03/20/24 03:07	1
Ethylbenzene	ND		0.047	mg/Kg		03/15/24 15:58	03/20/24 03:07	1
Toluene	ND		0.047	mg/Kg		03/15/24 15:58	03/20/24 03:07	1
Xylenes, Total	ND		0.094	mg/Kg		03/15/24 15:58	03/20/24 03:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		39 - 146			03/15/24 15:58	03/20/24 03:07	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	19		9.1	mg/Kg		03/19/24 09:41	03/19/24 17:29	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		03/19/24 09:41	03/19/24 17:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			03/19/24 09:41	03/19/24 17:29	1

Client Sample ID: GBR55@35

Lab Sample ID: 885-1280-4

Date Collected: 03/12/24 13:58

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	7.2		4.6	mg/Kg		03/15/24 15:58	03/20/24 03:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	163		15 - 244			03/15/24 15:58	03/20/24 03:31	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		03/15/24 15:58	03/20/24 03:31	1
Ethylbenzene	ND		0.046	mg/Kg		03/15/24 15:58	03/20/24 03:31	1
Toluene	ND		0.046	mg/Kg		03/15/24 15:58	03/20/24 03:31	1
Xylenes, Total	ND		0.093	mg/Kg		03/15/24 15:58	03/20/24 03:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		39 - 146			03/15/24 15:58	03/20/24 03:31	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	270		9.5	mg/Kg		03/19/24 09:41	03/19/24 17:41	1
Motor Oil Range Organics [C28-C40]	200		48	mg/Kg		03/19/24 09:41	03/19/24 17:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	118		62 - 134			03/19/24 09:41	03/19/24 17:41	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR55@40

Lab Sample ID: 885-1280-5

Date Collected: 03/12/24 14:23

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		03/15/24 15:58	03/20/24 03:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134		15 - 244			03/15/24 15:58	03/20/24 03:54	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		03/15/24 15:58	03/20/24 03:54	1
Ethylbenzene	ND		0.046	mg/Kg		03/15/24 15:58	03/20/24 03:54	1
Toluene	ND		0.046	mg/Kg		03/15/24 15:58	03/20/24 03:54	1
Xylenes, Total	ND		0.092	mg/Kg		03/15/24 15:58	03/20/24 03:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/15/24 15:58	03/20/24 03:54	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	62		8.6	mg/Kg		03/19/24 09:41	03/19/24 17:53	1
Motor Oil Range Organics [C28-C40]	44		43	mg/Kg		03/19/24 09:41	03/19/24 17:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	106		62 - 134			03/19/24 09:41	03/19/24 17:53	1

Client Sample ID: GBR55@45

Lab Sample ID: 885-1280-6

Date Collected: 03/12/24 14:44

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	30		4.6	mg/Kg		03/15/24 15:58	03/21/24 16:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	569	S1+	15 - 244			03/15/24 15:58	03/21/24 16:41	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		03/15/24 15:58	03/21/24 16:41	1
Ethylbenzene	ND		0.046	mg/Kg		03/15/24 15:58	03/21/24 16:41	1
Toluene	ND		0.046	mg/Kg		03/15/24 15:58	03/21/24 16:41	1
Xylenes, Total	0.14		0.093	mg/Kg		03/15/24 15:58	03/21/24 16:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		39 - 146			03/15/24 15:58	03/21/24 16:41	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1400		96	mg/Kg		03/19/24 09:41	03/21/24 00:15	10
Motor Oil Range Organics [C28-C40]	ND	D	480	mg/Kg		03/19/24 09:41	03/21/24 00:15	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	S1- D	62 - 134			03/19/24 09:41	03/21/24 00:15	10

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR55@49

Lab Sample ID: 885-1280-7

Date Collected: 03/12/24 14:58

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	27		4.8	mg/Kg		03/15/24 15:58	03/20/24 05:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	525	S1+	15 - 244			03/15/24 15:58	03/20/24 05:51	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/15/24 15:58	03/20/24 05:51	1
Ethylbenzene	ND		0.048	mg/Kg		03/15/24 15:58	03/20/24 05:51	1
Toluene	ND		0.048	mg/Kg		03/15/24 15:58	03/20/24 05:51	1
Xylenes, Total	0.10		0.097	mg/Kg		03/15/24 15:58	03/20/24 05:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		39 - 146			03/15/24 15:58	03/20/24 05:51	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	490		9.7	mg/Kg		03/19/24 09:41	03/19/24 18:30	1
Motor Oil Range Organics [C28-C40]	94		49	mg/Kg		03/19/24 09:41	03/19/24 18:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134			03/19/24 09:41	03/19/24 18:30	1

Client Sample ID: GBR56@30

Lab Sample ID: 885-1280-8

Date Collected: 03/13/24 09:40

Matrix: Solid

Date Received: 03/15/24 07:22

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/15/24 15:58	03/20/24 06:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		15 - 244			03/15/24 15:58	03/20/24 06:15	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/15/24 15:58	03/20/24 06:15	1
Ethylbenzene	ND		0.050	mg/Kg		03/15/24 15:58	03/20/24 06:15	1
Toluene	ND		0.050	mg/Kg		03/15/24 15:58	03/20/24 06:15	1
Xylenes, Total	ND		0.099	mg/Kg		03/15/24 15:58	03/20/24 06:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/15/24 15:58	03/20/24 06:15	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	110		9.3	mg/Kg		03/19/24 09:41	03/19/24 18:42	1
Motor Oil Range Organics [C28-C40]	130		46	mg/Kg		03/19/24 09:41	03/19/24 18:42	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR56@30
Date Collected: 03/13/24 09:40
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-8
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134	03/19/24 09:41	03/19/24 18:42	1

Client Sample ID: GBR56@53
Date Collected: 03/13/24 11:56
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-9
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		03/15/24 15:58	03/20/24 06:38	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			03/15/24 15:58	03/20/24 06:38	1	

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/15/24 15:58	03/20/24 06:38		1
Ethylbenzene	ND		0.048	mg/Kg		03/15/24 15:58	03/20/24 06:38		1
Toluene	ND		0.048	mg/Kg		03/15/24 15:58	03/20/24 06:38		1
Xylenes, Total	ND		0.096	mg/Kg		03/15/24 15:58	03/20/24 06:38		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	90		39 - 146			03/15/24 15:58	03/20/24 06:38		1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	100		8.9	mg/Kg		03/19/24 09:41	03/19/24 18:54	1
Motor Oil Range Organics [C28-C40]	140		44	mg/Kg		03/19/24 09:41	03/19/24 18:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			03/19/24 09:41	03/19/24 18:54	1

QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-1812/1-A

Matrix: Solid

Analysis Batch: 2106

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1812

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			03/15/24 15:58	03/19/24 09:57	1

Lab Sample ID: LCS 885-1812/2-A

Matrix: Solid

Analysis Batch: 2106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	20.4		mg/Kg		82	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	197		15 - 244				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-1812/1-A

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1812

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Ethylbenzene	ND		0.050	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Toluene	ND		0.050	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Xylenes, Total	ND		0.10	mg/Kg		03/15/24 15:58	03/19/24 09:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		39 - 146			03/15/24 15:58	03/19/24 09:57	1

Lab Sample ID: LCS 885-1812/3-A

Matrix: Solid

Analysis Batch: 2107

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1812

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.882		mg/Kg		88	70 - 130
Ethylbenzene	1.00	0.903		mg/Kg		90	70 - 130
m,p-Xylene	2.00	1.83		mg/Kg		92	70 - 130
o-Xylene	1.00	0.896		mg/Kg		90	70 - 130
Toluene	1.00	0.894		mg/Kg		89	70 - 130
Xylenes, Total	3.00	2.73		mg/Kg		91	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	96		39 - 146				

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-1913/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 1993						Prep Batch: 1913			
Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		03/19/24 09:41	03/19/24 15:50	1	
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		03/19/24 09:41	03/19/24 15:50	1	
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
Di-n-octyl phthalate (Surr)	103		62 - 134			03/19/24 09:41	03/19/24 15:50	1	

Lab Sample ID: LCS 885-1913/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 1993					Prep Batch: 1913				
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	43.6		mg/Kg		87	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	105		62 - 134						

QC Association Summary

Client: Ensolum LLC

Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

GC VOA

Prep Batch: 1812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-1	GBR53@45	Total/NA	Solid	5030C	
885-1280-2	GBR53@60	Total/NA	Solid	5030C	
885-1280-3	GBR55@30	Total/NA	Solid	5030C	
885-1280-4	GBR55@35	Total/NA	Solid	5030C	
885-1280-5	GBR55@40	Total/NA	Solid	5030C	
885-1280-6	GBR55@45	Total/NA	Solid	5030C	
885-1280-7	GBR55@49	Total/NA	Solid	5030C	
885-1280-8	GBR56@30	Total/NA	Solid	5030C	
885-1280-9	GBR56@53	Total/NA	Solid	5030C	
MB 885-1812/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-1812/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-1812/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 2106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-1	GBR53@45	Total/NA	Solid	8015D	1812
885-1280-2	GBR53@60	Total/NA	Solid	8015D	1812
885-1280-3	GBR55@30	Total/NA	Solid	8015D	1812
885-1280-4	GBR55@35	Total/NA	Solid	8015D	1812
885-1280-5	GBR55@40	Total/NA	Solid	8015D	1812
885-1280-7	GBR55@49	Total/NA	Solid	8015D	1812
885-1280-8	GBR56@30	Total/NA	Solid	8015D	1812
885-1280-9	GBR56@53	Total/NA	Solid	8015D	1812
MB 885-1812/1-A	Method Blank	Total/NA	Solid	8015D	1812
LCS 885-1812/2-A	Lab Control Sample	Total/NA	Solid	8015D	1812

Analysis Batch: 2107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-1	GBR53@45	Total/NA	Solid	8021B	1812
885-1280-2	GBR53@60	Total/NA	Solid	8021B	1812
885-1280-3	GBR55@30	Total/NA	Solid	8021B	1812
885-1280-4	GBR55@35	Total/NA	Solid	8021B	1812
885-1280-5	GBR55@40	Total/NA	Solid	8021B	1812
885-1280-7	GBR55@49	Total/NA	Solid	8021B	1812
885-1280-8	GBR56@30	Total/NA	Solid	8021B	1812
885-1280-9	GBR56@53	Total/NA	Solid	8021B	1812
MB 885-1812/1-A	Method Blank	Total/NA	Solid	8021B	1812
LCS 885-1812/3-A	Lab Control Sample	Total/NA	Solid	8021B	1812

Analysis Batch: 2155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-6	GBR55@45	Total/NA	Solid	8015D	1812

Analysis Batch: 2156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-6	GBR55@45	Total/NA	Solid	8021B	1812

QC Association Summary

Client: Ensolum LLC

Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

GC Semi VOA

Prep Batch: 1913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-1	GBR53@45	Total/NA	Solid	SHAKE	
885-1280-2	GBR53@60	Total/NA	Solid	SHAKE	
885-1280-3	GBR55@30	Total/NA	Solid	SHAKE	
885-1280-4	GBR55@35	Total/NA	Solid	SHAKE	
885-1280-5	GBR55@40	Total/NA	Solid	SHAKE	
885-1280-6	GBR55@45	Total/NA	Solid	SHAKE	
885-1280-7	GBR55@49	Total/NA	Solid	SHAKE	
885-1280-8	GBR56@30	Total/NA	Solid	SHAKE	
885-1280-9	GBR56@53	Total/NA	Solid	SHAKE	
MB 885-1913/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-1913/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 1993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-1	GBR53@45	Total/NA	Solid	8015D	1913
885-1280-2	GBR53@60	Total/NA	Solid	8015D	1913
885-1280-3	GBR55@30	Total/NA	Solid	8015D	1913
885-1280-4	GBR55@35	Total/NA	Solid	8015D	1913
885-1280-5	GBR55@40	Total/NA	Solid	8015D	1913
885-1280-7	GBR55@49	Total/NA	Solid	8015D	1913
885-1280-8	GBR56@30	Total/NA	Solid	8015D	1913
885-1280-9	GBR56@53	Total/NA	Solid	8015D	1913
MB 885-1913/1-A	Method Blank	Total/NA	Solid	8015D	1913
LCS 885-1913/2-A	Lab Control Sample	Total/NA	Solid	8015D	1913

Analysis Batch: 2087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1280-6	GBR55@45	Total/NA	Solid	8015D	1913

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR53@45
Date Collected: 03/11/24 15:20
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 02:21
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 02:21
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 17:04

Client Sample ID: GBR53@60
Date Collected: 03/12/24 08:46
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 02:44
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 02:44
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 17:16

Client Sample ID: GBR55@30
Date Collected: 03/12/24 12:17
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 03:07
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 03:07
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 17:29

Client Sample ID: GBR55@35
Date Collected: 03/12/24 13:58
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 03:31
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 03:31
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 17:41

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR55@40
Date Collected: 03/12/24 14:23
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 03:54
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 03:54
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 17:53

Client Sample ID: GBR55@45
Date Collected: 03/12/24 14:44
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2155	JP	EET ALB	03/21/24 16:41
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2156	JP	EET ALB	03/21/24 16:41
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		10	2087	JU	EET ALB	03/21/24 00:15

Client Sample ID: GBR55@49
Date Collected: 03/12/24 14:58
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 05:51
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 05:51
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 18:30

Client Sample ID: GBR56@30
Date Collected: 03/13/24 09:40
Date Received: 03/15/24 07:22

Lab Sample ID: 885-1280-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 06:15
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 06:15
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 18:42

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Client Sample ID: GBR56@53

Lab Sample ID: 885-1280-9

Date Collected: 03/13/24 11:56

Matrix: Solid

Date Received: 03/15/24 07:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8015D		1	2106	JP	EET ALB	03/20/24 06:38
Total/NA	Prep	5030C			1812	JP	EET ALB	03/15/24 15:58
Total/NA	Analysis	8021B		1	2107	JP	EET ALB	03/20/24 06:38
Total/NA	Prep	SHAKE			1913	JU	EET ALB	03/19/24 09:41
Total/NA	Analysis	8015D		1	1993	JU	EET ALB	03/19/24 18:54

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

1
2
3
4
5
6
7
8
9
10
11
12

Method Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery (GBR)

Job ID: 885-1280-1

Method	Method Description	Protocol	Laboratory
8015D	Gasoline Range Organics (GRO) (GC)	SW846	EET ALB
8021B	Volatile Organic Compounds (GC)	SW846	EET ALB
8015D	Diesel Range Organics (DRO) (GC)	SW846	EET ALB
5030C	Purge and Trap	SW846	EET ALB
SHAKE	Preparation, Shake Jar	TestAmerica SOP	EET ALB

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TestAmerica SOP = TestAmerica, Inc., Standard Operating Procedure

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Chain-of-Custody Record

Client:	Northwestern Petroleum Company AS
	Ensolum
Mailing Address:	776 E 2nd Ave
	Durango, CO 81301
Phone #:	970-9031607
email or Fax#:	skyde@ensolum.com
QA/QC Package:	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)
Accreditation:	<input type="checkbox"/> Az Compliance
<input type="checkbox"/> NELAC	<input type="checkbox"/> Other _____
<input type="checkbox"/> EDD (Type)	

Date	Time	Matrix	Sample Name
3-11	1520	50.1	GBR53@45
3-12	846		GBR53@60
3-12	1217		GBR55@30
3-12	1358		GBR55@35
3-12	1423		GBR55@40
3-12	1444		GBR55@45
3-12	1458		GBR55@49
3-13	940		GBR56@30
3-13	1156		GBR56@53

[illegible]

Turn-Around Time:	5-day
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Project Name:	Giant Bloomfield Relay (GBR)
Project #:	07A2015003
Project Manager:	Stuart Hyde shyde@ensdum.com
Sampler:	Zach Myers
On Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
# of Coolers:	1
Cooler Temp (including CFI):	3.0-0.1 = 2.9 (°C)

Container Type and #	Preservative Type	HEAL No.
1x4oz jar	cool	-1
		-2
		-3
		-4
		-5
		-6
		-7
		-8
		-9

[illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

885-1280 COC

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks:

Please CC: zmyers@consolvm.com

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-----, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-1280-1

Login Number: 1280

List Number: 1

Creator: Proctor, Nancy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 3/29/2024 4:31:56 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-1451-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: GBR

Laboratory Job ID: 885-1451-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: GBR

Job ID: 885-1451-1

Job ID: 885-1451-1

Eurofins Albuquerque

Job Narrative 885-1451-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/20/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

Method 8015D_DRO: The following samples were diluted due to the nature of the sample matrix: GBR 60 @35 (885-1451-1) and GBR 59 @ 30 (885-1451-3). Elevated reporting limits (RLs) are provided.

Method 8015D_DRO: The following samples required a dilution due to the nature of the sample matrix: GBR 60 @35 (885-1451-1) and GBR 59 @ 30 (885-1451-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Client Sample ID: GBR 60 @35

Lab Sample ID: 885-1451-1

Date Collected: 03/18/24 14:20

Matrix: Solid

Date Received: 03/20/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	8.8		4.9	mg/Kg		03/20/24 10:25	03/27/24 12:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135		15 - 244			03/20/24 10:25	03/27/24 12:47	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/20/24 10:25	03/27/24 12:47	1
Ethylbenzene	ND		0.049	mg/Kg		03/20/24 10:25	03/27/24 12:47	1
Toluene	ND		0.049	mg/Kg		03/20/24 10:25	03/27/24 12:47	1
Xylenes, Total	ND		0.098	mg/Kg		03/20/24 10:25	03/27/24 12:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		39 - 146			03/20/24 10:25	03/27/24 12:47	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1300		91	mg/Kg		03/21/24 15:26	03/22/24 11:53	10
Motor Oil Range Organics [C28-C40]	ND	D	460	mg/Kg		03/21/24 15:26	03/22/24 11:53	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	S1- D	62 - 134			03/21/24 15:26	03/22/24 11:53	10

Client Sample ID: GBR 60 @47

Lab Sample ID: 885-1451-2

Date Collected: 03/18/24 15:00

Matrix: Solid

Date Received: 03/20/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/20/24 10:25	03/27/24 10:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244			03/20/24 10:25	03/27/24 10:49	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/20/24 10:25	03/27/24 10:49	1
Ethylbenzene	ND		0.050	mg/Kg		03/20/24 10:25	03/27/24 10:49	1
Toluene	ND		0.050	mg/Kg		03/20/24 10:25	03/27/24 10:49	1
Xylenes, Total	ND		0.10	mg/Kg		03/20/24 10:25	03/27/24 10:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/20/24 10:25	03/27/24 10:49	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	61		8.8	mg/Kg		03/21/24 15:26	03/25/24 11:52	1
Motor Oil Range Organics [C28-C40]	ND		44	mg/Kg		03/21/24 15:26	03/25/24 11:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	117		62 - 134			03/21/24 15:26	03/25/24 11:52	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Client Sample ID: GBR 59 @ 30

Lab Sample ID: 885-1451-3

Date Collected: 03/19/24 13:10

Matrix: Solid

Date Received: 03/20/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		03/20/24 10:25	03/27/24 11:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143		15 - 244			03/20/24 10:25	03/27/24 11:59	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		03/20/24 10:25	03/27/24 11:59	1
Ethylbenzene	ND		0.047	mg/Kg		03/20/24 10:25	03/27/24 11:59	1
Toluene	ND		0.047	mg/Kg		03/20/24 10:25	03/27/24 11:59	1
Xylenes, Total	ND		0.093	mg/Kg		03/20/24 10:25	03/27/24 11:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/20/24 10:25	03/27/24 11:59	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1100		76	mg/Kg		03/21/24 15:26	03/22/24 16:07	10
Motor Oil Range Organics [C28-C40]	ND	D	380	mg/Kg		03/21/24 15:26	03/22/24 16:07	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	S1- D	62 - 134			03/21/24 15:26	03/22/24 16:07	10

Client Sample ID: GBR 59 @ 35

Lab Sample ID: 885-1451-4

Date Collected: 03/19/24 13:20

Matrix: Solid

Date Received: 03/20/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		03/20/24 10:25	03/27/24 11:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		15 - 244			03/20/24 10:25	03/27/24 11:12	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		03/20/24 10:25	03/27/24 11:12	1
Ethylbenzene	ND		0.046	mg/Kg		03/20/24 10:25	03/27/24 11:12	1
Toluene	ND		0.046	mg/Kg		03/20/24 10:25	03/27/24 11:12	1
Xylenes, Total	ND		0.092	mg/Kg		03/20/24 10:25	03/27/24 11:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		39 - 146			03/20/24 10:25	03/27/24 11:12	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	61		9.9	mg/Kg		03/21/24 15:26	03/22/24 16:18	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		03/21/24 15:26	03/22/24 16:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	130		62 - 134			03/21/24 15:26	03/22/24 16:18	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Client Sample ID: GBR 59 @47
Date Collected: 03/19/24 14:30
Date Received: 03/20/24 07:55

Lab Sample ID: 885-1451-5
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		03/20/24 10:25	03/27/24 11:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		15 - 244			03/20/24 10:25	03/27/24 11:36	1	

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		03/20/24 10:25	03/27/24 11:36	1	
Ethylbenzene	ND		0.047	mg/Kg		03/20/24 10:25	03/27/24 11:36	1	
Toluene	ND		0.047	mg/Kg		03/20/24 10:25	03/27/24 11:36	1	
Xylenes, Total	ND		0.094	mg/Kg		03/20/24 10:25	03/27/24 11:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	94		39 - 146			03/20/24 10:25	03/27/24 11:36	1	

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	29		8.6	mg/Kg		03/21/24 15:26	03/22/24 16:29	1	
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		03/21/24 15:26	03/22/24 16:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	99		62 - 134			03/21/24 15:26	03/22/24 16:29	1	

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-1997/1-A

Matrix: Solid

Analysis Batch: 2430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1997

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/20/24 10:25	03/27/24 10:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 244			03/20/24 10:25	03/27/24 10:02	1

Lab Sample ID: LCS 885-1997/2-A

Matrix: Solid

Analysis Batch: 2430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	26.6		mg/Kg		106	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	207		15 - 244				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-1997/1-A

Matrix: Solid

Analysis Batch: 2431

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1997

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/20/24 10:25	03/27/24 10:02	1
Ethylbenzene	ND		0.050	mg/Kg		03/20/24 10:25	03/27/24 10:02	1
Toluene	ND		0.050	mg/Kg		03/20/24 10:25	03/27/24 10:02	1
Xylenes, Total	ND		0.10	mg/Kg		03/20/24 10:25	03/27/24 10:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		39 - 146			03/20/24 10:25	03/27/24 10:02	1

Lab Sample ID: LCS 885-1997/3-A

Matrix: Solid

Analysis Batch: 2431

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.848		mg/Kg		85	70 - 130
Ethylbenzene	1.00	0.874		mg/Kg		87	70 - 130
m,p-Xylene	2.00	1.80		mg/Kg		90	70 - 130
o-Xylene	1.00	0.869		mg/Kg		87	70 - 130
Toluene	1.00	0.876		mg/Kg		88	70 - 130
Xylenes, Total	3.00	2.67		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	98		39 - 146				

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-2117/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 2210						Prep Batch: 2117			
Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		03/21/24 15:26	03/22/24 10:06	1	
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		03/21/24 15:26	03/22/24 10:06	1	
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
Di-n-octyl phthalate (Surr)	115		62 - 134			03/21/24 15:26	03/22/24 10:06	1	

Lab Sample ID: LCS 885-2117/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 2210						Prep Batch: 2117			
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	53.8		mg/Kg		108	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	114		62 - 134						

QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

GC VOA

Prep Batch: 1997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1451-1	GBR 60 @35	Total/NA	Solid	5030C	
885-1451-2	GBR 60 @47	Total/NA	Solid	5030C	
885-1451-3	GBR 59 @ 30	Total/NA	Solid	5030C	
885-1451-4	GBR 59 @ 35	Total/NA	Solid	5030C	
885-1451-5	GBR 59 @47	Total/NA	Solid	5030C	
MB 885-1997/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-1997/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-1997/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 2430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1451-1	GBR 60 @35	Total/NA	Solid	8015D	1997
885-1451-2	GBR 60 @47	Total/NA	Solid	8015D	1997
885-1451-3	GBR 59 @ 30	Total/NA	Solid	8015D	1997
885-1451-4	GBR 59 @ 35	Total/NA	Solid	8015D	1997
885-1451-5	GBR 59 @47	Total/NA	Solid	8015D	1997
MB 885-1997/1-A	Method Blank	Total/NA	Solid	8015D	1997
LCS 885-1997/2-A	Lab Control Sample	Total/NA	Solid	8015D	1997

Analysis Batch: 2431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1451-1	GBR 60 @35	Total/NA	Solid	8021B	1997
885-1451-2	GBR 60 @47	Total/NA	Solid	8021B	1997
885-1451-3	GBR 59 @ 30	Total/NA	Solid	8021B	1997
885-1451-4	GBR 59 @ 35	Total/NA	Solid	8021B	1997
885-1451-5	GBR 59 @47	Total/NA	Solid	8021B	1997
MB 885-1997/1-A	Method Blank	Total/NA	Solid	8021B	1997
LCS 885-1997/3-A	Lab Control Sample	Total/NA	Solid	8021B	1997

GC Semi VOA

Prep Batch: 2117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1451-1	GBR 60 @35	Total/NA	Solid	SHAKE	
885-1451-2	GBR 60 @47	Total/NA	Solid	SHAKE	
885-1451-3	GBR 59 @ 30	Total/NA	Solid	SHAKE	
885-1451-4	GBR 59 @ 35	Total/NA	Solid	SHAKE	
885-1451-5	GBR 59 @47	Total/NA	Solid	SHAKE	
MB 885-2117/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-2117/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 2210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1451-1	GBR 60 @35	Total/NA	Solid	8015D	2117
885-1451-3	GBR 59 @ 30	Total/NA	Solid	8015D	2117
885-1451-4	GBR 59 @ 35	Total/NA	Solid	8015D	2117
885-1451-5	GBR 59 @47	Total/NA	Solid	8015D	2117
MB 885-2117/1-A	Method Blank	Total/NA	Solid	8015D	2117
LCS 885-2117/2-A	Lab Control Sample	Total/NA	Solid	8015D	2117

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QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

GC Semi VOA

Analysis Batch: 2257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1451-2	GBR 60 @47	Total/NA	Solid	8015D	2117

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Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Client Sample ID: GBR 60 @35
Date Collected: 03/18/24 14:20
Date Received: 03/20/24 07:55

Lab Sample ID: 885-1451-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8015D		1	2430	JP	EET ALB	03/27/24 12:47
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8021B		1	2431	JP	EET ALB	03/27/24 12:47
Total/NA	Prep	SHAKE			2117	SB	EET ALB	03/21/24 15:26
Total/NA	Analysis	8015D		10	2210	PD	EET ALB	03/22/24 11:53

Client Sample ID: GBR 60 @47
Date Collected: 03/18/24 15:00
Date Received: 03/20/24 07:55

Lab Sample ID: 885-1451-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8015D		1	2430	JP	EET ALB	03/27/24 10:49
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8021B		1	2431	JP	EET ALB	03/27/24 10:49
Total/NA	Prep	SHAKE			2117	SB	EET ALB	03/21/24 15:26
Total/NA	Analysis	8015D		1	2257	PD	EET ALB	03/25/24 11:52

Client Sample ID: GBR 59 @ 30
Date Collected: 03/19/24 13:10
Date Received: 03/20/24 07:55

Lab Sample ID: 885-1451-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8015D		1	2430	JP	EET ALB	03/27/24 11:59
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8021B		1	2431	JP	EET ALB	03/27/24 11:59
Total/NA	Prep	SHAKE			2117	SB	EET ALB	03/21/24 15:26
Total/NA	Analysis	8015D		10	2210	PD	EET ALB	03/22/24 16:07

Client Sample ID: GBR 59 @ 35
Date Collected: 03/19/24 13:20
Date Received: 03/20/24 07:55

Lab Sample ID: 885-1451-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8015D		1	2430	JP	EET ALB	03/27/24 11:12
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8021B		1	2431	JP	EET ALB	03/27/24 11:12
Total/NA	Prep	SHAKE			2117	SB	EET ALB	03/21/24 15:26
Total/NA	Analysis	8015D		1	2210	PD	EET ALB	03/22/24 16:18

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Client Sample ID: GBR 59 @47
Date Collected: 03/19/24 14:30
Date Received: 03/20/24 07:55

Lab Sample ID: 885-1451-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8015D		1	2430	JP	EET ALB	03/27/24 11:36
Total/NA	Prep	5030C			1997	IMR	EET ALB	03/20/24 10:25
Total/NA	Analysis	8021B		1	2431	JP	EET ALB	03/27/24 11:36
Total/NA	Prep	SHAKE			2117	SB	EET ALB	03/21/24 15:26
Total/NA	Analysis	8015D		1	2210	PD	EET ALB	03/22/24 16:29

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1451-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

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Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-1451-1

Login Number: 1451
List Number: 1
Creator: Alderette, Joseph

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 09, 2024

Stuart Hyde

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Giant Bloomfield Refinery

OrderNo.: 2401A17

Dear Stuart Hyde:

Eurofins Environment Testing South Central, LLC received 14 sample(s) on 1/25/2024 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

CLIENT: ENSOLUM
Project: Giant Bloomfield Refinery
Lab ID: 2401A17-001

Client Sample ID: GBR-41R@24-26'
Collection Date: 1/23/2024 12:30:00 PM
Received Date: 1/25/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	91	9.4		mg/Kg	1	1/29/2024 4:14:54 PM	80109
Motor Oil Range Organics (MRO)	49	47		mg/Kg	1	1/29/2024 4:14:54 PM	80109
Surr: DNOP	79.7	69-147		%Rec	1	1/29/2024 4:14:54 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Surr: BFB	99.3	15-244		%Rec	1	1/27/2024 9:22:34 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Toluene	ND	0.048		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Xylenes, Total	ND	0.096		mg/Kg	1	1/27/2024 9:22:34 AM	80099
Surr: 4-Bromofluorobenzene	90.6	39.1-146		%Rec	1	1/27/2024 9:22:34 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

CLIENT: ENSOLUM

Client Sample ID: GBR-41R@29-31'

Project: Giant Bloomfield Refinery

Collection Date: 1/23/2024 12:40:00 PM

Lab ID: 2401A17-002

Matrix: SOIL

Received Date: 1/25/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	1100	94		mg/Kg	10	1/30/2024 11:55:07 AM	80109
Motor Oil Range Organics (MRO)	ND	470	D	mg/Kg	10	1/30/2024 11:55:07 AM	80109
Surr: DNOP	0	69-147	S	%Rec	10	1/30/2024 11:55:07 AM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	200	23		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Surr: BFB	536	15-244	S	%Rec	5	1/29/2024 10:55:40 PM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.11		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Toluene	ND	0.23		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Ethylbenzene	0.29	0.23		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Xylenes, Total	0.70	0.46		mg/Kg	5	1/29/2024 10:55:40 PM	80099
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	5	1/29/2024 10:55:40 PM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported: 2/9/2024

CLIENT: ENSOLUM Client Sample ID: GBR-41R@34-36'
Project: Giant Bloomfield Refinery Collection Date: 1/23/2024 12:50:00 PM
Lab ID: 2401A17-003 Matrix: SOIL Received Date: 1/25/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	61	9.0		mg/Kg	1	1/29/2024 4:39:22 PM	80109
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/29/2024 4:39:22 PM	80109
Surr: DNOP	85.7	69-147		%Rec	1	1/29/2024 4:39:22 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	11	4.8		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Surr: BFB	279	15-244	S	%Rec	1	1/27/2024 10:10:04 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Toluene	ND	0.048		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Xylenes, Total	ND	0.097		mg/Kg	1	1/27/2024 10:10:04 AM	80099
Surr: 4-Bromofluorobenzene	91.8	39.1-146		%Rec	1	1/27/2024 10:10:04 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported: 2/9/2024

CLIENT: ENSOLUM Client Sample ID: GBR-41R@39-41'
Project: Giant Bloomfield Refinery Collection Date: 1/23/2024 1:00:00 PM
Lab ID: 2401A17-004 Matrix: SOIL Received Date: 1/25/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/29/2024 4:51:34 PM	80109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/29/2024 4:51:34 PM	80109
Surr: DNOP	88.5	69-147		%Rec	1	1/29/2024 4:51:34 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Surr: BFB	103	15-244		%Rec	1	1/27/2024 10:33:33 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Toluene	ND	0.048		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Ethylbenzene	ND	0.048		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Xylenes, Total	ND	0.095		mg/Kg	1	1/27/2024 10:33:33 AM	80099
Surr: 4-Bromofluorobenzene	90.0	39.1-146		%Rec	1	1/27/2024 10:33:33 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

CLIENT: ENSOLUM

Client Sample ID: GBR-41R@44-46'

Project: Giant Bloomfield Refinery

Collection Date: 1/23/2024 3:10:00 AM

Lab ID: 2401A17-005

Matrix: SOIL

Received Date: 1/25/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JKU
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/29/2024 5:03:45 PM	80109
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/29/2024 5:03:45 PM	80109
Surr: DNOP	82.8	69-147		%Rec	1	1/29/2024 5:03:45 PM	80109
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Surr: BFB	102	15-244		%Rec	1	1/27/2024 10:57:13 AM	80099
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Toluene	ND	0.046		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Ethylbenzene	ND	0.046		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Xylenes, Total	ND	0.091		mg/Kg	1	1/27/2024 10:57:13 AM	80099
Surr: 4-Bromofluorobenzene	92.2	39.1-146		%Rec	1	1/27/2024 10:57:13 AM	80099

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2401A17
Date Reported: 2/9/2024

CLIENT: ENSOLUM Client Sample ID: GBR-54@45-47'
Project: Giant Bloomfield Refinery Collection Date: 1/24/2024 11:20:00 AM
Lab ID: 2401A17-012 Matrix: SOIL Received Date: 1/25/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	1/29/2024 5:08:43 PM	80147
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	1/29/2024 5:08:43 PM	80147
Surr: DNOP	95.1	69-147		%Rec	1	1/29/2024 5:08:43 PM	80147
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Surr: BFB	98.8	15-244		%Rec	1	1/30/2024 5:17:48 PM	80143
EPA METHOD 8021B: VOLATILES							Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Toluene	ND	0.046		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Ethylbenzene	ND	0.046		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Xylenes, Total	ND	0.093		mg/Kg	1	1/30/2024 5:17:48 PM	80143
Surr: 4-Bromofluorobenzene	89.5	39.1-146		%Rec	1	1/30/2024 5:17:48 PM	80143

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2401A17

09-Feb-24

Client: ENSOLUM
Project: Giant Bloomfield Refinery

Sample ID: LCS-80109	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 80109		RunNo: 102750							
Prep Date: 1/26/2024	Analysis Date: 1/29/2024		SeqNo: 3796506		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	61.9	130			
Surr: DNOP	4.6		5.000		91.8	69	147			

Sample ID: MB-80147	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 80147		RunNo: 102750							
Prep Date: 1/29/2024	Analysis Date: 1/29/2024		SeqNo: 3796530		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.8		10.00		78.4	69	147			

Sample ID: LCS-80147	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 80147		RunNo: 102750							
Prep Date: 1/29/2024	Analysis Date: 1/29/2024		SeqNo: 3796531		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.6	61.9	130			
Surr: DNOP	3.9		5.000		77.7	69	147			

Sample ID: MB-80109	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 80109		RunNo: 102805							
Prep Date: 1/26/2024	Analysis Date: 1/31/2024		SeqNo: 3798555		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		118	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2401A17

09-Feb-24

Client: ENSOLUM
Project: Giant Bloomfield Refinery

Sample ID: lcs-80099	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 80099		RunNo: 102722							
Prep Date: 1/25/2024	Analysis Date: 1/27/2024		SeqNo: 3795560		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	70	130			
Surr: BFB	2100		1000		210	15	244			

Sample ID: mb-80099	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 80099		RunNo: 102722							
Prep Date: 1/25/2024	Analysis Date: 1/27/2024		SeqNo: 3795562		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		99.4	15	244			

Sample ID: lcs-80143	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 80143		RunNo: 102759							
Prep Date: 1/29/2024	Analysis Date: 1/30/2024		SeqNo: 3796706		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.1	70	130			
Surr: BFB	1900		1000		192	15	244			

Sample ID: mb-80143	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 80143		RunNo: 102759							
Prep Date: 1/29/2024	Analysis Date: 1/30/2024		SeqNo: 3796707		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.4	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2401A17

09-Feb-24

Client: ENSOLUM
Project: Giant Bloomfield Refinery

Sample ID: LCS-80099	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 80099			RunNo: 102722						
Prep Date: 1/25/2024	Analysis Date: 1/27/2024			SeqNo: 3795616		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.5	70	130			
Toluene	0.92	0.050	1.000	0	91.8	70	130			
Ethylbenzene	0.93	0.050	1.000	0	92.5	70	130			
Xylenes, Total	2.8	0.10	3.000	0	93.4	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.0	39.1	146			

Sample ID: mb-80099	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 80099			RunNo: 102722						
Prep Date: 1/25/2024	Analysis Date: 1/27/2024			SeqNo: 3795618		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	39.1	146			

Sample ID: LCS-80143	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 80143			RunNo: 102759						
Prep Date: 1/29/2024	Analysis Date: 1/30/2024			SeqNo: 3796711		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.7	70	130			
Toluene	0.87	0.050	1.000	0	87.0	70	130			
Ethylbenzene	0.86	0.050	1.000	0	86.4	70	130			
Xylenes, Total	2.6	0.10	3.000	0	86.9	70	130			
Surr: 4-Bromofluorobenzene	0.87		1.000		86.6	39.1	146			

Sample ID: mb-80143	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 80143			RunNo: 102759						
Prep Date: 1/29/2024	Analysis Date: 1/30/2024			SeqNo: 3796712		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.84		1.000		83.7	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Above Quantitation Range/Estimated Value
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.	

Sample Log-In Check List

Client Name: ENSOLUM

Work Order Number: 2401A17

RcptNo: 1

Received By: Cheyenne Cason

1/25/2024 7:45:00 AM

Chad

Completed By: Tracy Casarrubias

1/25/2024 8:47:52 AM

Reviewed By:

*JH 1-25-24*Chain of Custody

1. Is Chain of Custody complete? Yes ☐ No ☒ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
5. Sample(s) in proper container(s)? Samples not frozen
Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *m-1/25/24*Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail☐ Phone☐ Fax☐ In Person

Regarding:

Client Instructions:

Mailing address and project name missing on COC- TMC 1/25/24

16. Additional remarks:

17. Cooler Information

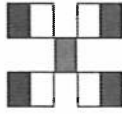
Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	-0.5	Good	Yes	Yogi		

Chain-of-Custody Record

Chain-of-Custody Record		Turn-Around Time: 5-day
Client: Ensolum		<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Attn: Stuart Hyde		Project Name: Giant Bloomfield Refinery
Mailing Address:		Project #: 07A2015003
Phone #: 970-903-1607		Project Manager: Stuart Hyde
email or Fax#: sh Hyde@ensolum.com		
QA/QC Package:		
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation: <input type="checkbox"/> Az Compliance		Sampler: Al Thomson
<input type="checkbox"/> NELAC <input type="checkbox"/> Other		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> EDD (Type)		# of Coolers: 1

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	Cooler Temp (Including CF): -0, 4.0, 1 = -0.5 (°C)
1-24	1040	Soil	GBR-54025-27'	1x4oz	Cool	2401A17	
	1050	Soil	GBR-54030-32'			009	
	1100		GBR-54035-37'			010	
	1110		GBR-54040-42'			011	
	1120		GBR-54045-47'			012	
	1130		GBR-54050-52'			013	
✓	1140	✓	GBR-54053-55'	✓	✓	014	

Date:	Time:	Relinquished by:	Received by:	Via:	Date:	Time:
6-24	1650	Al Thompson			1/24/24	1650
Date:	Time:	Relinquished by:	Received by:	Via:	Date:	Time:
12/1/24	1728	Christ Waters			1/25/24	0745



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks:

Please CC:
shyde@ensolum.com
athenson@ensolum.com



APPENDIX C

Groundwater Laboratory Analytical Reports



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 3/29/2024 10:30:23 AM

JOB DESCRIPTION

GBR

JOB NUMBER

885-831-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
3/29/2024 10:30:23 AM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: GBR

Laboratory Job ID: 885-831-1



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Definitions/Glossary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins Albuquerque

Case Narrative

Client: Ensolum LLC
Project: GBR

Job ID: 885-831-1

Job ID: 885-831-1Eurofins Albuquerque

Job Narrative
885-831-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/9/2024 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GRW-1

Lab Sample ID: 885-831-1

Date Collected: 03/07/24 11:00

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/15/24 22:02	1
Naphthalene	ND		2.0	ug/L			03/15/24 22:02	1
1-Methylnaphthalene	ND		4.0	ug/L			03/15/24 22:02	1
2-Methylnaphthalene	ND		4.0	ug/L			03/15/24 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		03/15/24 22:02	1
Toluene-d8 (Surr)	94		70 - 130		03/15/24 22:02	1
4-Bromofluorobenzene (Surr)	101		70 - 130		03/15/24 22:02	1
Dibromofluoromethane (Surr)	96		70 - 130		03/15/24 22:02	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.3		0.020	mg/L			03/12/24 16:40	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:15	1

Client Sample ID: GRW-2

Lab Sample ID: 885-831-2

Date Collected: 03/07/24 11:35

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/15/24 22:27	1
Naphthalene	ND		2.0	ug/L			03/15/24 22:27	1
1-Methylnaphthalene	ND		4.0	ug/L			03/15/24 22:27	1
2-Methylnaphthalene	ND		4.0	ug/L			03/15/24 22:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/15/24 22:27	1
Toluene-d8 (Surr)	95		70 - 130		03/15/24 22:27	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/15/24 22:27	1
Dibromofluoromethane (Surr)	101		70 - 130		03/15/24 22:27	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	7.2		0.020	mg/L			03/12/24 16:43	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:23	1

Client Sample ID: GRW-3

Lab Sample ID: 885-831-3

Date Collected: 03/07/24 12:15

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/15/24 22:51	1
Naphthalene	ND		2.0	ug/L			03/15/24 22:51	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GRW-3

Lab Sample ID: 885-831-3

Date Collected: 03/07/24 12:15

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			03/15/24 22:51	1
2-Methylnaphthalene	ND		4.0	ug/L			03/15/24 22:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130				03/15/24 22:51	1
Toluene-d8 (Surr)	95		70 - 130				03/15/24 22:51	1
4-Bromofluorobenzene (Surr)	99		70 - 130				03/15/24 22:51	1
Dibromofluoromethane (Surr)	99		70 - 130				03/15/24 22:51	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.6		0.020	mg/L			03/12/24 16:48	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:29	1

Client Sample ID: GRW-4

Lab Sample ID: 885-831-4

Date Collected: 03/07/24 12:45

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/15/24 23:40	5
Naphthalene	ND		10	ug/L			03/15/24 23:40	5
1-Methylnaphthalene	ND		20	ug/L			03/15/24 23:40	5
2-Methylnaphthalene	ND		20	ug/L			03/15/24 23:40	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				03/15/24 23:40	5
Toluene-d8 (Surr)	96		70 - 130				03/15/24 23:40	5
4-Bromofluorobenzene (Surr)	97		70 - 130				03/15/24 23:40	5
Dibromofluoromethane (Surr)	98		70 - 130				03/15/24 23:40	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.9		0.020	mg/L			03/12/24 16:51	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:32	1

Client Sample ID: GBR-8

Lab Sample ID: 885-831-5

Date Collected: 03/07/24 13:15

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/16/24 00:29	1
Naphthalene	ND		2.0	ug/L			03/16/24 00:29	1
1-Methylnaphthalene	ND		4.0	ug/L			03/16/24 00:29	1
2-Methylnaphthalene	ND		4.0	ug/L			03/16/24 00:29	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GBR-8

Lab Sample ID: 885-831-5

Date Collected: 03/07/24 13:15

Matrix: Water

Date Received: 03/09/24 08:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/16/24 00:29	1
Toluene-d8 (Surr)	96		70 - 130		03/16/24 00:29	1
4-Bromofluorobenzene (Surr)	100		70 - 130		03/16/24 00:29	1
Dibromofluoromethane (Surr)	98		70 - 130		03/16/24 00:29	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.8		0.020	mg/L			03/12/24 16:54	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:35	1

Client Sample ID: GRW-5

Lab Sample ID: 885-831-6

Date Collected: 03/07/24 14:30

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			03/16/24 00:53	2
Naphthalene	ND		4.0	ug/L			03/16/24 00:53	2
1-Methylnaphthalene	ND		8.0	ug/L			03/16/24 00:53	2
2-Methylnaphthalene	ND		8.0	ug/L			03/16/24 00:53	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		03/16/24 00:53	2
Toluene-d8 (Surr)	96		70 - 130		03/16/24 00:53	2
4-Bromofluorobenzene (Surr)	99		70 - 130		03/16/24 00:53	2
Dibromofluoromethane (Surr)	100		70 - 130		03/16/24 00:53	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	6.9		0.020	mg/L			03/12/24 17:06	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:47	1

Client Sample ID: GRW-6

Lab Sample ID: 885-831-7

Date Collected: 03/08/24 10:20

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/16/24 01:17	1
Naphthalene	ND		2.0	ug/L			03/16/24 01:17	1
1-Methylnaphthalene	ND		4.0	ug/L			03/16/24 01:17	1
2-Methylnaphthalene	ND		4.0	ug/L			03/16/24 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		03/16/24 01:17	1
Toluene-d8 (Surr)	95		70 - 130		03/16/24 01:17	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GRW-6

Lab Sample ID: 885-831-7

Date Collected: 03/08/24 10:20

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		03/16/24 01:17	1
Dibromofluoromethane (Surr)	102		70 - 130		03/16/24 01:17	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.7		0.020	mg/L			03/12/24 17:12	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:50	1

Client Sample ID: GBR-13

Lab Sample ID: 885-831-8

Date Collected: 03/08/24 10:50

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/16/24 03:43	5
Naphthalene	ND		10	ug/L			03/16/24 03:43	5
1-Methylnaphthalene	ND		20	ug/L			03/16/24 03:43	5
2-Methylnaphthalene	ND		20	ug/L			03/16/24 03:43	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		03/16/24 03:43	5
Toluene-d8 (Surr)	96		70 - 130		03/16/24 03:43	5
4-Bromofluorobenzene (Surr)	97		70 - 130		03/16/24 03:43	5
Dibromofluoromethane (Surr)	100		70 - 130		03/16/24 03:43	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.9		0.020	mg/L			03/12/24 17:15	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:53	1

Client Sample ID: GBR-20

Lab Sample ID: 885-831-9

Date Collected: 03/08/24 11:30

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/16/24 05:20	5
Naphthalene	ND		10	ug/L			03/16/24 05:20	5
1-Methylnaphthalene	ND		20	ug/L			03/16/24 05:20	5
2-Methylnaphthalene	ND		20	ug/L			03/16/24 05:20	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		03/16/24 05:20	5
Toluene-d8 (Surr)	96		70 - 130		03/16/24 05:20	5
4-Bromofluorobenzene (Surr)	101		70 - 130		03/16/24 05:20	5

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GBR-20

Lab Sample ID: 885-831-9

Date Collected: 03/08/24 11:30

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	96		70 - 130		03/16/24 05:20	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.57		0.0020	mg/L			03/12/24 15:50	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 13:56	1

Client Sample ID: GRW-9

Lab Sample ID: 885-831-10

Date Collected: 03/08/24 12:25

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			03/16/24 06:09	2
Naphthalene	ND		4.0	ug/L			03/16/24 06:09	2
1-Methylnaphthalene	ND		8.0	ug/L			03/16/24 06:09	2
2-Methylnaphthalene	ND		8.0	ug/L			03/16/24 06:09	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		03/16/24 06:09	2
Toluene-d8 (Surr)	96		70 - 130		03/16/24 06:09	2
4-Bromofluorobenzene (Surr)	100		70 - 130		03/16/24 06:09	2
Dibromofluoromethane (Surr)	98		70 - 130		03/16/24 06:09	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.53		0.0020	mg/L			03/12/24 15:54	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 14:36	1

Client Sample ID: GBR-7

Lab Sample ID: 885-831-11

Date Collected: 03/08/24 12:50

Matrix: Water

Date Received: 03/09/24 08:20

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/16/24 06:57	5
Naphthalene	ND		10	ug/L			03/16/24 06:57	5
1-Methylnaphthalene	ND		20	ug/L			03/16/24 06:57	5
2-Methylnaphthalene	ND		20	ug/L			03/16/24 06:57	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		03/16/24 06:57	5
Toluene-d8 (Surr)	96		70 - 130		03/16/24 06:57	5
4-Bromofluorobenzene (Surr)	121		70 - 130		03/16/24 06:57	5
Dibromofluoromethane (Surr)	101		70 - 130		03/16/24 06:57	5

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Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GBR-7
Date Collected: 03/08/24 12:50
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-11
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.3		0.020	mg/L			03/12/24 17:21	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 14:39	1

Client Sample ID: GBR-5
Date Collected: 03/08/24 13:10
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-12
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			03/16/24 07:46	2
Naphthalene	ND		4.0	ug/L			03/16/24 07:46	2
1-Methylnaphthalene	ND		8.0	ug/L			03/16/24 07:46	2
2-Methylnaphthalene	ND		8.0	ug/L			03/16/24 07:46	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		03/16/24 07:46	2
Toluene-d8 (Surr)	97		70 - 130		03/16/24 07:46	2
4-Bromofluorobenzene (Surr)	100		70 - 130		03/16/24 07:46	2
Dibromofluoromethane (Surr)	97		70 - 130		03/16/24 07:46	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	7.1		0.020	mg/L			03/12/24 17:24	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 14:42	1

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

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

Lab Sample ID: MB 885-1955/3

Matrix: Water

Analysis Batch: 1955

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/15/24 14:18	1
Naphthalene	ND		2.0	ug/L			03/15/24 14:18	1
1-Methylnaphthalene	ND		4.0	ug/L			03/15/24 14:18	1
2-Methylnaphthalene	ND		4.0	ug/L			03/15/24 14:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/15/24 14:18	1
Toluene-d8 (Surr)	96		70 - 130		03/15/24 14:18	1
4-Bromofluorobenzene (Surr)	100		70 - 130		03/15/24 14:18	1
Dibromofluoromethane (Surr)	101		70 - 130		03/15/24 14:18	1

Lab Sample ID: MB 885-1955/30

Matrix: Water

Analysis Batch: 1955

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/16/24 03:19	1
Naphthalene	ND		2.0	ug/L			03/16/24 03:19	1
1-Methylnaphthalene	ND		4.0	ug/L			03/16/24 03:19	1
2-Methylnaphthalene	ND		4.0	ug/L			03/16/24 03:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		03/16/24 03:19	1
Toluene-d8 (Surr)	95		70 - 130		03/16/24 03:19	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/16/24 03:19	1
Dibromofluoromethane (Surr)	101		70 - 130		03/16/24 03:19	1

Lab Sample ID: LCS 885-1955/2

Matrix: Water

Analysis Batch: 1955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	18.9		ug/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Lab Sample ID: LCS 885-1955/29

Matrix: Water

Analysis Batch: 1955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.4		ug/L		97	70 - 130

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

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

Lab Sample ID: LCS 885-1955/29

Matrix: Water

Analysis Batch: 1955

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Lab Sample ID: 885-831-8 MS

Matrix: Water

Analysis Batch: 1955

Client Sample ID: GBR-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		100	97.7		ug/L		97	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Lab Sample ID: 885-831-8 MSD

Matrix: Water

Analysis Batch: 1955

Client Sample ID: GBR-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		100	91.8		ug/L		91	70 - 130	6	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-1620/17

Matrix: Water

Analysis Batch: 1620

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			03/12/24 15:07	1

Lab Sample ID: LCS 885-1620/19

Matrix: Water

Analysis Batch: 1620

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.518		mg/L		104	85 - 115

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LLCS 885-1620/18
Matrix: Water
Analysis Batch: 1620

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00183	J	mg/L		91	50 - 150

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-2212/40
Matrix: Water
Analysis Batch: 2212

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/22/24 12:45	1

Lab Sample ID: LCS 885-2212/41
Matrix: Water
Analysis Batch: 2212

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0126		mg/L		101	85 - 115

Lab Sample ID: MRL 885-2212/10
Matrix: Water
Analysis Batch: 2212

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.000500	0.000475	J	mg/L		95	50 - 150

Lab Sample ID: 885-831-1 MS
Matrix: Water
Analysis Batch: 2212

Client Sample ID: GRW-1
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		0.0125	0.0116		mg/L		93	70 - 130

Lab Sample ID: 885-831-1 MSD
Matrix: Water
Analysis Batch: 2212

Client Sample ID: GRW-1
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		0.0125	0.0115		mg/L		92	70 - 130	1	20

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QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

GC/MS VOA

Analysis Batch: 1955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-831-1	GRW-1	Total/NA	Water	8260B	
885-831-2	GRW-2	Total/NA	Water	8260B	
885-831-3	GRW-3	Total/NA	Water	8260B	
885-831-4	GRW-4	Total/NA	Water	8260B	
885-831-5	GBR-8	Total/NA	Water	8260B	
885-831-6	GRW-5	Total/NA	Water	8260B	
885-831-7	GRW-6	Total/NA	Water	8260B	
885-831-8	GBR-13	Total/NA	Water	8260B	
885-831-9	GBR-20	Total/NA	Water	8260B	
885-831-10	GRW-9	Total/NA	Water	8260B	
885-831-11	GBR-7	Total/NA	Water	8260B	
885-831-12	GBR-5	Total/NA	Water	8260B	
MB 885-1955/3	Method Blank	Total/NA	Water	8260B	
MB 885-1955/30	Method Blank	Total/NA	Water	8260B	
LCS 885-1955/2	Lab Control Sample	Total/NA	Water	8260B	
LCS 885-1955/29	Lab Control Sample	Total/NA	Water	8260B	
885-831-8 MS	GBR-13	Total/NA	Water	8260B	
885-831-8 MSD	GBR-13	Total/NA	Water	8260B	

Metals

Analysis Batch: 1620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-831-1	GRW-1	Dissolved	Water	200.7 Rev 4.4	
885-831-2	GRW-2	Dissolved	Water	200.7 Rev 4.4	
885-831-3	GRW-3	Dissolved	Water	200.7 Rev 4.4	
885-831-4	GRW-4	Dissolved	Water	200.7 Rev 4.4	
885-831-5	GBR-8	Dissolved	Water	200.7 Rev 4.4	
885-831-6	GRW-5	Dissolved	Water	200.7 Rev 4.4	
885-831-7	GRW-6	Dissolved	Water	200.7 Rev 4.4	
885-831-8	GBR-13	Dissolved	Water	200.7 Rev 4.4	
885-831-9	GBR-20	Dissolved	Water	200.7 Rev 4.4	
885-831-10	GRW-9	Dissolved	Water	200.7 Rev 4.4	
885-831-11	GBR-7	Dissolved	Water	200.7 Rev 4.4	
885-831-12	GBR-5	Dissolved	Water	200.7 Rev 4.4	
MB 885-1620/17	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-1620/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-1620/18	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

Analysis Batch: 2212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-831-1	GRW-1	Dissolved	Water	200.8	
885-831-2	GRW-2	Dissolved	Water	200.8	
885-831-3	GRW-3	Dissolved	Water	200.8	
885-831-4	GRW-4	Dissolved	Water	200.8	
885-831-5	GBR-8	Dissolved	Water	200.8	
885-831-6	GRW-5	Dissolved	Water	200.8	
885-831-7	GRW-6	Dissolved	Water	200.8	
885-831-8	GBR-13	Dissolved	Water	200.8	
885-831-9	GBR-20	Dissolved	Water	200.8	
885-831-10	GRW-9	Dissolved	Water	200.8	

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QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Metals (Continued)

Analysis Batch: 2212 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-831-11	GBR-7	Dissolved	Water	200.8	
885-831-12	GBR-5	Dissolved	Water	200.8	
MB 885-2212/40	Method Blank	Total/NA	Water	200.8	
LCS 885-2212/41	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-2212/10	Lab Control Sample	Total/NA	Water	200.8	
885-831-1 MS	GRW-1	Dissolved	Water	200.8	
885-831-1 MSD	GRW-1	Dissolved	Water	200.8	
885-831-2 MS	GRW-2	Dissolved	Water	200.8	

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GRW-1
Date Collected: 03/07/24 11:00
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1955	CM	EET ALB	03/15/24 22:02
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 16:40
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:15

Client Sample ID: GRW-2
Date Collected: 03/07/24 11:35
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1955	CM	EET ALB	03/15/24 22:27
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 16:43
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:23

Client Sample ID: GRW-3
Date Collected: 03/07/24 12:15
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1955	CM	EET ALB	03/15/24 22:51
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 16:48
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:29

Client Sample ID: GRW-4
Date Collected: 03/07/24 12:45
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	1955	CM	EET ALB	03/15/24 23:40
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 16:51
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:32

Client Sample ID: GBR-8
Date Collected: 03/07/24 13:15
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1955	CM	EET ALB	03/16/24 00:29
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 16:54
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:35

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GRW-5
Date Collected: 03/07/24 14:30
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	1955	CM	EET ALB	03/16/24 00:53
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 17:06
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:47

Client Sample ID: GRW-6
Date Collected: 03/08/24 10:20
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1955	CM	EET ALB	03/16/24 01:17
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 17:12
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:50

Client Sample ID: GBR-13
Date Collected: 03/08/24 10:50
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	1955	CM	EET ALB	03/16/24 03:43
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 17:15
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:53

Client Sample ID: GBR-20
Date Collected: 03/08/24 11:30
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	1955	CM	EET ALB	03/16/24 05:20
Dissolved	Analysis	200.7 Rev 4.4		1	1620	VP	EET ALB	03/12/24 15:50
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 13:56

Client Sample ID: GRW-9
Date Collected: 03/08/24 12:25
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	1955	CM	EET ALB	03/16/24 06:09
Dissolved	Analysis	200.7 Rev 4.4		1	1620	VP	EET ALB	03/12/24 15:54
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 14:36

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Client Sample ID: GBR-7
Date Collected: 03/08/24 12:50
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	1955	CM	EET ALB	03/16/24 06:57
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 17:21
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 14:39

Client Sample ID: GBR-5
Date Collected: 03/08/24 13:10
Date Received: 03/09/24 08:20

Lab Sample ID: 885-831-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	1955	CM	EET ALB	03/16/24 07:46
Dissolved	Analysis	200.7 Rev 4.4		10	1620	VP	EET ALB	03/12/24 17:24
Dissolved	Analysis	200.8		1	2212	BV	EET ALB	03/22/24 14:42

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-831-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-831-1

Login Number: 831

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 4/2/2024 5:07:26 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-931-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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4/2/2024 5:07:26 PM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-931-1

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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Qualifiers

Metals	
Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-931-1

Job ID: 885-931-1Eurofins Albuquerque

Job Narrative
885-931-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/12/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.9°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Client Sample ID: GBR-34

Lab Sample ID: 885-931-1

Date Collected: 03/11/24 11:50

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/18/24 17:22	1
Naphthalene	ND		2.0	ug/L			03/18/24 17:22	1
1-Methylnaphthalene	ND		4.0	ug/L			03/18/24 17:22	1
2-Methylnaphthalene	ND		4.0	ug/L			03/18/24 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		03/18/24 17:22	1
Toluene-d8 (Surr)	96		70 - 130		03/18/24 17:22	1
4-Bromofluorobenzene (Surr)	93		70 - 130		03/18/24 17:22	1
Dibromofluoromethane (Surr)	100		70 - 130		03/18/24 17:22	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.3		0.010	mg/L			03/14/24 10:14	5

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:12	1

Client Sample ID: GRW-12

Lab Sample ID: 885-931-2

Date Collected: 03/11/24 13:45

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/18/24 17:46	1
Naphthalene	ND		2.0	ug/L			03/18/24 17:46	1
1-Methylnaphthalene	ND		4.0	ug/L			03/18/24 17:46	1
2-Methylnaphthalene	ND		4.0	ug/L			03/18/24 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		03/18/24 17:46	1
Toluene-d8 (Surr)	94		70 - 130		03/18/24 17:46	1
4-Bromofluorobenzene (Surr)	93		70 - 130		03/18/24 17:46	1
Dibromofluoromethane (Surr)	101		70 - 130		03/18/24 17:46	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.18		0.0020	mg/L			03/14/24 09:08	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:19	1

Client Sample ID: GBR-25

Lab Sample ID: 885-931-3

Date Collected: 03/11/24 14:10

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/18/24 18:10	5
Naphthalene	ND		10	ug/L			03/18/24 18:10	5

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Client Sample ID: GBR-25

Lab Sample ID: 885-931-3

Date Collected: 03/11/24 14:10

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		20	ug/L			03/18/24 18:10	5
2-Methylnaphthalene	ND		20	ug/L			03/18/24 18:10	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				03/18/24 18:10	5
Toluene-d8 (Surr)	98		70 - 130				03/18/24 18:10	5
4-Bromofluorobenzene (Surr)	102		70 - 130				03/18/24 18:10	5
Dibromofluoromethane (Surr)	102		70 - 130				03/18/24 18:10	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.73		0.0020	mg/L			03/14/24 09:19	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0031		0.00050	mg/L			03/25/24 12:24	1

Client Sample ID: GBR-22

Lab Sample ID: 885-931-4

Date Collected: 03/11/24 12:27

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/19/24 15:09	5
Naphthalene	ND		10	ug/L			03/19/24 15:09	5
1-Methylnaphthalene	21		20	ug/L			03/19/24 15:09	5
2-Methylnaphthalene	ND		20	ug/L			03/19/24 15:09	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				03/19/24 15:09	5
Toluene-d8 (Surr)	93		70 - 130				03/19/24 15:09	5
4-Bromofluorobenzene (Surr)	96		70 - 130				03/19/24 15:09	5
Dibromofluoromethane (Surr)	101		70 - 130				03/19/24 15:09	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.6		0.010	mg/L			03/14/24 10:09	5

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00076		0.00050	mg/L			03/25/24 12:26	1

Client Sample ID: GBR-21D

Lab Sample ID: 885-931-5

Date Collected: 03/11/24 14:40

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/18/24 18:59	5
Naphthalene	ND		10	ug/L			03/18/24 18:59	5
1-Methylnaphthalene	ND		20	ug/L			03/18/24 18:59	5
2-Methylnaphthalene	ND		20	ug/L			03/18/24 18:59	5

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Client Sample ID: GBR-21D

Lab Sample ID: 885-931-5

Date Collected: 03/11/24 14:40

Matrix: Water

Date Received: 03/12/24 07:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		03/18/24 18:59	5
Toluene-d8 (Surr)	98		70 - 130		03/18/24 18:59	5
4-Bromofluorobenzene (Surr)	97		70 - 130		03/18/24 18:59	5
Dibromofluoromethane (Surr)	103		70 - 130		03/18/24 18:59	5

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.15		0.0020	mg/L			03/14/24 09:26	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:28	1

Client Sample ID: GRW-11

Lab Sample ID: 885-931-6

Date Collected: 03/11/24 15:15

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/18/24 19:23	1
Naphthalene	ND		2.0	ug/L			03/18/24 19:23	1
1-Methylnaphthalene	ND		4.0	ug/L			03/18/24 19:23	1
2-Methylnaphthalene	ND		4.0	ug/L			03/18/24 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		03/18/24 19:23	1
Toluene-d8 (Surr)	96		70 - 130		03/18/24 19:23	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/18/24 19:23	1
Dibromofluoromethane (Surr)	100		70 - 130		03/18/24 19:23	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.6		0.020	mg/L			03/14/24 10:12	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:35	1

Client Sample ID: GBR-39

Lab Sample ID: 885-931-7

Date Collected: 03/11/24 15:40

Matrix: Water

Date Received: 03/12/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/18/24 19:48	1
Naphthalene	ND		2.0	ug/L			03/18/24 19:48	1
1-Methylnaphthalene	ND		4.0	ug/L			03/18/24 19:48	1
2-Methylnaphthalene	ND		4.0	ug/L			03/18/24 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		03/18/24 19:48	1
Toluene-d8 (Surr)	96		70 - 130		03/18/24 19:48	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Client Sample ID: GBR-39

Date Collected: 03/11/24 15:40

Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-7

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	99		70 - 130				03/18/24 19:48	1	
Dibromofluoromethane (Surr)	103		70 - 130				03/18/24 19:48	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	ND		0.0020	mg/L			03/14/24 09:39	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			03/25/24 12:38	1	

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

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

Lab Sample ID: MB 885-1934/3

Matrix: Water

Analysis Batch: 1934

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/18/24 12:54	1
Naphthalene	ND		2.0	ug/L			03/18/24 12:54	1
1-Methylnaphthalene	ND		4.0	ug/L			03/18/24 12:54	1
2-Methylnaphthalene	ND		4.0	ug/L			03/18/24 12:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/18/24 12:54	1
Toluene-d8 (Surr)	95		70 - 130		03/18/24 12:54	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/18/24 12:54	1
Dibromofluoromethane (Surr)	101		70 - 130		03/18/24 12:54	1

Lab Sample ID: LCS 885-1934/2

Matrix: Water

Analysis Batch: 1934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	18.7		ug/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130

Lab Sample ID: MB 885-2011/3

Matrix: Water

Analysis Batch: 2011

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/19/24 13:31	1
Naphthalene	ND		2.0	ug/L			03/19/24 13:31	1
1-Methylnaphthalene	ND		4.0	ug/L			03/19/24 13:31	1
2-Methylnaphthalene	ND		4.0	ug/L			03/19/24 13:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		03/19/24 13:31	1
Toluene-d8 (Surr)	94		70 - 130		03/19/24 13:31	1
4-Bromofluorobenzene (Surr)	94		70 - 130		03/19/24 13:31	1
Dibromofluoromethane (Surr)	96		70 - 130		03/19/24 13:31	1

Lab Sample ID: LCS 885-2011/2

Matrix: Water

Analysis Batch: 2011

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	18.7		ug/L		93	70 - 130

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

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

Lab Sample ID: LCS 885-2011/2

Matrix: Water

Analysis Batch: 2011

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-1742/20

Matrix: Water

Analysis Batch: 1742

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB							
	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Manganese	ND		0.0020	mg/L			03/14/24 08:43		1

Lab Sample ID: LCS 885-1742/22

Matrix: Water

Analysis Batch: 1742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike	LCS	LCS				%Rec
			Added	Result	Qualifier	Unit	D	%Rec	Limits
Manganese			0.500	0.531		mg/L		106	85 - 115

Lab Sample ID: LLCS 885-1742/21

Matrix: Water

Analysis Batch: 1742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike	LLCS	LLCS				%Rec
			Added	Result	Qualifier	Unit	D	%Rec	Limits
Manganese			0.00200	0.00201		mg/L		101	50 - 150

Lab Sample ID: 885-931-7 MS

Matrix: Water

Analysis Batch: 1742

Client Sample ID: GBR-39

Prep Type: Dissolved

Analyte	Sample	Sample	Spike	MS	MS				%Rec
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Manganese	ND		0.500	0.416		mg/L		83	70 - 130

Lab Sample ID: 885-931-7 MSD

Matrix: Water

Analysis Batch: 1742

Client Sample ID: GBR-39

Prep Type: Dissolved

Analyte	Sample	Sample	Spike	MSD	MSD				%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Manganese	ND		0.500	0.418		mg/L		83	70 - 130	1	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-2280/36

Matrix: Water

Analysis Batch: 2280

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB							
	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Lead	ND		0.00050	mg/L			03/25/24 12:02		1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 885-2280/37			Client Sample ID: Lab Control Sample									
Matrix: Water			Prep Type: Total/NA									
Analysis Batch: 2280												
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits			
Lead			0.0125	0.0131		mg/L		105	85 - 115			

Lab Sample ID: MRL 885-2280/34			Client Sample ID: Lab Control Sample									
Matrix: Water			Prep Type: Total/NA									
Analysis Batch: 2280												
Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits			
Lead			0.000500	0.000489	J	mg/L		98	50 - 150			

Lab Sample ID: 885-931-1 MS			Client Sample ID: GBR-34									
Matrix: Water			Prep Type: Dissolved									
Analysis Batch: 2280												
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits			
Lead	ND		0.0125	0.0118		mg/L		94	70 - 130			

Lab Sample ID: 885-931-1 MSD			Client Sample ID: GBR-34									
Matrix: Water			Prep Type: Dissolved									
Analysis Batch: 2280												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit	
Lead	ND		0.0125	0.0121		mg/L		97	70 - 130	2	20	

Lab Sample ID: 885-931-2 MS			Client Sample ID: GRW-12									
Matrix: Water			Prep Type: Dissolved									
Analysis Batch: 2280												
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits			
Lead	ND		0.0125	0.0115		mg/L		92	70 - 130			

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

GC/MS VOA

Analysis Batch: 1934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-931-1	GBR-34	Total/NA	Water	8260B	
885-931-2	GRW-12	Total/NA	Water	8260B	
885-931-3	GBR-25	Total/NA	Water	8260B	
885-931-5	GBR-21D	Total/NA	Water	8260B	
885-931-6	GRW-11	Total/NA	Water	8260B	
885-931-7	GBR-39	Total/NA	Water	8260B	
MB 885-1934/3	Method Blank	Total/NA	Water	8260B	
LCS 885-1934/2	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 2011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-931-4	GBR-22	Total/NA	Water	8260B	
MB 885-2011/3	Method Blank	Total/NA	Water	8260B	
LCS 885-2011/2	Lab Control Sample	Total/NA	Water	8260B	

Metals

Analysis Batch: 1742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-931-1	GBR-34	Dissolved	Water	200.7 Rev 4.4	
885-931-2	GRW-12	Dissolved	Water	200.7 Rev 4.4	
885-931-3	GBR-25	Dissolved	Water	200.7 Rev 4.4	
885-931-4	GBR-22	Dissolved	Water	200.7 Rev 4.4	
885-931-5	GBR-21D	Dissolved	Water	200.7 Rev 4.4	
885-931-6	GRW-11	Dissolved	Water	200.7 Rev 4.4	
885-931-7	GBR-39	Dissolved	Water	200.7 Rev 4.4	
MB 885-1742/20	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-1742/22	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-1742/21	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-931-7 MS	GBR-39	Dissolved	Water	200.7 Rev 4.4	
885-931-7 MSD	GBR-39	Dissolved	Water	200.7 Rev 4.4	

Analysis Batch: 2280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-931-1	GBR-34	Dissolved	Water	200.8	
885-931-2	GRW-12	Dissolved	Water	200.8	
885-931-3	GBR-25	Dissolved	Water	200.8	
885-931-4	GBR-22	Dissolved	Water	200.8	
885-931-5	GBR-21D	Dissolved	Water	200.8	
885-931-6	GRW-11	Dissolved	Water	200.8	
885-931-7	GBR-39	Dissolved	Water	200.8	
MB 885-2280/36	Method Blank	Total/NA	Water	200.8	
LCS 885-2280/37	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-2280/34	Lab Control Sample	Total/NA	Water	200.8	
885-931-1 MS	GBR-34	Dissolved	Water	200.8	
885-931-1 MSD	GBR-34	Dissolved	Water	200.8	
885-931-2 MS	GRW-12	Dissolved	Water	200.8	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Client Sample ID: GBR-34
Date Collected: 03/11/24 11:50
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1934	RA	EET ALB	03/18/24 17:22
Dissolved	Analysis	200.7 Rev 4.4		5	1742	VP	EET ALB	03/14/24 10:14
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:12

Client Sample ID: GRW-12
Date Collected: 03/11/24 13:45
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1934	RA	EET ALB	03/18/24 17:46
Dissolved	Analysis	200.7 Rev 4.4		1	1742	VP	EET ALB	03/14/24 09:08
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:19

Client Sample ID: GBR-25
Date Collected: 03/11/24 14:10
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	1934	RA	EET ALB	03/18/24 18:10
Dissolved	Analysis	200.7 Rev 4.4		1	1742	VP	EET ALB	03/14/24 09:19
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:24

Client Sample ID: GBR-22
Date Collected: 03/11/24 12:27
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	2011	RA	EET ALB	03/19/24 15:09
Dissolved	Analysis	200.7 Rev 4.4		5	1742	VP	EET ALB	03/14/24 10:09
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:26

Client Sample ID: GBR-21D
Date Collected: 03/11/24 14:40
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	1934	RA	EET ALB	03/18/24 18:59
Dissolved	Analysis	200.7 Rev 4.4		1	1742	VP	EET ALB	03/14/24 09:26
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:28

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Client Sample ID: GRW-11
Date Collected: 03/11/24 15:15
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1934	RA	EET ALB	03/18/24 19:23
Dissolved	Analysis	200.7 Rev 4.4		10	1742	VP	EET ALB	03/14/24 10:12
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:35

Client Sample ID: GBR-39
Date Collected: 03/11/24 15:40
Date Received: 03/12/24 07:15

Lab Sample ID: 885-931-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	1934	RA	EET ALB	03/18/24 19:48
Dissolved	Analysis	200.7 Rev 4.4		1	1742	VP	EET ALB	03/14/24 09:39
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:38

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-931-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-931-1

Login Number: 931

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-931-1

Login Number: 931

List Number: 2

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 4/2/2024 4:20:49 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-1153-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-1153-1

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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-1153-1

Job ID: 885-1153-1

Eurofins Albuquerque

Job Narrative 885-1153-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/14/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1°C and 2.3°C.

GC/MS VOA

Method 8260B: The following sample was diluted due to the nature of the sample matrix: GBR-35 (885-1153-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 200.7 - Dissolved: Job 885-1153-5 failed the IS radial. however, the job only requires Mn which is read axially on the instrument. Thus, the data was not impacted by the IS radial failure.

GBR-18 (885-1153-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GBR-24D

Lab Sample ID: 885-1153-1

Date Collected: 03/12/24 11:00

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 12:57	1
Naphthalene	ND		2.0	ug/L			03/21/24 12:57	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 12:57	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 12:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		03/21/24 12:57	1
Toluene-d8 (Surr)	88		70 - 130		03/21/24 12:57	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/21/24 12:57	1
Dibromofluoromethane (Surr)	105		70 - 130		03/21/24 12:57	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.67		0.0020	mg/L			03/15/24 08:37	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:40	1

Client Sample ID: GRW-13

Lab Sample ID: 885-1153-2

Date Collected: 03/12/24 11:45

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 14:10	1
Naphthalene	ND		2.0	ug/L			03/21/24 14:10	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 14:10	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 14:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/21/24 14:10	1
Toluene-d8 (Surr)	88		70 - 130		03/21/24 14:10	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/21/24 14:10	1
Dibromofluoromethane (Surr)	100		70 - 130		03/21/24 14:10	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.80		0.0020	mg/L			03/15/24 08:41	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:42	1

Client Sample ID: GRW-10

Lab Sample ID: 885-1153-3

Date Collected: 03/12/24 12:55

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 14:35	1
Naphthalene	ND		2.0	ug/L			03/21/24 14:35	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GRW-10

Lab Sample ID: 885-1153-3

Date Collected: 03/12/24 12:55

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 14:35	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 14:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				03/21/24 14:35	1
Toluene-d8 (Surr)	88		70 - 130				03/21/24 14:35	1
4-Bromofluorobenzene (Surr)	100		70 - 130				03/21/24 14:35	1
Dibromofluoromethane (Surr)	99		70 - 130				03/21/24 14:35	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.57		0.0020	mg/L			03/15/24 08:44	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:44	1

Client Sample ID: GBR-31

Lab Sample ID: 885-1153-4

Date Collected: 03/12/24 14:00

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 14:59	1
Naphthalene	ND		2.0	ug/L			03/21/24 14:59	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 14:59	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 14:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				03/21/24 14:59	1
Toluene-d8 (Surr)	93		70 - 130				03/21/24 14:59	1
4-Bromofluorobenzene (Surr)	98		70 - 130				03/21/24 14:59	1
Dibromofluoromethane (Surr)	104		70 - 130				03/21/24 14:59	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.2		0.010	mg/L			03/15/24 09:52	5

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:47	1

Client Sample ID: GBR-18

Lab Sample ID: 885-1153-5

Date Collected: 03/12/24 14:40

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 15:24	1
Naphthalene	ND		2.0	ug/L			03/21/24 15:24	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 15:24	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 15:24	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GBR-18

Lab Sample ID: 885-1153-5

Date Collected: 03/12/24 14:40

Matrix: Water

Date Received: 03/14/24 07:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		03/21/24 15:24	1
Toluene-d8 (Surr)	88		70 - 130		03/21/24 15:24	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/21/24 15:24	1
Dibromofluoromethane (Surr)	101		70 - 130		03/21/24 15:24	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.010		0.0020	mg/L			03/15/24 08:50	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0025	mg/L			03/25/24 13:24	5

Client Sample ID: GBR-54

Lab Sample ID: 885-1153-6

Date Collected: 03/13/24 10:30

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 15:48	1
Naphthalene	ND		2.0	ug/L			03/21/24 15:48	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 15:48	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/21/24 15:48	1
Toluene-d8 (Surr)	88		70 - 130		03/21/24 15:48	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/21/24 15:48	1
Dibromofluoromethane (Surr)	103		70 - 130		03/21/24 15:48	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.4		0.010	mg/L			03/15/24 09:55	5

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:51	1

Client Sample ID: GBR-41R

Lab Sample ID: 885-1153-7

Date Collected: 03/13/24 11:15

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 16:13	1
Naphthalene	ND		2.0	ug/L			03/21/24 16:13	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 16:13	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/21/24 16:13	1
Toluene-d8 (Surr)	89		70 - 130		03/21/24 16:13	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GBR-41R

Lab Sample ID: 885-1153-7

Date Collected: 03/13/24 11:15

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		03/21/24 16:13	1
Dibromofluoromethane (Surr)	101		70 - 130		03/21/24 16:13	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.6		0.020	mg/L			03/15/24 10:00	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:54	1

Client Sample ID: GBR-35

Lab Sample ID: 885-1153-8

Date Collected: 03/13/24 12:30

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.0	ug/L			03/21/24 17:01	5
Naphthalene	21		10	ug/L			03/21/24 17:01	5
1-Methylnaphthalene	290		20	ug/L			03/21/24 17:01	5
2-Methylnaphthalene	ND		20	ug/L			03/21/24 17:01	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		03/21/24 17:01	5
Toluene-d8 (Surr)	98		70 - 130		03/21/24 17:01	5
4-Bromofluorobenzene (Surr)	107		70 - 130		03/21/24 17:01	5
Dibromofluoromethane (Surr)	98		70 - 130		03/21/24 17:01	5

Client Sample ID: GBR-50

Lab Sample ID: 885-1153-9

Date Collected: 03/13/24 13:10

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 17:50	1
Naphthalene	ND		2.0	ug/L			03/21/24 17:50	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 17:50	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		03/21/24 17:50	1
Toluene-d8 (Surr)	93		70 - 130		03/21/24 17:50	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/21/24 17:50	1
Dibromofluoromethane (Surr)	99		70 - 130		03/21/24 17:50	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.038		0.0020	mg/L			03/15/24 09:06	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GBR-50

Lab Sample ID: 885-1153-9

Date Collected: 03/13/24 13:10

Matrix: Water

Date Received: 03/14/24 07:15

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:56	1

Client Sample ID: SHS-13

Lab Sample ID: 885-1153-10

Date Collected: 03/13/24 13:50

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 18:14	1
Naphthalene	ND		2.0	ug/L			03/21/24 18:14	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 18:14	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/21/24 18:14	1
Toluene-d8 (Surr)	94		70 - 130		03/21/24 18:14	1
4-Bromofluorobenzene (Surr)	97		70 - 130		03/21/24 18:14	1
Dibromofluoromethane (Surr)	103		70 - 130		03/21/24 18:14	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.5		0.020	mg/L			03/15/24 10:03	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:03	1

Client Sample ID: SHS-9

Lab Sample ID: 885-1153-11

Date Collected: 03/13/24 14:30

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 18:39	1
Naphthalene	ND		2.0	ug/L			03/21/24 18:39	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 18:39	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		03/21/24 18:39	1
Toluene-d8 (Surr)	98		70 - 130		03/21/24 18:39	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/21/24 18:39	1
Dibromofluoromethane (Surr)	99		70 - 130		03/21/24 18:39	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.11		0.0020	mg/L			03/15/24 09:13	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:05	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

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

Lab Sample ID: MB 885-2172/3

Matrix: Water

Analysis Batch: 2172

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 12:33	1
Naphthalene	ND		2.0	ug/L			03/21/24 12:33	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 12:33	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 12:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/21/24 12:33	1
Toluene-d8 (Surr)	95		70 - 130		03/21/24 12:33	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/21/24 12:33	1
Dibromofluoromethane (Surr)	102		70 - 130		03/21/24 12:33	1

Lab Sample ID: STOBLK 885-2172/25

Matrix: Water

Analysis Batch: 2172

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	STOBLK Result	STOBLK Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 22:19	1
Naphthalene	ND		2.0	ug/L			03/21/24 22:19	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 22:19	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 22:19	1

Surrogate	STOBLK %Recovery	STOBLK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		03/21/24 22:19	1
Toluene-d8 (Surr)	95		70 - 130		03/21/24 22:19	1
4-Bromofluorobenzene (Surr)	97		70 - 130		03/21/24 22:19	1
Dibromofluoromethane (Surr)	100		70 - 130		03/21/24 22:19	1

Lab Sample ID: STOBLK 885-2172/26

Matrix: Water

Analysis Batch: 2172

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	STOBLK Result	STOBLK Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 22:43	1
Naphthalene	ND		2.0	ug/L			03/21/24 22:43	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 22:43	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 22:43	1

Surrogate	STOBLK %Recovery	STOBLK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		03/21/24 22:43	1
Toluene-d8 (Surr)	94		70 - 130		03/21/24 22:43	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/21/24 22:43	1
Dibromofluoromethane (Surr)	99		70 - 130		03/21/24 22:43	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

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

Lab Sample ID: LCS 885-2172/2

Matrix: Water

Analysis Batch: 2172

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			20.1	23.3		ug/L		116	70 - 130		
		LCS	LCS								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		103		70 - 130							
Toluene-d8 (Surr)		90		70 - 130							
4-Bromofluorobenzene (Surr)		100		70 - 130							
Dibromofluoromethane (Surr)		102		70 - 130							

Lab Sample ID: 885-1153-1 MS

Matrix: Water

Analysis Batch: 2172

Client Sample ID: GBR-24D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		20.1	19.7		ug/L		98	70 - 130		
		MS	MS								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		97		70 - 130							
Toluene-d8 (Surr)		89		70 - 130							
4-Bromofluorobenzene (Surr)		98		70 - 130							
Dibromofluoromethane (Surr)		99		70 - 130							

Lab Sample ID: 885-1153-1 MSD

Matrix: Water

Analysis Batch: 2172

Client Sample ID: GBR-24D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	19.3		ug/L		96	70 - 130	2	20
		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		102		70 - 130							
Toluene-d8 (Surr)		95		70 - 130							
4-Bromofluorobenzene (Surr)		100		70 - 130							
Dibromofluoromethane (Surr)		103		70 - 130							

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-1773/23

Matrix: Water

Analysis Batch: 1773

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			03/15/24 08:30	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 885-1773/25
Matrix: Water
Analysis Batch: 1773

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.497		mg/L		99	85 - 115

Lab Sample ID: LLCS 885-1773/24
Matrix: Water
Analysis Batch: 1773

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00191	J	mg/L		95	50 - 150

Lab Sample ID: 885-1153-11 MS
Matrix: Water
Analysis Batch: 1773

Client Sample ID: SHS-9
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.11		0.500	0.582		mg/L		94	70 - 130

Lab Sample ID: 885-1153-11 MSD
Matrix: Water
Analysis Batch: 1773

Client Sample ID: SHS-9
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.11		0.500	0.526		mg/L		83	70 - 130	10	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-2280/36
Matrix: Water
Analysis Batch: 2280

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 12:02	1

Lab Sample ID: LCS 885-2280/37
Matrix: Water
Analysis Batch: 2280

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0131		mg/L		105	85 - 115

Lab Sample ID: MRL 885-2280/34
Matrix: Water
Analysis Batch: 2280

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.000500	0.000489	J	mg/L		98	50 - 150

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QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

GC/MS VOA

Analysis Batch: 2172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1153-1	GBR-24D	Total/NA	Water	8260B	
885-1153-2	GRW-13	Total/NA	Water	8260B	
885-1153-3	GRW-10	Total/NA	Water	8260B	
885-1153-4	GBR-31	Total/NA	Water	8260B	
885-1153-5	GBR-18	Total/NA	Water	8260B	
885-1153-6	GBR-54	Total/NA	Water	8260B	
885-1153-7	GBR-41R	Total/NA	Water	8260B	
885-1153-8	GBR-35	Total/NA	Water	8260B	
885-1153-9	GBR-50	Total/NA	Water	8260B	
885-1153-10	SHS-13	Total/NA	Water	8260B	
885-1153-11	SHS-9	Total/NA	Water	8260B	
MB 885-2172/3	Method Blank	Total/NA	Water	8260B	
STOBLK 885-2172/25	Method Blank	Total/NA	Water	8260B	
STOBLK 885-2172/26	Method Blank	Total/NA	Water	8260B	
LCS 885-2172/2	Lab Control Sample	Total/NA	Water	8260B	
885-1153-1 MS	GBR-24D	Total/NA	Water	8260B	
885-1153-1 MSD	GBR-24D	Total/NA	Water	8260B	

Metals

Analysis Batch: 1773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1153-1	GBR-24D	Dissolved	Water	200.7 Rev 4.4	
885-1153-2	GRW-13	Dissolved	Water	200.7 Rev 4.4	
885-1153-3	GRW-10	Dissolved	Water	200.7 Rev 4.4	
885-1153-4	GBR-31	Dissolved	Water	200.7 Rev 4.4	
885-1153-5	GBR-18	Dissolved	Water	200.7 Rev 4.4	
885-1153-6	GBR-54	Dissolved	Water	200.7 Rev 4.4	
885-1153-7	GBR-41R	Dissolved	Water	200.7 Rev 4.4	
885-1153-9	GBR-50	Dissolved	Water	200.7 Rev 4.4	
885-1153-10	SHS-13	Dissolved	Water	200.7 Rev 4.4	
885-1153-11	SHS-9	Dissolved	Water	200.7 Rev 4.4	
MB 885-1773/23	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-1773/25	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-1773/24	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-1153-11 MS	SHS-9	Dissolved	Water	200.7 Rev 4.4	
885-1153-11 MSD	SHS-9	Dissolved	Water	200.7 Rev 4.4	

Analysis Batch: 2280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1153-1	GBR-24D	Dissolved	Water	200.8	
885-1153-2	GRW-13	Dissolved	Water	200.8	
885-1153-3	GRW-10	Dissolved	Water	200.8	
885-1153-4	GBR-31	Dissolved	Water	200.8	
885-1153-5	GBR-18	Dissolved	Water	200.8	
885-1153-6	GBR-54	Dissolved	Water	200.8	
885-1153-7	GBR-41R	Dissolved	Water	200.8	
885-1153-9	GBR-50	Dissolved	Water	200.8	
885-1153-10	SHS-13	Dissolved	Water	200.8	
885-1153-11	SHS-9	Dissolved	Water	200.8	
MB 885-2280/36	Method Blank	Total/NA	Water	200.8	

Eurofins Albuquerque

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Metals (Continued)

Analysis Batch: 2280 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-2280/37	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-2280/34	Lab Control Sample	Total/NA	Water	200.8	

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Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GBR-24D

Date Collected: 03/12/24 11:00

Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 12:57
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 08:37
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:40

Client Sample ID: GRW-13

Date Collected: 03/12/24 11:45

Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 14:10
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 08:41
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:42

Client Sample ID: GRW-10

Date Collected: 03/12/24 12:55

Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 14:35
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 08:44
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:44

Client Sample ID: GBR-31

Date Collected: 03/12/24 14:00

Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 14:59
Dissolved	Analysis	200.7 Rev 4.4		5	1773	VP	EET ALB	03/15/24 09:52
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:47

Client Sample ID: GBR-18

Date Collected: 03/12/24 14:40

Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 15:24
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 08:50
Dissolved	Analysis	200.8		5	2280	BV	EET ALB	03/25/24 13:24

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Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: GBR-54
Date Collected: 03/13/24 10:30
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 15:48
Dissolved	Analysis	200.7 Rev 4.4		5	1773	VP	EET ALB	03/15/24 09:55
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:51

Client Sample ID: GBR-41R
Date Collected: 03/13/24 11:15
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 16:13
Dissolved	Analysis	200.7 Rev 4.4		10	1773	VP	EET ALB	03/15/24 10:00
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:54

Client Sample ID: GBR-35
Date Collected: 03/13/24 12:30
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	2172	CM	EET ALB	03/21/24 17:01

Client Sample ID: GBR-50
Date Collected: 03/13/24 13:10
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 17:50
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:06
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 12:56

Client Sample ID: SHS-13
Date Collected: 03/13/24 13:50
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 18:14
Dissolved	Analysis	200.7 Rev 4.4		10	1773	VP	EET ALB	03/15/24 10:03
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:03

Client Sample ID: SHS-9
Date Collected: 03/13/24 14:30
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2172	CM	EET ALB	03/21/24 18:39
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:13

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Client Sample ID: SHS-9
Date Collected: 03/13/24 14:30
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1153-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:05

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1153-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-1153-1

Login Number: 1153

List Number: 1

Creator: Proctor, Nancy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
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JOB DESCRIPTION

GBR

JOB NUMBER

885-1156-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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4/2/2024 4:37:22 PM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-1156-1



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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
P2	The sample was received with pH>2

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⌘	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-1156-1

Job ID: 885-1156-1Eurofins Albuquerque

Job Narrative
885-1156-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/14/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Client Sample ID: GBR-30

Lab Sample ID: 885-1156-1

Date Collected: 03/12/24 12:20

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/20/24 22:00	1
Naphthalene	ND		2.0	ug/L			03/20/24 22:00	1
1-Methylnaphthalene	ND		4.0	ug/L			03/20/24 22:00	1
2-Methylnaphthalene	ND		4.0	ug/L			03/20/24 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		03/20/24 22:00	1
Toluene-d8 (Surr)	92		70 - 130		03/20/24 22:00	1
4-Bromofluorobenzene (Surr)	93		70 - 130		03/20/24 22:00	1
Dibromofluoromethane (Surr)	98		70 - 130		03/20/24 22:00	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.27		0.0020	mg/L			03/15/24 09:23	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:14	1

Client Sample ID: GBR-52

Lab Sample ID: 885-1156-2

Date Collected: 03/12/24 14:00

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/20/24 22:25	1
Naphthalene	ND		2.0	ug/L			03/20/24 22:25	1
1-Methylnaphthalene	ND		4.0	ug/L			03/20/24 22:25	1
2-Methylnaphthalene	ND		4.0	ug/L			03/20/24 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		03/20/24 22:25	1
Toluene-d8 (Surr)	94		70 - 130		03/20/24 22:25	1
4-Bromofluorobenzene (Surr)	92		70 - 130		03/20/24 22:25	1
Dibromofluoromethane (Surr)	101		70 - 130		03/20/24 22:25	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.031		0.0020	mg/L			03/15/24 09:33	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:21	1

Client Sample ID: GBR-32

Lab Sample ID: 885-1156-3

Date Collected: 03/12/24 15:30

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/20/24 22:49	1
Naphthalene	ND		2.0	ug/L			03/20/24 22:49	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Client Sample ID: GBR-32

Lab Sample ID: 885-1156-3

Date Collected: 03/12/24 15:30

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			03/20/24 22:49	1
2-Methylnaphthalene	ND		4.0	ug/L			03/20/24 22:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				03/20/24 22:49	1
Toluene-d8 (Surr)	93		70 - 130				03/20/24 22:49	1
4-Bromofluorobenzene (Surr)	90		70 - 130				03/20/24 22:49	1
Dibromofluoromethane (Surr)	101		70 - 130				03/20/24 22:49	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.88		0.0020	mg/L			03/15/24 09:36	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:33	1

Client Sample ID: GBR-48

Lab Sample ID: 885-1156-4

Date Collected: 03/13/24 11:00

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 01:15	1
Naphthalene	ND		2.0	ug/L			03/21/24 01:15	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 01:15	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 01:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130				03/21/24 01:15	1
Toluene-d8 (Surr)	91		70 - 130				03/21/24 01:15	1
4-Bromofluorobenzene (Surr)	93		70 - 130				03/21/24 01:15	1
Dibromofluoromethane (Surr)	103		70 - 130				03/21/24 01:15	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.0022		0.0020	mg/L			03/15/24 09:45	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:35	1

Client Sample ID: GBR-11

Lab Sample ID: 885-1156-5

Date Collected: 03/13/24 15:40

Matrix: Water

Date Received: 03/14/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	14	P2	2.0	ug/L			03/21/24 02:28	2
Naphthalene	ND	P2	4.0	ug/L			03/21/24 02:28	2
1-Methylnaphthalene	ND	P2	8.0	ug/L			03/21/24 02:28	2
2-Methylnaphthalene	ND	P2	8.0	ug/L			03/21/24 02:28	2

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Client Sample ID: GBR-11

Lab Sample ID: 885-1156-5

Date Collected: 03/13/24 15:40

Matrix: Water

Date Received: 03/14/24 07:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	P2	70 - 130		03/21/24 02:28	2
Toluene-d8 (Surr)	97	P2	70 - 130		03/21/24 02:28	2
4-Bromofluorobenzene (Surr)	97	P2	70 - 130		03/21/24 02:28	2
Dibromofluoromethane (Surr)	102	P2	70 - 130		03/21/24 02:28	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.38		0.0020	mg/L	-		03/15/24 09:48	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L	-		03/25/24 13:37	1

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

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

Lab Sample ID: MB 885-2089/3

Matrix: Water

Analysis Batch: 2089

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/20/24 13:04	1
Naphthalene	ND		2.0	ug/L			03/20/24 13:04	1
1-Methylnaphthalene	ND		4.0	ug/L			03/20/24 13:04	1
2-Methylnaphthalene	ND		4.0	ug/L			03/20/24 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		03/20/24 13:04	1
Toluene-d8 (Surr)	89		70 - 130		03/20/24 13:04	1
4-Bromofluorobenzene (Surr)	100		70 - 130		03/20/24 13:04	1
Dibromofluoromethane (Surr)	100		70 - 130		03/20/24 13:04	1

Lab Sample ID: LCS 885-2089/2

Matrix: Water

Analysis Batch: 2089

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.7		ug/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Toluene-d8 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130

Lab Sample ID: MB 885-2091/3

Matrix: Water

Analysis Batch: 2091

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/21/24 00:51	1
Naphthalene	ND		2.0	ug/L			03/21/24 00:51	1
1-Methylnaphthalene	ND		4.0	ug/L			03/21/24 00:51	1
2-Methylnaphthalene	ND		4.0	ug/L			03/21/24 00:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/21/24 00:51	1
Toluene-d8 (Surr)	94		70 - 130		03/21/24 00:51	1
4-Bromofluorobenzene (Surr)	94		70 - 130		03/21/24 00:51	1
Dibromofluoromethane (Surr)	102		70 - 130		03/21/24 00:51	1

Lab Sample ID: LCS 885-2091/2

Matrix: Water

Analysis Batch: 2091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.9		ug/L		99	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

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

Lab Sample ID: LCS 885-2091/2

Matrix: Water

Analysis Batch: 2091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Toluene-d8 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Lab Sample ID: 885-1156-4 MS

Matrix: Water

Analysis Batch: 2091

Client Sample ID: GBR-48

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		20.1	20.0		ug/L		99	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130

Lab Sample ID: 885-1156-4 MSD

Matrix: Water

Analysis Batch: 2091

Client Sample ID: GBR-48

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	19.5		ug/L		97	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-1773/23

Matrix: Water

Analysis Batch: 1773

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			03/15/24 08:30	1

Lab Sample ID: LCS 885-1773/25

Matrix: Water

Analysis Batch: 1773

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.497		mg/L		99	85 - 115

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LLCS 885-1773/24
Matrix: Water
Analysis Batch: 1773

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

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Manganese			0.00200	0.00191	J	mg/L		95	50 - 150		

Lab Sample ID: 885-1156-1 MS
Matrix: Water
Analysis Batch: 1773

Client Sample ID: GBR-30
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Manganese	0.27		0.500	0.710		mg/L		89	70 - 130		

Lab Sample ID: 885-1156-1 MSD
Matrix: Water
Analysis Batch: 1773

Client Sample ID: GBR-30
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.27		0.500	0.709		mg/L		88	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-2280/84
Matrix: Water
Analysis Batch: 2280

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			03/25/24 13:56	1

Lab Sample ID: LCS 885-2280/85
Matrix: Water
Analysis Batch: 2280

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.0125	0.0120		mg/L		96	85 - 115		

Lab Sample ID: MRL 885-2280/34
Matrix: Water
Analysis Batch: 2280

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.000500	0.000489	J	mg/L		98	50 - 150		

Lab Sample ID: 885-1156-1 MS
Matrix: Water
Analysis Batch: 2280

Client Sample ID: GBR-30
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	ND		0.0125	0.0110		mg/L		88	70 - 130		

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 885-1156-1 MSD							Client Sample ID: GBR-30					
Matrix: Water							Prep Type: Dissolved					
Analysis Batch: 2280												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Lead	ND		0.0125	0.0107		mg/L		85	70 - 130	3	20	

Lab Sample ID: 885-1156-2 MS							Client Sample ID: GBR-52					
Matrix: Water							Prep Type: Dissolved					
Analysis Batch: 2280												
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits			
Lead	ND		0.0125	0.0110		mg/L		88	70 - 130			

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

GC/MS VOA

Analysis Batch: 2089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1156-1	GBR-30	Total/NA	Water	8260B	
885-1156-2	GBR-52	Total/NA	Water	8260B	
885-1156-3	GBR-32	Total/NA	Water	8260B	
MB 885-2089/3	Method Blank	Total/NA	Water	8260B	
LCS 885-2089/2	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 2091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1156-4	GBR-48	Total/NA	Water	8260B	
885-1156-5	GBR-11	Total/NA	Water	8260B	
MB 885-2091/3	Method Blank	Total/NA	Water	8260B	
LCS 885-2091/2	Lab Control Sample	Total/NA	Water	8260B	
885-1156-4 MS	GBR-48	Total/NA	Water	8260B	
885-1156-4 MSD	GBR-48	Total/NA	Water	8260B	

Metals

Analysis Batch: 1773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1156-1	GBR-30	Dissolved	Water	200.7 Rev 4.4	
885-1156-2	GBR-52	Dissolved	Water	200.7 Rev 4.4	
885-1156-3	GBR-32	Dissolved	Water	200.7 Rev 4.4	
885-1156-4	GBR-48	Dissolved	Water	200.7 Rev 4.4	
885-1156-5	GBR-11	Dissolved	Water	200.7 Rev 4.4	
MB 885-1773/23	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-1773/25	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-1773/24	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-1156-1 MS	GBR-30	Dissolved	Water	200.7 Rev 4.4	
885-1156-1 MSD	GBR-30	Dissolved	Water	200.7 Rev 4.4	

Analysis Batch: 2280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1156-1	GBR-30	Dissolved	Water	200.8	
885-1156-2	GBR-52	Dissolved	Water	200.8	
885-1156-3	GBR-32	Dissolved	Water	200.8	
885-1156-4	GBR-48	Dissolved	Water	200.8	
885-1156-5	GBR-11	Dissolved	Water	200.8	
MB 885-2280/84	Method Blank	Total/NA	Water	200.8	
LCS 885-2280/85	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-2280/34	Lab Control Sample	Total/NA	Water	200.8	
885-1156-1 MS	GBR-30	Dissolved	Water	200.8	
885-1156-1 MSD	GBR-30	Dissolved	Water	200.8	
885-1156-2 MS	GBR-52	Dissolved	Water	200.8	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Client Sample ID: GBR-30
Date Collected: 03/12/24 12:20
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1156-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2089	CM	EET ALB	03/20/24 22:00
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:23
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:14

Client Sample ID: GBR-52
Date Collected: 03/12/24 14:00
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1156-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2089	CM	EET ALB	03/20/24 22:25
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:33
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:21

Client Sample ID: GBR-32
Date Collected: 03/12/24 15:30
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1156-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2089	CM	EET ALB	03/20/24 22:49
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:36
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:33

Client Sample ID: GBR-48
Date Collected: 03/13/24 11:00
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1156-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2091	CM	EET ALB	03/21/24 01:15
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:45
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:35

Client Sample ID: GBR-11
Date Collected: 03/13/24 15:40
Date Received: 03/14/24 07:15

Lab Sample ID: 885-1156-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	2091	CM	EET ALB	03/21/24 02:28
Dissolved	Analysis	200.7 Rev 4.4		1	1773	VP	EET ALB	03/15/24 09:48
Dissolved	Analysis	200.8		1	2280	BV	EET ALB	03/25/24 13:37

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-1156-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

- 1
- 2
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- 11

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-1156-1

Login Number: 1156

List Number: 1

Creator: Lowman, Nick

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

- 1
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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 4/8/2024 2:08:55 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-1915-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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4/8/2024 2:08:55 PM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: GBR

Laboratory Job ID: 885-1915-1



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Definitions/Glossary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: GBR

Job ID: 885-1915-1

Job ID: 885-1915-1Eurofins Albuquerque

Job Narrative
885-1915-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/28/2024 7:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-56

Lab Sample ID: 885-1915-1

Date Collected: 03/26/24 14:30

Matrix: Water

Date Received: 03/28/24 07:08

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/29/24 13:30	1
Naphthalene	ND		2.0	ug/L			03/29/24 13:30	1
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 13:30	1
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		03/29/24 13:30	1
Toluene-d8 (Surr)	97		70 - 130		03/29/24 13:30	1
4-Bromofluorobenzene (Surr)	100		70 - 130		03/29/24 13:30	1
Dibromofluoromethane (Surr)	104		70 - 130		03/29/24 13:30	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.30		0.0020	mg/L			03/29/24 11:01	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			04/02/24 14:27	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-57
Date Collected: 03/26/24 11:45
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			03/29/24 14:43	1	
Naphthalene	ND		2.0	ug/L			03/29/24 14:43	1	
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 14:43	1	
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 14:43	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	105		70 - 130				03/29/24 14:43	1	
Toluene-d8 (Surr)	94		70 - 130				03/29/24 14:43	1	
4-Bromofluorobenzene (Surr)	95		70 - 130				03/29/24 14:43	1	
Dibromofluoromethane (Surr)	106		70 - 130				03/29/24 14:43	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.59		0.0020	mg/L			03/29/24 11:14	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			04/02/24 14:30	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-58
Date Collected: 03/26/24 13:00
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			03/29/24 15:08	1	
Naphthalene	ND		2.0	ug/L			03/29/24 15:08	1	
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 15:08	1	
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 15:08	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	102		70 - 130				03/29/24 15:08	1	
Toluene-d8 (Surr)	96		70 - 130				03/29/24 15:08	1	
4-Bromofluorobenzene (Surr)	101		70 - 130				03/29/24 15:08	1	
Dibromofluoromethane (Surr)	102		70 - 130				03/29/24 15:08	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.17		0.0020	mg/L			03/29/24 11:19	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			04/02/24 14:33	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-59

Lab Sample ID: 885-1915-4

Date Collected: 03/27/24 11:00

Matrix: Water

Date Received: 03/28/24 07:08

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/29/24 15:32	1
Naphthalene	ND		2.0	ug/L			03/29/24 15:32	1
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 15:32	1
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		03/29/24 15:32	1
Toluene-d8 (Surr)	94		70 - 130		03/29/24 15:32	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/29/24 15:32	1
Dibromofluoromethane (Surr)	103		70 - 130		03/29/24 15:32	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.27		0.0020	mg/L			03/29/24 11:24	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			04/02/24 14:36	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-60
Date Collected: 03/27/24 10:30
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			03/29/24 15:57	1	
Naphthalene	ND		2.0	ug/L			03/29/24 15:57	1	
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 15:57	1	
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 15:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				03/29/24 15:57	1	
Toluene-d8 (Surr)	96		70 - 130				03/29/24 15:57	1	
4-Bromofluorobenzene (Surr)	103		70 - 130				03/29/24 15:57	1	
Dibromofluoromethane (Surr)	99		70 - 130				03/29/24 15:57	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.53		0.0020	mg/L			03/29/24 11:29	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			04/02/24 14:39	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-53

Lab Sample ID: 885-1915-6

Date Collected: 03/27/24 11:50

Matrix: Water

Date Received: 03/28/24 07:08

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/29/24 16:21	1
Naphthalene	ND		2.0	ug/L			03/29/24 16:21	1
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 16:21	1
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		03/29/24 16:21	1
Toluene-d8 (Surr)	99		70 - 130		03/29/24 16:21	1
4-Bromofluorobenzene (Surr)	101		70 - 130		03/29/24 16:21	1
Dibromofluoromethane (Surr)	103		70 - 130		03/29/24 16:21	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.14		0.0020	mg/L			03/29/24 11:34	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			04/02/24 14:42	1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

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

Lab Sample ID: MB 885-2586/3

Matrix: Water

Analysis Batch: 2586

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			03/29/24 13:02	1
Naphthalene	ND		2.0	ug/L			03/29/24 13:02	1
1-Methylnaphthalene	ND		4.0	ug/L			03/29/24 13:02	1
2-Methylnaphthalene	ND		4.0	ug/L			03/29/24 13:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		03/29/24 13:02	1
Toluene-d8 (Surr)	97		70 - 130		03/29/24 13:02	1
4-Bromofluorobenzene (Surr)	101		70 - 130		03/29/24 13:02	1
Dibromofluoromethane (Surr)	101		70 - 130		03/29/24 13:02	1

Lab Sample ID: LCS 885-2586/2

Matrix: Water

Analysis Batch: 2586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	20.3		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

Lab Sample ID: 885-1915-1 MS

Matrix: Water

Analysis Batch: 2586

Client Sample ID: GBR-56

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		20.1	19.6		ug/L		98	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130

Lab Sample ID: 885-1915-1 MSD

Matrix: Water

Analysis Batch: 2586

Client Sample ID: GBR-56

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	20.3		ug/L		101	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
Toluene-d8 (Surr)	100		70 - 130

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

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

Lab Sample ID: 885-1915-1 MSD

Matrix: Water

Analysis Batch: 2586

Client Sample ID: GBR-56

Prep Type: Total/NA

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-2516/29

Matrix: Water

Analysis Batch: 2516

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			03/29/24 08:40	1

Lab Sample ID: LCS 885-2516/33

Matrix: Water

Analysis Batch: 2516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.478		mg/L		96	85 - 115

Lab Sample ID: LLCS 885-2516/32

Matrix: Water

Analysis Batch: 2516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00234		mg/L		117	50 - 150

Lab Sample ID: MRL 885-2516/26

Matrix: Water

Analysis Batch: 2516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00204		mg/L		102	50 - 150

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-2681/39

Matrix: Water

Analysis Batch: 2681

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			04/02/24 13:57	1

Lab Sample ID: LCS 885-2681/40

Matrix: Water

Analysis Batch: 2681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0121		mg/L		97	85 - 115

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-2681/10				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 2681							
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.000500	0.000505		mg/L		101	50 - 150

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QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

GC/MS VOA

Analysis Batch: 2586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1915-1	GBR-56	Total/NA	Water	8260B	
885-1915-2	GBR-57	Total/NA	Water	8260B	
885-1915-3	GBR-58	Total/NA	Water	8260B	
885-1915-4	GBR-59	Total/NA	Water	8260B	
885-1915-5	GBR-60	Total/NA	Water	8260B	
885-1915-6	GBR-53	Total/NA	Water	8260B	
MB 885-2586/3	Method Blank	Total/NA	Water	8260B	
LCS 885-2586/2	Lab Control Sample	Total/NA	Water	8260B	
885-1915-1 MS	GBR-56	Total/NA	Water	8260B	
885-1915-1 MSD	GBR-56	Total/NA	Water	8260B	

Metals

Analysis Batch: 2516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1915-1	GBR-56	Dissolved	Water	200.7 Rev 4.4	
885-1915-2	GBR-57	Dissolved	Water	200.7 Rev 4.4	
885-1915-3	GBR-58	Dissolved	Water	200.7 Rev 4.4	
885-1915-4	GBR-59	Dissolved	Water	200.7 Rev 4.4	
885-1915-5	GBR-60	Dissolved	Water	200.7 Rev 4.4	
885-1915-6	GBR-53	Dissolved	Water	200.7 Rev 4.4	
MB 885-2516/29	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-2516/33	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-2516/32	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-2516/26	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

Analysis Batch: 2681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1915-1	GBR-56	Dissolved	Water	200.8	
885-1915-2	GBR-57	Dissolved	Water	200.8	
885-1915-3	GBR-58	Dissolved	Water	200.8	
885-1915-4	GBR-59	Dissolved	Water	200.8	
885-1915-5	GBR-60	Dissolved	Water	200.8	
885-1915-6	GBR-53	Dissolved	Water	200.8	
MB 885-2681/39	Method Blank	Total/NA	Water	200.8	
LCS 885-2681/40	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-2681/10	Lab Control Sample	Total/NA	Water	200.8	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-56
Date Collected: 03/26/24 14:30
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2586	CM	EET ALB	03/29/24 13:30
Dissolved	Analysis	200.7 Rev 4.4		1	2516	VP	EET ALB	03/29/24 11:01
Dissolved	Analysis	200.8		1	2681	BV	EET ALB	04/02/24 14:27

Client Sample ID: GBR-57
Date Collected: 03/26/24 11:45
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2586	CM	EET ALB	03/29/24 14:43
Dissolved	Analysis	200.7 Rev 4.4		1	2516	VP	EET ALB	03/29/24 11:14
Dissolved	Analysis	200.8		1	2681	BV	EET ALB	04/02/24 14:30

Client Sample ID: GBR-58
Date Collected: 03/26/24 13:00
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2586	CM	EET ALB	03/29/24 15:08
Dissolved	Analysis	200.7 Rev 4.4		1	2516	VP	EET ALB	03/29/24 11:19
Dissolved	Analysis	200.8		1	2681	BV	EET ALB	04/02/24 14:33

Client Sample ID: GBR-59
Date Collected: 03/27/24 11:00
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2586	CM	EET ALB	03/29/24 15:32
Dissolved	Analysis	200.7 Rev 4.4		1	2516	VP	EET ALB	03/29/24 11:24
Dissolved	Analysis	200.8		1	2681	BV	EET ALB	04/02/24 14:36

Client Sample ID: GBR-60
Date Collected: 03/27/24 10:30
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2586	CM	EET ALB	03/29/24 15:57
Dissolved	Analysis	200.7 Rev 4.4		1	2516	VP	EET ALB	03/29/24 11:29
Dissolved	Analysis	200.8		1	2681	BV	EET ALB	04/02/24 14:39

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Client Sample ID: GBR-53
Date Collected: 03/27/24 11:50
Date Received: 03/28/24 07:08

Lab Sample ID: 885-1915-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	2586	CM	EET ALB	03/29/24 16:21
Dissolved	Analysis	200.7 Rev 4.4		1	2516	VP	EET ALB	03/29/24 11:34
Dissolved	Analysis	200.8		1	2681	BV	EET ALB	04/02/24 14:42

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-1915-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

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Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-1915-1

Login Number: 1915

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 5/22/2025 12:39:45 PM Revision 1

JOB DESCRIPTION

Giant Bloomfield Refinery

JOB NUMBER

885-5194-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
Michelle Garcia, Project Manager
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(505)345-3975

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Revision 1

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Laboratory Job ID: 885-5194-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: Giant Bloomfield Refinery

Job ID: 885-5194-1

Job ID: 885-5194-1

Eurofins Albuquerque

**Job Narrative
885-5194-1**

REVISION

The report being provided is a revision of the original report sent on 6/11/2024. The report (revision 1) is being revised due to 1 and 2-methylnaphthalenes added to 8260.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 5/29/2024 6:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.7°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-1 Lab Sample ID: 885-5194-1
Date Collected: 05/28/24 10:40 Matrix: Water
Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/04/24 04:16	1	
Naphthalene	ND		2.0	ug/L			06/04/24 04:16	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 04:16	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 04:16	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	112		70 - 130				06/04/24 04:16	1	
Toluene-d8 (Surr)	79		70 - 130				06/04/24 04:16	1	
4-Bromofluorobenzene (Surr)	115		70 - 130				06/04/24 04:16	1	
Dibromofluoromethane (Surr)	90		70 - 130				06/04/24 04:16	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	12		0.20	mg/L			06/04/24 14:09	100	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:28	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-2

Lab Sample ID: 885-5194-2

Date Collected: 05/28/24 11:10

Matrix: Water

Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/04/24 04:44	1
Naphthalene	ND		2.0	ug/L			06/04/24 04:44	1
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 04:44	1
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		06/04/24 04:44	1
Toluene-d8 (Surr)	79		70 - 130		06/04/24 04:44	1
4-Bromofluorobenzene (Surr)	114		70 - 130		06/04/24 04:44	1
Dibromofluoromethane (Surr)	93		70 - 130		06/04/24 04:44	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	7.3		0.040	mg/L			06/04/24 14:12	20

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 10:48	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-3 Lab Sample ID: 885-5194-3
Date Collected: 05/28/24 11:40 Matrix: Water
Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/04/24 05:13	1	
Naphthalene	ND		2.0	ug/L			06/04/24 05:13	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 05:13	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 05:13	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	111		70 - 130				06/04/24 05:13	1	
Toluene-d8 (Surr)	77		70 - 130				06/04/24 05:13	1	
4-Bromofluorobenzene (Surr)	115		70 - 130				06/04/24 05:13	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/04/24 05:13	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	1.6		0.040	mg/L			06/04/24 14:14	20	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			06/05/24 10:53	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GBR-8

Lab Sample ID: 885-5194-4

Date Collected: 05/28/24 12:20

Matrix: Water

Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			06/04/24 05:41	2
Naphthalene	ND		4.0	ug/L			06/04/24 05:41	2
2-Methylnaphthalene	ND		8.0	ug/L			06/04/24 05:41	2
1-Methylnaphthalene	ND		8.0	ug/L			06/04/24 05:41	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		06/04/24 05:41	2
Toluene-d8 (Surr)	80		70 - 130		06/04/24 05:41	2
4-Bromofluorobenzene (Surr)	115		70 - 130		06/04/24 05:41	2
Dibromofluoromethane (Surr)	92		70 - 130		06/04/24 05:41	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.8		0.040	mg/L			06/04/24 14:16	20

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 10:56	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-4 Lab Sample ID: 885-5194-5
Date Collected: 05/28/24 13:10 Matrix: Water
Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/04/24 13:19	1	
Naphthalene	ND		2.0	ug/L			06/04/24 13:19	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 13:19	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 13:19	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				06/04/24 13:19	1	
Toluene-d8 (Surr)	96		70 - 130				06/04/24 13:19	1	
4-Bromofluorobenzene (Surr)	107		70 - 130				06/04/24 13:19	1	
Dibromofluoromethane (Surr)	89		70 - 130				06/04/24 13:19	1	

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	2.4		0.040	mg/L			06/04/24 14:20	20	

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			06/05/24 10:59	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-5

Lab Sample ID: 885-5194-6

Date Collected: 05/28/24 13:40

Matrix: Water

Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/04/24 06:38	1
Naphthalene	ND		2.0	ug/L			06/04/24 06:38	1
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 06:38	1
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 06:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		06/04/24 06:38	1
Toluene-d8 (Surr)	78		70 - 130		06/04/24 06:38	1
4-Bromofluorobenzene (Surr)	116		70 - 130		06/04/24 06:38	1
Dibromofluoromethane (Surr)	92		70 - 130		06/04/24 06:38	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	7.8		0.040	mg/L			06/04/24 14:22	20

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0025	mg/L			06/05/24 13:25	5

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-6

Lab Sample ID: 885-5194-7

Date Collected: 05/28/24 14:10

Matrix: Water

Date Received: 05/29/24 06:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/04/24 07:07	1
Naphthalene	ND		2.0	ug/L			06/04/24 07:07	1
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 07:07	1
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 07:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		06/04/24 07:07	1
Toluene-d8 (Surr)	78		70 - 130		06/04/24 07:07	1
4-Bromofluorobenzene (Surr)	113		70 - 130		06/04/24 07:07	1
Dibromofluoromethane (Surr)	93		70 - 130		06/04/24 07:07	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.9		0.040	mg/L			06/04/24 14:25	20

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0025	mg/L			06/05/24 13:28	5

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

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

Lab Sample ID: MB 885-6064/3

Matrix: Water

Analysis Batch: 6064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/03/24 23:58	1
Naphthalene	ND		2.0	ug/L			06/03/24 23:58	1
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 23:58	1
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 23:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 130		06/03/24 23:58	1
Toluene-d8 (Surr)	81		70 - 130		06/03/24 23:58	1
4-Bromofluorobenzene (Surr)	116		70 - 130		06/03/24 23:58	1
Dibromofluoromethane (Surr)	93		70 - 130		06/03/24 23:58	1

Lab Sample ID: LCS 885-6064/2

Matrix: Water

Analysis Batch: 6064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	21.3		ug/L		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		70 - 130
Toluene-d8 (Surr)	81		70 - 130
4-Bromofluorobenzene (Surr)	118		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130

Lab Sample ID: MB 885-6153/3

Matrix: Water

Analysis Batch: 6153

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/04/24 11:29	1
Naphthalene	ND		2.0	ug/L			06/04/24 11:29	1
2-Methylnaphthalene	ND		4.0	ug/L			06/04/24 11:29	1
1-Methylnaphthalene	ND		4.0	ug/L			06/04/24 11:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		06/04/24 11:29	1
Toluene-d8 (Surr)	95		70 - 130		06/04/24 11:29	1
4-Bromofluorobenzene (Surr)	107		70 - 130		06/04/24 11:29	1
Dibromofluoromethane (Surr)	89		70 - 130		06/04/24 11:29	1

Lab Sample ID: LCS 885-6153/2

Matrix: Water

Analysis Batch: 6153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.0		ug/L		95	70 - 130

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

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

Lab Sample ID: LCS 885-6153/2

Matrix: Water

Analysis Batch: 6153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	111		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-6105/18

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			06/04/24 12:38	1

Lab Sample ID: LCS 885-6105/20

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.480		mg/L		96	85 - 115

Lab Sample ID: LLCS 885-6105/19

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00185	J	mg/L		92	50 - 150

Lab Sample ID: MRL 885-6105/15

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00188	J	mg/L		94	50 - 150

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-6177/14

Matrix: Water

Analysis Batch: 6177

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 08:57	1

Lab Sample ID: LCS 885-6177/15

Matrix: Water

Analysis Batch: 6177

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0126		mg/L		101	85 - 115

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-6177/10				Client Sample ID: Lab Control Sample							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 6177											
Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.000500	0.000479	J	mg/L		96	50 - 150		

Lab Sample ID: 885-5194-1 MS				Client Sample ID: GRW-1							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	ND	^+	0.0125	0.0120		mg/L		96	70 - 130		

Lab Sample ID: 885-5194-1 MSD				Client Sample ID: GRW-1							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND	^+	0.0125	0.0130		mg/L		104	70 - 130	8	20

Lab Sample ID: 885-5194-2 MS				Client Sample ID: GRW-2							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	ND		0.0125	0.0127		mg/L		102	70 - 130		

QC Association Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

GC/MS VOA

Analysis Batch: 6064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5194-1	GRW-1	Total/NA	Water	8260B	
885-5194-2	GRW-2	Total/NA	Water	8260B	
885-5194-3	GRW-3	Total/NA	Water	8260B	
885-5194-4	GBR-8	Total/NA	Water	8260B	
885-5194-6	GRW-5	Total/NA	Water	8260B	
885-5194-7	GRW-6	Total/NA	Water	8260B	
MB 885-6064/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6064/2	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 6153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5194-5	GRW-4	Total/NA	Water	8260B	
MB 885-6153/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6153/2	Lab Control Sample	Total/NA	Water	8260B	

Metals

Analysis Batch: 6105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5194-1	GRW-1	Dissolved	Water	200.7 Rev 4.4	
885-5194-2	GRW-2	Dissolved	Water	200.7 Rev 4.4	
885-5194-3	GRW-3	Dissolved	Water	200.7 Rev 4.4	
885-5194-4	GBR-8	Dissolved	Water	200.7 Rev 4.4	
885-5194-5	GRW-4	Dissolved	Water	200.7 Rev 4.4	
885-5194-6	GRW-5	Dissolved	Water	200.7 Rev 4.4	
885-5194-7	GRW-6	Dissolved	Water	200.7 Rev 4.4	
MB 885-6105/18	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-6105/20	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-6105/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-6105/15	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

Analysis Batch: 6177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5194-1	GRW-1	Dissolved	Water	200.8	
885-5194-2	GRW-2	Dissolved	Water	200.8	
885-5194-3	GRW-3	Dissolved	Water	200.8	
885-5194-4	GBR-8	Dissolved	Water	200.8	
885-5194-5	GRW-4	Dissolved	Water	200.8	
885-5194-6	GRW-5	Dissolved	Water	200.8	
885-5194-7	GRW-6	Dissolved	Water	200.8	
MB 885-6177/14	Method Blank	Total/NA	Water	200.8	
LCS 885-6177/15	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-6177/10	Lab Control Sample	Total/NA	Water	200.8	
885-5194-1 MS	GRW-1	Dissolved	Water	200.8	
885-5194-1 MSD	GRW-1	Dissolved	Water	200.8	
885-5194-2 MS	GRW-2	Dissolved	Water	200.8	

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Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-1
Date Collected: 05/28/24 10:40
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6064	JR	EET ALB	06/04/24 04:16
Dissolved	Analysis	200.7 Rev 4.4		100	6105	VP	EET ALB	06/04/24 14:09
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:28

Client Sample ID: GRW-2
Date Collected: 05/28/24 11:10
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6064	JR	EET ALB	06/04/24 04:44
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 14:12
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:48

Client Sample ID: GRW-3
Date Collected: 05/28/24 11:40
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6064	JR	EET ALB	06/04/24 05:13
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 14:14
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:53

Client Sample ID: GBR-8
Date Collected: 05/28/24 12:20
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6064	JR	EET ALB	06/04/24 05:41
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 14:16
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:56

Client Sample ID: GRW-4
Date Collected: 05/28/24 13:10
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6153	CM	EET ALB	06/04/24 13:19
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 14:20
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:59

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Client Sample ID: GRW-5
Date Collected: 05/28/24 13:40
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6064	JR	EET ALB	06/04/24 06:38
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 14:22
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:25

Client Sample ID: GRW-6
Date Collected: 05/28/24 14:10
Date Received: 05/29/24 06:35

Lab Sample ID: 885-5194-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6064	JR	EET ALB	06/04/24 07:07
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 14:25
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:28

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5194-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4		Water	Manganese
200.8		Water	Lead
8260B		Water	1-Methylnaphthalene
8260B		Water	2-Methylnaphthalene
8260B		Water	Benzene
8260B		Water	Naphthalene
Oregon	NELAP	NM100001	02-25-25

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-5194-1

Login Number: 5194

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 6/10/2024 8:53:17 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-5283-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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6/10/2024 8:53:17 PM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: GBR

Laboratory Job ID: 885-5283-1



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Definitions/Glossary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Qualifiers

Metals	
Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▣	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: GBR

Job ID: 885-5283-1

Job ID: 885-5283-1

Eurofins Albuquerque

Job Narrative 885-5283-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 5/30/2024 6:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 200.7 - Dissolved: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 885-5956 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-48

Lab Sample ID: 885-5283-1

Date Collected: 05/29/24 10:05

Matrix: Water

Date Received: 05/30/24 06:55

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 17:16	1
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 17:16	1
Benzene	ND		1.0	ug/L			06/06/24 17:16	1
Naphthalene	ND		2.0	ug/L			06/06/24 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		06/06/24 17:16	1
4-Bromofluorobenzene (Surr)	111		70 - 130		06/06/24 17:16	1
Dibromofluoromethane (Surr)	90		70 - 130		06/06/24 17:16	1
Toluene-d8 (Surr)	94		70 - 130		06/06/24 17:16	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.0034		0.0020	mg/L			05/31/24 12:23	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 09:09	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-18
Date Collected: 05/29/24 10:20
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 18:30	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 18:30	1	
Benzene	ND		1.0	ug/L			06/06/24 18:30	1	
Naphthalene	ND		2.0	ug/L			06/06/24 18:30	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				06/06/24 18:30	1	
4-Bromofluorobenzene (Surr)	111		70 - 130				06/06/24 18:30	1	
Dibromofluoromethane (Surr)	94		70 - 130				06/06/24 18:30	1	
Toluene-d8 (Surr)	94		70 - 130				06/06/24 18:30	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.092		0.0020	mg/L			05/31/24 12:25	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			06/05/24 09:18	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-30
Date Collected: 05/29/24 10:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 18:55	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 18:55	1	
Benzene	ND		1.0	ug/L			06/06/24 18:55	1	
Naphthalene	ND		2.0	ug/L			06/06/24 18:55	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	100		70 - 130				06/06/24 18:55	1	
4-Bromofluorobenzene (Surr)	112		70 - 130				06/06/24 18:55	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/06/24 18:55	1	
Toluene-d8 (Surr)	94		70 - 130				06/06/24 18:55	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.23		0.0020	mg/L			05/31/24 12:30	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:29	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-20
Date Collected: 05/29/24 11:10
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 22:22	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 22:22	1	
Benzene	1.6		1.0	ug/L			06/07/24 22:22	1	
Naphthalene	ND		2.0	ug/L			06/07/24 22:22	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				06/07/24 22:22	1	
4-Bromofluorobenzene (Surr)	116		70 - 130				06/07/24 22:22	1	
Dibromofluoromethane (Surr)	91		70 - 130				06/07/24 22:22	1	
Toluene-d8 (Surr)	98		70 - 130				06/07/24 22:22	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.44		0.0020	mg/L			05/31/24 12:33	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:32	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-11

Lab Sample ID: 885-5283-5

Date Collected: 05/29/24 11:30

Matrix: Water

Date Received: 05/30/24 06:55

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 19:44	1
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 19:44	1
Benzene	6.8		1.0	ug/L			06/06/24 19:44	1
Naphthalene	ND		2.0	ug/L			06/06/24 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/06/24 19:44	1
4-Bromofluorobenzene (Surr)	112		70 - 130		06/06/24 19:44	1
Dibromofluoromethane (Surr)	91		70 - 130		06/06/24 19:44	1
Toluene-d8 (Surr)	96		70 - 130		06/06/24 19:44	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.67		0.0020	mg/L			05/31/24 12:48	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	^+	0.00050	mg/L			06/05/24 09:35	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-13
Date Collected: 05/29/24 11:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 20:09	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 20:09	1	
Benzene	ND		1.0	ug/L			06/06/24 20:09	1	
Naphthalene	ND		2.0	ug/L			06/06/24 20:09	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				06/06/24 20:09	1	
4-Bromofluorobenzene (Surr)	108		70 - 130				06/06/24 20:09	1	
Dibromofluoromethane (Surr)	90		70 - 130				06/06/24 20:09	1	
Toluene-d8 (Surr)	93		70 - 130				06/06/24 20:09	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	5.5		0.020	mg/L			05/31/24 12:50	10	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:38	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-58
Date Collected: 05/29/24 12:10
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 20:33	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 20:33	1	
Benzene	ND		1.0	ug/L			06/06/24 20:33	1	
Naphthalene	ND		2.0	ug/L			06/06/24 20:33	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				06/06/24 20:33	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/06/24 20:33	1	
Dibromofluoromethane (Surr)	94		70 - 130				06/06/24 20:33	1	
Toluene-d8 (Surr)	93		70 - 130				06/06/24 20:33	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.45		0.0020	mg/L			05/31/24 12:53	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:41	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GRW-9
Date Collected: 05/29/24 12:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 20:58	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 20:58	1	
Benzene	ND		1.0	ug/L			06/06/24 20:58	1	
Naphthalene	ND		2.0	ug/L			06/06/24 20:58	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/06/24 20:58	1	
4-Bromofluorobenzene (Surr)	112		70 - 130				06/06/24 20:58	1	
Dibromofluoromethane (Surr)	94		70 - 130				06/06/24 20:58	1	
Toluene-d8 (Surr)	94		70 - 130				06/06/24 20:58	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.58		0.0020	mg/L			05/31/24 12:55	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:44	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-5

Lab Sample ID: 885-5283-9

Date Collected: 05/29/24 13:20

Matrix: Water

Date Received: 05/30/24 06:55

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		8.0	ug/L			06/06/24 21:22	2
2-Methylnaphthalene	ND		8.0	ug/L			06/06/24 21:22	2
Benzene	ND		2.0	ug/L			06/06/24 21:22	2
Naphthalene	ND		4.0	ug/L			06/06/24 21:22	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/06/24 21:22	2
4-Bromofluorobenzene (Surr)	112		70 - 130		06/06/24 21:22	2
Dibromofluoromethane (Surr)	89		70 - 130		06/06/24 21:22	2
Toluene-d8 (Surr)	94		70 - 130		06/06/24 21:22	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	6.5		0.020	mg/L			05/31/24 13:26	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	^+	0.00050	mg/L			06/05/24 09:47	1

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Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-57
Date Collected: 05/29/24 14:00
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-10
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 21:47	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 21:47	1	
Benzene	ND		1.0	ug/L			06/06/24 21:47	1	
Naphthalene	ND		2.0	ug/L			06/06/24 21:47	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				06/06/24 21:47	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/06/24 21:47	1	
Dibromofluoromethane (Surr)	91		70 - 130				06/06/24 21:47	1	
Toluene-d8 (Surr)	94		70 - 130				06/06/24 21:47	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.74		0.0020	mg/L			05/31/24 13:02	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:50	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-56
Date Collected: 05/29/24 14:20
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-11
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 22:12	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 22:12	1	
Benzene	ND		1.0	ug/L			06/06/24 22:12	1	
Naphthalene	ND		2.0	ug/L			06/06/24 22:12	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/06/24 22:12	1	
4-Bromofluorobenzene (Surr)	111		70 - 130				06/06/24 22:12	1	
Dibromofluoromethane (Surr)	93		70 - 130				06/06/24 22:12	1	
Toluene-d8 (Surr)	93		70 - 130				06/06/24 22:12	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.064	F1 F2	0.0020	mg/L			05/31/24 13:04	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 09:53	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-54
Date Collected: 05/29/24 14:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-12
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 22:36	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 22:36	1	
Benzene	ND		1.0	ug/L			06/06/24 22:36	1	
Naphthalene	ND		2.0	ug/L			06/06/24 22:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/06/24 22:36	1	
4-Bromofluorobenzene (Surr)	110		70 - 130				06/06/24 22:36	1	
Dibromofluoromethane (Surr)	91		70 - 130				06/06/24 22:36	1	
Toluene-d8 (Surr)	94		70 - 130				06/06/24 22:36	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	3.0		0.010	mg/L			05/31/24 13:28	5	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:02	1	

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

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

Lab Sample ID: MB 885-6297/3

Matrix: Water

Analysis Batch: 6297

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 16:52	1
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 16:52	1
Benzene	ND		1.0	ug/L			06/06/24 16:52	1
Naphthalene	ND		2.0	ug/L			06/06/24 16:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		06/06/24 16:52	1
4-Bromofluorobenzene (Surr)	111		70 - 130		06/06/24 16:52	1
Dibromofluoromethane (Surr)	89		70 - 130		06/06/24 16:52	1
Toluene-d8 (Surr)	93		70 - 130		06/06/24 16:52	1

Lab Sample ID: LCS 885-6297/2

Matrix: Water

Analysis Batch: 6297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.5		ug/L		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Lab Sample ID: 885-5283-1 MS

Matrix: Water

Analysis Batch: 6297

Client Sample ID: GBR-48

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		20.1	21.0		ug/L		104	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	113		70 - 130
Dibromofluoromethane (Surr)	91		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Lab Sample ID: 885-5283-1 MSD

Matrix: Water

Analysis Batch: 6297

Client Sample ID: GBR-48

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	20.1		ug/L		100	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	113		70 - 130

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

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

Lab Sample ID: 885-5283-1 MSD

Matrix: Water

Analysis Batch: 6297

Client Sample ID: GBR-48

Prep Type: Total/NA

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	91		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Lab Sample ID: MB 885-6410/4

Matrix: Water

Analysis Batch: 6410

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 12:08	1
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 12:08	1
Benzene	ND		1.0	ug/L			06/07/24 12:08	1
Naphthalene	ND		2.0	ug/L			06/07/24 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/07/24 12:08	1
4-Bromofluorobenzene (Surr)	112		70 - 130		06/07/24 12:08	1
Dibromofluoromethane (Surr)	94		70 - 130		06/07/24 12:08	1
Toluene-d8 (Surr)	94		70 - 130		06/07/24 12:08	1

Lab Sample ID: LCS 885-6410/3

Matrix: Water

Analysis Batch: 6410

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	20.2		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130
Toluene-d8 (Surr)	94		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-5956/27

Matrix: Water

Analysis Batch: 5956

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			05/31/24 12:35	1

Lab Sample ID: LCS 885-5956/32

Matrix: Water

Analysis Batch: 5956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.485		mg/L		97	85 - 115

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LLCS 885-5956/28

Matrix: Water

Analysis Batch: 5956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00186	J	mg/L		93	50 - 150

Lab Sample ID: MRL 885-5956/16

Matrix: Water

Analysis Batch: 5956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00180	J	mg/L		90	50 - 150

Lab Sample ID: 885-5283-11 MS

Matrix: Water

Analysis Batch: 5956

Client Sample ID: GBR-56

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.064	F1 F2	0.500	0.453		mg/L		78	70 - 130

Lab Sample ID: 885-5283-11 MSD

Matrix: Water

Analysis Batch: 5956

Client Sample ID: GBR-56

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.064	F1 F2	0.500	0.355	F1 F2	mg/L		58	70 - 130	24	20

Lab Sample ID: 885-5283-12 MSD

Matrix: Water

Analysis Batch: 5956

Client Sample ID: GBR-54

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	2.8	F2	0.500	0.957	4 F2	mg/L		-367	70 - 130	137	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-6177/12

Matrix: Water

Analysis Batch: 6177

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 08:51	1

Lab Sample ID: LCS 885-6177/13

Matrix: Water

Analysis Batch: 6177

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0124		mg/L		99	85 - 115

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QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-6177/10				Client Sample ID: Lab Control Sample							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 6177											
Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.000500	0.000479	J	mg/L		96	50 - 150		

Lab Sample ID: 885-5283-1 MS				Client Sample ID: GBR-48							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	ND		0.0125	0.0120		mg/L		96	70 - 130		

Lab Sample ID: 885-5283-1 MSD				Client Sample ID: GBR-48							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		0.0125	0.0121		mg/L		97	70 - 130	1	20

QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

GC/MS VOA

Analysis Batch: 6297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5283-1	GBR-48	Total/NA	Water	8260B	
885-5283-2	GBR-18	Total/NA	Water	8260B	
885-5283-3	GBR-30	Total/NA	Water	8260B	
885-5283-5	GBR-11	Total/NA	Water	8260B	
885-5283-6	GBR-13	Total/NA	Water	8260B	
885-5283-7	GBR-58	Total/NA	Water	8260B	
885-5283-8	GRW-9	Total/NA	Water	8260B	
885-5283-9	GBR-5	Total/NA	Water	8260B	
885-5283-10	GBR-57	Total/NA	Water	8260B	
885-5283-11	GBR-56	Total/NA	Water	8260B	
885-5283-12	GBR-54	Total/NA	Water	8260B	
MB 885-6297/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6297/2	Lab Control Sample	Total/NA	Water	8260B	
885-5283-1 MS	GBR-48	Total/NA	Water	8260B	
885-5283-1 MSD	GBR-48	Total/NA	Water	8260B	

Analysis Batch: 6410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5283-4	GBR-20	Total/NA	Water	8260B	
MB 885-6410/4	Method Blank	Total/NA	Water	8260B	
LCS 885-6410/3	Lab Control Sample	Total/NA	Water	8260B	

Metals

Analysis Batch: 5956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5283-1	GBR-48	Dissolved	Water	200.7 Rev 4.4	
885-5283-2	GBR-18	Dissolved	Water	200.7 Rev 4.4	
885-5283-3	GBR-30	Dissolved	Water	200.7 Rev 4.4	
885-5283-4	GBR-20	Dissolved	Water	200.7 Rev 4.4	
885-5283-5	GBR-11	Dissolved	Water	200.7 Rev 4.4	
885-5283-6	GBR-13	Dissolved	Water	200.7 Rev 4.4	
885-5283-7	GBR-58	Dissolved	Water	200.7 Rev 4.4	
885-5283-8	GRW-9	Dissolved	Water	200.7 Rev 4.4	
885-5283-9	GBR-5	Dissolved	Water	200.7 Rev 4.4	
885-5283-10	GBR-57	Dissolved	Water	200.7 Rev 4.4	
885-5283-11	GBR-56	Dissolved	Water	200.7 Rev 4.4	
885-5283-12	GBR-54	Dissolved	Water	200.7 Rev 4.4	
MB 885-5956/27	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-5956/32	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-5956/28	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-5956/16	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-5283-11 MS	GBR-56	Dissolved	Water	200.7 Rev 4.4	
885-5283-11 MSD	GBR-56	Dissolved	Water	200.7 Rev 4.4	
885-5283-12 MSD	GBR-54	Dissolved	Water	200.7 Rev 4.4	

Analysis Batch: 6177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5283-1	GBR-48	Dissolved	Water	200.8	
885-5283-2	GBR-18	Dissolved	Water	200.8	
885-5283-3	GBR-30	Dissolved	Water	200.8	

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QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Metals (Continued)

Analysis Batch: 6177 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5283-4	GBR-20	Dissolved	Water	200.8	
885-5283-5	GBR-11	Dissolved	Water	200.8	
885-5283-6	GBR-13	Dissolved	Water	200.8	
885-5283-7	GBR-58	Dissolved	Water	200.8	
885-5283-8	GRW-9	Dissolved	Water	200.8	
885-5283-9	GBR-5	Dissolved	Water	200.8	
885-5283-10	GBR-57	Dissolved	Water	200.8	
885-5283-11	GBR-56	Dissolved	Water	200.8	
885-5283-12	GBR-54	Dissolved	Water	200.8	
MB 885-6177/12	Method Blank	Total/NA	Water	200.8	
LCS 885-6177/13	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-6177/10	Lab Control Sample	Total/NA	Water	200.8	
885-5283-1 MS	GBR-48	Dissolved	Water	200.8	
885-5283-1 MSD	GBR-48	Dissolved	Water	200.8	

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-48
Date Collected: 05/29/24 10:05
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 17:16
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:23
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:09

Client Sample ID: GBR-18
Date Collected: 05/29/24 10:20
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 18:30
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:25
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:18

Client Sample ID: GBR-30
Date Collected: 05/29/24 10:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 18:55
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:30
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:29

Client Sample ID: GBR-20
Date Collected: 05/29/24 11:10
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6410	RA	EET ALB	06/07/24 22:22
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:33
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:32

Client Sample ID: GBR-11
Date Collected: 05/29/24 11:30
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 19:44
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:48
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:35

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-13
Date Collected: 05/29/24 11:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 20:09
Dissolved	Analysis	200.7 Rev 4.4		10	5956	VP	EET ALB	05/31/24 12:50
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:38

Client Sample ID: GBR-58
Date Collected: 05/29/24 12:10
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 20:33
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:53
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:41

Client Sample ID: GRW-9
Date Collected: 05/29/24 12:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 20:58
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 12:55
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:44

Client Sample ID: GBR-5
Date Collected: 05/29/24 13:20
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6297	CM	EET ALB	06/06/24 21:22
Dissolved	Analysis	200.7 Rev 4.4		10	5956	VP	EET ALB	05/31/24 13:26
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:47

Client Sample ID: GBR-57
Date Collected: 05/29/24 14:00
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 21:47
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 13:02
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:50

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Client Sample ID: GBR-56
Date Collected: 05/29/24 14:20
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 22:12
Dissolved	Analysis	200.7 Rev 4.4		1	5956	VP	EET ALB	05/31/24 13:04
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 09:53

Client Sample ID: GBR-54
Date Collected: 05/29/24 14:40
Date Received: 05/30/24 06:55

Lab Sample ID: 885-5283-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 22:36
Dissolved	Analysis	200.7 Rev 4.4		5	5956	VP	EET ALB	05/31/24 13:28
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:02

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5283-1

Laboratory: Eurofins Albuquerque

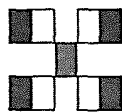
The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

- 1
- 2
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- 10
- 11

Chain-of-Custody Record

Client: Ensolum		Turn-Around Time: 5 day <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Mailing Address: 7706 E 2nd Ave		Project Name: GBR	
Phone #: 303-842-9575		Project #: 07A1015083	
email or Fax#: SHyde@ensolum.com		Project Manager: Stuart Hyde	
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sampler: PA	
Accreditation: <input type="checkbox"/> AZ Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other		On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input checked="" type="checkbox"/> EDD (Type)		# of Coolers: 1	
		Cooler Temp (including off): 53-55.2 (C)	
Date	Time	Matrix	Sample Name
5/29/15	10:05	GW	GBR-48
	10:20		GBR-18
	10:40		GBR-30
	11:10		GBR-20
	11:30		GBR-11
	11:40		GBR-13
	12:10		GBR-58
	12:40		GRW-9
	13:20		GBR-5
	14:00		GBR-57
	14:20		GBR-56
	14:40		GBR-54
Date	Time	Relinquished by:	Relinquished by:
5/29/15	15:28	Peter Anderson	15:28
Date	Time	Relinquished by:	Relinquished by:
5/29/15	17:32	Stuart Waaler	5/30/15 6:55



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109 885-5283 COC

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMBs (8021)	
TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	
Benzene	X
Total Naphthalene	X
Lead (dissolved)	X
Mn (dissolved)	X

Remarks:

Received by:	Via:	Date	Time
Stuart Waaler		5/29/15	15:28
Received by:	Via:	Date	Time
Stuart Waaler		5/30/15	6:55

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-5283-1

Login Number: 5283
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

- 1
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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde

Ensolum LLC

776 E 2nd Avenue

Durango, Colorado 81301

Generated 5/22/2025 12:40:50 PM Revision 1

JOB DESCRIPTION

Giant Bloomfield Refinery

JOB NUMBER

885-5359-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
Michelle Garcia, Project Manager
michelle.garcia@et.eurofinsus.com
(505)345-3975

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5/22/2025 12:40:50 PM
Revision 1

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Laboratory Job ID: 885-5359-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: Giant Bloomfield Refinery

Job ID: 885-5359-1

Job ID: 885-5359-1Eurofins Albuquerque

Job Narrative
885-5359-1

REVISION

The report being provided is a revision of the original report sent on 6/11/2024. The report (revision 1) is being revised due to 1 and 2-methylnaphthalenes added to 8260.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 5/31/2024 7:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-41R

Lab Sample ID: 885-5359-1

Date Collected: 05/30/24 10:10

Matrix: Water

Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/03/24 20:40	1
Naphthalene	ND		2.0	ug/L			06/03/24 20:40	1
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 20:40	1
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/03/24 20:40	1
Toluene-d8 (Surr)	95		70 - 130		06/03/24 20:40	1
4-Bromofluorobenzene (Surr)	105		70 - 130		06/03/24 20:40	1
Dibromofluoromethane (Surr)	93		70 - 130		06/03/24 20:40	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.1		0.020	mg/L			06/07/24 13:37	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0025	mg/L			06/05/24 13:31	5

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-34 Lab Sample ID: 885-5359-2
Date Collected: 05/30/24 10:50 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/03/24 21:05	1	
Naphthalene	ND		2.0	ug/L			06/03/24 21:05	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 21:05	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 21:05	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/03/24 21:05	1	
Toluene-d8 (Surr)	95		70 - 130				06/03/24 21:05	1	
4-Bromofluorobenzene (Surr)	108		70 - 130				06/03/24 21:05	1	
Dibromofluoromethane (Surr)	91		70 - 130				06/03/24 21:05	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	2.4		0.020	mg/L			06/07/24 13:39	10	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			06/05/24 11:31	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-22 Lab Sample ID: 885-5359-3
Date Collected: 05/30/24 11:05 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	1.6		1.0	ug/L			06/03/24 21:29	1	
Naphthalene	2.7		2.0	ug/L			06/03/24 21:29	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 21:29	1	
1-Methylnaphthalene	48		4.0	ug/L			06/03/24 21:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	89		70 - 130				06/03/24 21:29	1	
Toluene-d8 (Surr)	98		70 - 130				06/03/24 21:29	1	
4-Bromofluorobenzene (Surr)	110		70 - 130				06/03/24 21:29	1	
Dibromofluoromethane (Surr)	87		70 - 130				06/03/24 21:29	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	1.9		0.020	mg/L			06/07/24 13:42	10	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 13:34	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-59 Lab Sample ID: 885-5359-4
Date Collected: 05/30/24 11:22 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/03/24 21:54	1	
Naphthalene	ND		2.0	ug/L			06/03/24 21:54	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 21:54	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 21:54	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				06/03/24 21:54	1	
Toluene-d8 (Surr)	94		70 - 130				06/03/24 21:54	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/03/24 21:54	1	
Dibromofluoromethane (Surr)	91		70 - 130				06/03/24 21:54	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.29		0.0020	mg/L			06/07/24 12:52	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 13:37	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-60 Lab Sample ID: 885-5359-5
Date Collected: 05/30/24 11:50 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/03/24 22:18	1	
Naphthalene	ND		2.0	ug/L			06/03/24 22:18	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 22:18	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 22:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/03/24 22:18	1	
Toluene-d8 (Surr)	94		70 - 130				06/03/24 22:18	1	
4-Bromofluorobenzene (Surr)	106		70 - 130				06/03/24 22:18	1	
Dibromofluoromethane (Surr)	93		70 - 130				06/03/24 22:18	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	1.0		0.010	mg/L			06/07/24 13:44	5	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 13:40	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-7 Lab Sample ID: 885-5359-6
Date Collected: 05/30/24 12:30 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/03/24 22:43	1	
Naphthalene	2.2		2.0	ug/L			06/03/24 22:43	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 22:43	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 22:43	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/03/24 22:43	1	
Toluene-d8 (Surr)	99		70 - 130				06/03/24 22:43	1	
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130				06/03/24 22:43	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/03/24 22:43	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	1.9		0.020	mg/L			06/07/24 13:46	10	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 13:43	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-21D Lab Sample ID: 885-5359-7
Date Collected: 05/30/24 12:50 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/03/24 23:07	1	
Naphthalene	ND		2.0	ug/L			06/03/24 23:07	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 23:07	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 23:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/03/24 23:07	1	
Toluene-d8 (Surr)	96		70 - 130				06/03/24 23:07	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/03/24 23:07	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/03/24 23:07	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.21		0.0020	mg/L			06/07/24 13:05	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 13:46	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GRW-11

Lab Sample ID: 885-5359-8

Date Collected: 05/30/24 13:10

Matrix: Water

Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/05/24 13:00	1
Naphthalene	ND		2.0	ug/L			06/05/24 13:00	1
2-Methylnaphthalene	ND		4.0	ug/L			06/05/24 13:00	1
1-Methylnaphthalene	ND		4.0	ug/L			06/05/24 13:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		06/05/24 13:00	1
Toluene-d8 (Surr)	95		70 - 130		06/05/24 13:00	1
4-Bromofluorobenzene (Surr)	110		70 - 130		06/05/24 13:00	1
Dibromofluoromethane (Surr)	91		70 - 130		06/05/24 13:00	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1		0.020	mg/L			06/07/24 13:48	10

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0025	mg/L			06/05/24 13:49	5

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Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-39 Lab Sample ID: 885-5359-9
Date Collected: 05/30/24 13:40 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/05/24 13:24	1	
Naphthalene	ND		2.0	ug/L			06/05/24 13:24	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/05/24 13:24	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/05/24 13:24	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				06/05/24 13:24	1	
Toluene-d8 (Surr)	94		70 - 130				06/05/24 13:24	1	
4-Bromofluorobenzene (Surr)	112		70 - 130				06/05/24 13:24	1	
Dibromofluoromethane (Surr)	90		70 - 130				06/05/24 13:24	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.080		0.0020	mg/L			06/07/24 13:10	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 13:52	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GRW-13 Lab Sample ID: 885-5359-10
Date Collected: 05/30/24 14:10 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/05/24 14:38	1	
Naphthalene	ND		2.0	ug/L			06/05/24 14:38	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/05/24 14:38	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/05/24 14:38	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				06/05/24 14:38	1	
Toluene-d8 (Surr)	94		70 - 130				06/05/24 14:38	1	
4-Bromofluorobenzene (Surr)	111		70 - 130				06/05/24 14:38	1	
Dibromofluoromethane (Surr)	89		70 - 130				06/05/24 14:38	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.61		0.010	mg/L			06/07/24 13:51	5	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 14:20	5	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-24D Lab Sample ID: 885-5359-11
Date Collected: 05/30/24 14:40 Matrix: Water
Date Received: 05/31/24 07:00

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/05/24 15:02	1	
Naphthalene	ND		2.0	ug/L			06/05/24 15:02	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/05/24 15:02	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/05/24 15:02	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				06/05/24 15:02	1	
Toluene-d8 (Surr)	94		70 - 130				06/05/24 15:02	1	
4-Bromofluorobenzene (Surr)	112		70 - 130				06/05/24 15:02	1	
Dibromofluoromethane (Surr)	89		70 - 130				06/05/24 15:02	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.65		0.010	mg/L			06/07/24 13:57	5	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0025	mg/L			06/05/24 14:26	5	

QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

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

Lab Sample ID: MB 885-6081/3

Matrix: Water

Analysis Batch: 6081

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/03/24 14:09	1
Naphthalene	ND		2.0	ug/L			06/03/24 14:09	1
2-Methylnaphthalene	ND		4.0	ug/L			06/03/24 14:09	1
1-Methylnaphthalene	ND		4.0	ug/L			06/03/24 14:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		06/03/24 14:09	1
Toluene-d8 (Surr)	96		70 - 130		06/03/24 14:09	1
4-Bromofluorobenzene (Surr)	106		70 - 130		06/03/24 14:09	1
Dibromofluoromethane (Surr)	89		70 - 130		06/03/24 14:09	1

Lab Sample ID: STOBLK 885-6081/26

Matrix: Water

Analysis Batch: 6081

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	STOBLK Result	STOBLK Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/03/24 23:32	1
Naphthalene	ND		2.0	ug/L			06/03/24 23:32	1

Surrogate	STOBLK %Recovery	STOBLK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		06/03/24 23:32	1
Toluene-d8 (Surr)	96		70 - 130		06/03/24 23:32	1
4-Bromofluorobenzene (Surr)	109		70 - 130		06/03/24 23:32	1
Dibromofluoromethane (Surr)	88		70 - 130		06/03/24 23:32	1

Lab Sample ID: LCS 885-6081/2

Matrix: Water

Analysis Batch: 6081

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	18.6		ug/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	109		70 - 130
Dibromofluoromethane (Surr)	84		70 - 130

Lab Sample ID: MB 885-6262/3

Matrix: Water

Analysis Batch: 6262

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/05/24 12:11	1
Naphthalene	ND		2.0	ug/L			06/05/24 12:11	1
2-Methylnaphthalene	ND		4.0	ug/L			06/05/24 12:11	1
1-Methylnaphthalene	ND		4.0	ug/L			06/05/24 12:11	1

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

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

Lab Sample ID: MB 885-6262/3

Matrix: Water

Analysis Batch: 6262

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/05/24 12:11	1			
Toluene-d8 (Surr)	96		70 - 130		06/05/24 12:11	1			
4-Bromofluorobenzene (Surr)	113		70 - 130		06/05/24 12:11	1			
Dibromofluoromethane (Surr)	90		70 - 130		06/05/24 12:11	1			

Lab Sample ID: STOBLK 885-6262/11

Matrix: Water

Analysis Batch: 6262

Client Sample ID: Method Blank

Prep Type: Total/NA

	STOBLK	STOBLK							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/05/24 15:27	1	
Naphthalene	ND		2.0	ug/L			06/05/24 15:27	1	

	STOBLK	STOBLK							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		06/05/24 15:27	1			
Toluene-d8 (Surr)	93		70 - 130		06/05/24 15:27	1			
4-Bromofluorobenzene (Surr)	112		70 - 130		06/05/24 15:27	1			
Dibromofluoromethane (Surr)	91		70 - 130		06/05/24 15:27	1			

Lab Sample ID: LCS 885-6262/2

Matrix: Water

Analysis Batch: 6262

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
Benzene	20.1	19.5		ug/L		97		70 - 130	

	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	93		70 - 130						
Toluene-d8 (Surr)	96		70 - 130						
4-Bromofluorobenzene (Surr)	113		70 - 130						
Dibromofluoromethane (Surr)	87		70 - 130						

Lab Sample ID: 885-5359-9 MS

Matrix: Water

Analysis Batch: 6262

Client Sample ID: GBR-39

Prep Type: Total/NA

	Sample	Sample	Spike	MS	MS				
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	%Rec
Benzene	ND		20.1	19.8		ug/L		99	

	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	95		70 - 130						
Toluene-d8 (Surr)	95		70 - 130						
4-Bromofluorobenzene (Surr)	115		70 - 130						
Dibromofluoromethane (Surr)	91		70 - 130						

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

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

Lab Sample ID: 885-5359-9 MSD

Matrix: Water

Analysis Batch: 6262

Client Sample ID: GBR-39

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		20.1	18.7		ug/L		93	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	94		70 - 130								
Toluene-d8 (Surr)	95		70 - 130								
4-Bromofluorobenzene (Surr)	112		70 - 130								
Dibromofluoromethane (Surr)	87		70 - 130								

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-6327/16

Matrix: Water

Analysis Batch: 6327

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			06/07/24 12:05	1

Lab Sample ID: LCS 885-6327/18

Matrix: Water

Analysis Batch: 6327

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.500		mg/L		100	85 - 115

Lab Sample ID: LLCS 885-6327/17

Matrix: Water

Analysis Batch: 6327

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00213		mg/L		106	50 - 150

Lab Sample ID: MRL 885-6327/13

Matrix: Water

Analysis Batch: 6327

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00214		mg/L		107	50 - 150

Lab Sample ID: 885-5359-10 MS

Matrix: Water

Analysis Batch: 6327

Client Sample ID: GRW-13

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.61		2.50	2.94		mg/L		93	70 - 130

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 885-5359-10 MSD
Matrix: Water
Analysis Batch: 6327

Client Sample ID: GRW-13
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.61		2.50	2.98		mg/L		95	70 - 130	1	20

Lab Sample ID: 885-5359-11 MS
Matrix: Water
Analysis Batch: 6327

Client Sample ID: GBR-24D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Manganese	0.65		2.50	3.08		mg/L		97	70 - 130		

Lab Sample ID: 885-5359-11 MSD
Matrix: Water
Analysis Batch: 6327

Client Sample ID: GBR-24D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.65		2.50	3.08		mg/L		97	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-6177/14
Matrix: Water
Analysis Batch: 6177

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 08:57	1

Lab Sample ID: MB 885-6177/16
Matrix: Water
Analysis Batch: 6177

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 09:03	1

Lab Sample ID: LCS 885-6177/15
Matrix: Water
Analysis Batch: 6177

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	0.0125	0.0126		mg/L		101	85 - 115		

Lab Sample ID: LCS 885-6177/17
Matrix: Water
Analysis Batch: 6177

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	0.0125	0.0128		mg/L		102	85 - 115		

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-6177/10				Client Sample ID: Lab Control Sample							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 6177											
Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Lead			0.000500	0.000479	J	mg/L		96	50 - 150		

Lab Sample ID: 885-5359-9 MS				Client Sample ID: GBR-39							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	ND		0.0625	0.0648		mg/L		104	70 - 130		

Lab Sample ID: 885-5359-9 MSD				Client Sample ID: GBR-39							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		0.0625	0.0607		mg/L		97	70 - 130	6	20

Lab Sample ID: 885-5359-10 MS				Client Sample ID: GRW-13							
Matrix: Water				Prep Type: Dissolved							
Analysis Batch: 6177											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Lead	ND		0.0625	0.0602		mg/L		96	70 - 130		

QC Association Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

GC/MS VOA

Analysis Batch: 6081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5359-1	GBR-41R	Total/NA	Water	8260B	
885-5359-2	GBR-34	Total/NA	Water	8260B	
885-5359-3	GBR-22	Total/NA	Water	8260B	
885-5359-4	GBR-59	Total/NA	Water	8260B	
885-5359-5	GBR-60	Total/NA	Water	8260B	
885-5359-6	GBR-7	Total/NA	Water	8260B	
885-5359-7	GBR-21D	Total/NA	Water	8260B	
MB 885-6081/3	Method Blank	Total/NA	Water	8260B	
STOBLK 885-6081/26	Method Blank	Total/NA	Water	8260B	
LCS 885-6081/2	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 6262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5359-8	GRW-11	Total/NA	Water	8260B	
885-5359-9	GBR-39	Total/NA	Water	8260B	
885-5359-10	GRW-13	Total/NA	Water	8260B	
885-5359-11	GBR-24D	Total/NA	Water	8260B	
MB 885-6262/3	Method Blank	Total/NA	Water	8260B	
STOBLK 885-6262/11	Method Blank	Total/NA	Water	8260B	
LCS 885-6262/2	Lab Control Sample	Total/NA	Water	8260B	
885-5359-9 MS	GBR-39	Total/NA	Water	8260B	
885-5359-9 MSD	GBR-39	Total/NA	Water	8260B	

Metals

Analysis Batch: 6177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5359-1	GBR-41R	Dissolved	Water	200.8	
885-5359-2	GBR-34	Dissolved	Water	200.8	
885-5359-3	GBR-22	Dissolved	Water	200.8	
885-5359-4	GBR-59	Dissolved	Water	200.8	
885-5359-5	GBR-60	Dissolved	Water	200.8	
885-5359-6	GBR-7	Dissolved	Water	200.8	
885-5359-7	GBR-21D	Dissolved	Water	200.8	
885-5359-8	GRW-11	Dissolved	Water	200.8	
885-5359-9	GBR-39	Dissolved	Water	200.8	
885-5359-10	GRW-13	Dissolved	Water	200.8	
885-5359-11	GBR-24D	Dissolved	Water	200.8	
MB 885-6177/14	Method Blank	Total/NA	Water	200.8	
MB 885-6177/16	Method Blank	Total/NA	Water	200.8	
LCS 885-6177/15	Lab Control Sample	Total/NA	Water	200.8	
LCS 885-6177/17	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-6177/10	Lab Control Sample	Total/NA	Water	200.8	
885-5359-9 MS	GBR-39	Dissolved	Water	200.8	
885-5359-9 MSD	GBR-39	Dissolved	Water	200.8	
885-5359-10 MS	GRW-13	Dissolved	Water	200.8	

Analysis Batch: 6327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5359-1	GBR-41R	Dissolved	Water	200.7 Rev 4.4	
885-5359-2	GBR-34	Dissolved	Water	200.7 Rev 4.4	

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QC Association Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Metals (Continued)

Analysis Batch: 6327 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5359-3	GBR-22	Dissolved	Water	200.7 Rev 4.4	
885-5359-4	GBR-59	Dissolved	Water	200.7 Rev 4.4	
885-5359-5	GBR-60	Dissolved	Water	200.7 Rev 4.4	
885-5359-6	GBR-7	Dissolved	Water	200.7 Rev 4.4	
885-5359-7	GBR-21D	Dissolved	Water	200.7 Rev 4.4	
885-5359-8	GRW-11	Dissolved	Water	200.7 Rev 4.4	
885-5359-9	GBR-39	Dissolved	Water	200.7 Rev 4.4	
885-5359-10	GRW-13	Dissolved	Water	200.7 Rev 4.4	
885-5359-11	GBR-24D	Dissolved	Water	200.7 Rev 4.4	
MB 885-6327/16	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-6327/18	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-6327/17	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-6327/13	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-5359-10 MS	GRW-13	Dissolved	Water	200.7 Rev 4.4	
885-5359-10 MSD	GRW-13	Dissolved	Water	200.7 Rev 4.4	
885-5359-11 MS	GBR-24D	Dissolved	Water	200.7 Rev 4.4	
885-5359-11 MSD	GBR-24D	Dissolved	Water	200.7 Rev 4.4	

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-41R
Date Collected: 05/30/24 10:10
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 20:40
Dissolved	Analysis	200.7 Rev 4.4		10	6327	VP	EET ALB	06/07/24 13:37
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:31

Client Sample ID: GBR-34
Date Collected: 05/30/24 10:50
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 21:05
Dissolved	Analysis	200.7 Rev 4.4		10	6327	VP	EET ALB	06/07/24 13:39
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 11:31

Client Sample ID: GBR-22
Date Collected: 05/30/24 11:05
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 21:29
Dissolved	Analysis	200.7 Rev 4.4		10	6327	VP	EET ALB	06/07/24 13:42
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:34

Client Sample ID: GBR-59
Date Collected: 05/30/24 11:22
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 21:54
Dissolved	Analysis	200.7 Rev 4.4		1	6327	VP	EET ALB	06/07/24 12:52
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:37

Client Sample ID: GBR-60
Date Collected: 05/30/24 11:50
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 22:18
Dissolved	Analysis	200.7 Rev 4.4		5	6327	VP	EET ALB	06/07/24 13:44
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:40

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-7
Date Collected: 05/30/24 12:30
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 22:43
Dissolved	Analysis	200.7 Rev 4.4		10	6327	VP	EET ALB	06/07/24 13:46
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:43

Client Sample ID: GBR-21D
Date Collected: 05/30/24 12:50
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6081	CM	EET ALB	06/03/24 23:07
Dissolved	Analysis	200.7 Rev 4.4		1	6327	VP	EET ALB	06/07/24 13:05
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:46

Client Sample ID: GRW-11
Date Collected: 05/30/24 13:10
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6262	CM	EET ALB	06/05/24 13:00
Dissolved	Analysis	200.7 Rev 4.4		10	6327	VP	EET ALB	06/07/24 13:48
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:49

Client Sample ID: GBR-39
Date Collected: 05/30/24 13:40
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6262	CM	EET ALB	06/05/24 13:24
Dissolved	Analysis	200.7 Rev 4.4		1	6327	VP	EET ALB	06/07/24 13:10
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 13:52

Client Sample ID: GRW-13
Date Collected: 05/30/24 14:10
Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6262	CM	EET ALB	06/05/24 14:38
Dissolved	Analysis	200.7 Rev 4.4		5	6327	VP	EET ALB	06/07/24 13:51
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 14:20

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Client Sample ID: GBR-24D

Date Collected: 05/30/24 14:40

Date Received: 05/31/24 07:00

Lab Sample ID: 885-5359-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6262	CM	EET ALB	06/05/24 15:02
Dissolved	Analysis	200.7 Rev 4.4		5	6327	VP	EET ALB	06/07/24 13:57
Dissolved	Analysis	200.8		5	6177	ES	EET ALB	06/05/24 14:26

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5359-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4		Water	Manganese
200.8		Water	Lead
8260B		Water	1-Methylnaphthalene
8260B		Water	2-Methylnaphthalene
8260B		Water	Benzene
8260B		Water	Naphthalene
Oregon	NELAP	NM100001	02-25-25

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-5359-1

Login Number: 5359

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: E. Carroll

Ensolum LLC

776 E 2nd Avenue

Durango, Colorado 81301

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JOB DESCRIPTION

Giant Bloomfield Refinery

JOB NUMBER

885-5411-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
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(505)345-3975

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Revision 1

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Laboratory Job ID: 885-5411-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refiery

Job ID: 885-5411-1

Qualifiers

Metals	
Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: Giant Bloomfield Refinery

Job ID: 885-5411-1

Job ID: 885-5411-1Eurofins Albuquerque

Job Narrative
885-5411-1

REVISION

The report being provided is a revision of the original report sent on 6/10/2024. The report (revision 1) is being revised due to client wants 1 and 2-methylnaphthalenes reported.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 6/1/2024 6:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C.

Receipt Exceptions

1 and 2-methylnaphthalenes added to 8260

GC/MS VOA

Method 8260B: 1 and 2-methylnaphthalenes added to 8260

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-35 Lab Sample ID: 885-5411-1
Date Collected: 05/31/24 10:00 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		5.0	ug/L			06/06/24 23:25	5	
Naphthalene	16		10	ug/L			06/06/24 23:25	5	
2-Methylnaphthalene	ND		20	ug/L			06/06/24 23:25	5	
1-Methylnaphthalene	110		20	ug/L			06/06/24 23:25	5	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/06/24 23:25	5	
Toluene-d8 (Surr)	96		70 - 130				06/06/24 23:25	5	
4-Bromofluorobenzene (Surr)	112		70 - 130				06/06/24 23:25	5	
Dibromofluoromethane (Surr)	90		70 - 130				06/06/24 23:25	5	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.86		0.0020	mg/L			06/03/24 16:21	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:05	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-53 Lab Sample ID: 885-5411-2
Date Collected: 05/31/24 10:30 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/06/24 23:49	1	
Naphthalene	ND		2.0	ug/L			06/06/24 23:49	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 23:49	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 23:49	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				06/06/24 23:49	1	
Toluene-d8 (Surr)	94		70 - 130				06/06/24 23:49	1	
4-Bromofluorobenzene (Surr)	113		70 - 130				06/06/24 23:49	1	
Dibromofluoromethane (Surr)	91		70 - 130				06/06/24 23:49	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.48		0.0020	mg/L			06/03/24 16:30	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:08	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-31 Lab Sample ID: 885-5411-3
Date Collected: 05/31/24 10:50 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/07/24 00:14	1	
Naphthalene	ND		2.0	ug/L			06/07/24 00:14	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 00:14	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 00:14	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				06/07/24 00:14	1	
Toluene-d8 (Surr)	94		70 - 130				06/07/24 00:14	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/07/24 00:14	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/07/24 00:14	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	1.2		0.010	mg/L			06/03/24 17:04	5	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:11	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refiery

Job ID: 885-5411-1

Client Sample ID: GRW-12 Lab Sample ID: 885-5411-4
Date Collected: 05/31/24 11:10 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		2.0	ug/L			06/07/24 00:38	2	
Naphthalene	ND		4.0	ug/L			06/07/24 00:38	2	
2-Methylnaphthalene	ND		8.0	ug/L			06/07/24 00:38	2	
1-Methylnaphthalene	ND		8.0	ug/L			06/07/24 00:38	2	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				06/07/24 00:38	2	
Toluene-d8 (Surr)	93		70 - 130				06/07/24 00:38	2	
4-Bromofluorobenzene (Surr)	109		70 - 130				06/07/24 00:38	2	
Dibromofluoromethane (Surr)	91		70 - 130				06/07/24 00:38	2	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.20		0.0020	mg/L			06/03/24 16:35	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:13	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-52 Lab Sample ID: 885-5411-5
Date Collected: 05/31/24 12:00 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/07/24 01:03	1	
Naphthalene	ND		2.0	ug/L			06/07/24 01:03	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 01:03	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 01:03	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				06/07/24 01:03	1	
Toluene-d8 (Surr)	93		70 - 130				06/07/24 01:03	1	
4-Bromofluorobenzene (Surr)	110		70 - 130				06/07/24 01:03	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/07/24 01:03	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.085		0.0020	mg/L			06/03/24 16:37	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:16	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-17 Lab Sample ID: 885-5411-6
Date Collected: 05/31/24 12:40 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/07/24 01:27	1	
Naphthalene	ND		2.0	ug/L			06/07/24 01:27	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 01:27	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 01:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				06/07/24 01:27	1	
Toluene-d8 (Surr)	92		70 - 130				06/07/24 01:27	1	
4-Bromofluorobenzene (Surr)	111		70 - 130				06/07/24 01:27	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/07/24 01:27	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.0092		0.0020	mg/L			06/03/24 16:39	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:19	1	

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-32

Lab Sample ID: 885-5411-7

Date Collected: 05/31/24 13:10

Matrix: Water

Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/07/24 01:52	1
Naphthalene	ND		2.0	ug/L			06/07/24 01:52	1
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 01:52	1
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		06/07/24 01:52	1
Toluene-d8 (Surr)	93		70 - 130		06/07/24 01:52	1
4-Bromofluorobenzene (Surr)	108		70 - 130		06/07/24 01:52	1
Dibromofluoromethane (Surr)	91		70 - 130		06/07/24 01:52	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.24		0.0020	mg/L			06/03/24 16:42	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	^+	0.00050	mg/L			06/05/24 10:22	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-50 Lab Sample ID: 885-5411-8
Date Collected: 05/31/24 13:30 Matrix: Water
Date Received: 06/01/24 06:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			06/07/24 02:16	1	
Naphthalene	ND		2.0	ug/L			06/07/24 02:16	1	
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 02:16	1	
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 02:16	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				06/07/24 02:16	1	
Toluene-d8 (Surr)	94		70 - 130				06/07/24 02:16	1	
4-Bromofluorobenzene (Surr)	110		70 - 130				06/07/24 02:16	1	
Dibromofluoromethane (Surr)	92		70 - 130				06/07/24 02:16	1	
Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Manganese	0.030		0.0020	mg/L			06/03/24 16:50	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND	^+	0.00050	mg/L			06/05/24 10:25	1	

QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refiery

Job ID: 885-5411-1

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

Lab Sample ID: MB 885-6297/3

Matrix: Water

Analysis Batch: 6297

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/06/24 16:52	1
Naphthalene	ND		2.0	ug/L			06/06/24 16:52	1
2-Methylnaphthalene	ND		4.0	ug/L			06/06/24 16:52	1
1-Methylnaphthalene	ND		4.0	ug/L			06/06/24 16:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		06/06/24 16:52	1
Toluene-d8 (Surr)	93		70 - 130		06/06/24 16:52	1
4-Bromofluorobenzene (Surr)	111		70 - 130		06/06/24 16:52	1
Dibromofluoromethane (Surr)	89		70 - 130		06/06/24 16:52	1

Lab Sample ID: LCS 885-6297/2

Matrix: Water

Analysis Batch: 6297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.5		ug/L		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Toluene-d8 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	89		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-6061/17

Matrix: Water

Analysis Batch: 6061

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			06/03/24 16:00	1

Lab Sample ID: LCS 885-6061/19

Matrix: Water

Analysis Batch: 6061

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.468		mg/L		94	85 - 115

Lab Sample ID: LLCS 885-6061/18

Matrix: Water

Analysis Batch: 6061

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00198	J	mg/L		99	50 - 150

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MRL 885-6061/14
Matrix: Water
Analysis Batch: 6061

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00199	J	mg/L		99	50 - 150

Lab Sample ID: 885-5411-7 MS
Matrix: Water
Analysis Batch: 6061

Client Sample ID: GBR-32
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.24		0.500	0.618		mg/L		76	70 - 130

Lab Sample ID: 885-5411-7 MSD
Matrix: Water
Analysis Batch: 6061

Client Sample ID: GBR-32
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.24		0.500	0.746		mg/L		101	70 - 130	19	20

Lab Sample ID: 885-5411-8 MS
Matrix: Water
Analysis Batch: 6061

Client Sample ID: GBR-50
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.030		0.500	0.455		mg/L		85	70 - 130

Lab Sample ID: 885-5411-8 MSD
Matrix: Water
Analysis Batch: 6061

Client Sample ID: GBR-50
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.030		0.500	0.383		mg/L		71	70 - 130	17	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-6177/12
Matrix: Water
Analysis Batch: 6177

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/05/24 08:51	1

Lab Sample ID: LCS 885-6177/13
Matrix: Water
Analysis Batch: 6177

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0124		mg/L		99	85 - 115

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QC Sample Results

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MRL 885-6177/10				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 6177							
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.000500	0.000479	J	mg/L		96	50 - 150

QC Association Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

GC/MS VOA

Analysis Batch: 6297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5411-1	GBR-35	Total/NA	Water	8260B	
885-5411-2	GBR-53	Total/NA	Water	8260B	
885-5411-3	GBR-31	Total/NA	Water	8260B	
885-5411-4	GRW-12	Total/NA	Water	8260B	
885-5411-5	GBR-52	Total/NA	Water	8260B	
885-5411-6	GBR-17	Total/NA	Water	8260B	
885-5411-7	GBR-32	Total/NA	Water	8260B	
885-5411-8	GBR-50	Total/NA	Water	8260B	
MB 885-6297/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6297/2	Lab Control Sample	Total/NA	Water	8260B	

Metals

Analysis Batch: 6061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5411-1	GBR-35	Dissolved	Water	200.7 Rev 4.4	
885-5411-2	GBR-53	Dissolved	Water	200.7 Rev 4.4	
885-5411-3	GBR-31	Dissolved	Water	200.7 Rev 4.4	
885-5411-4	GRW-12	Dissolved	Water	200.7 Rev 4.4	
885-5411-5	GBR-52	Dissolved	Water	200.7 Rev 4.4	
885-5411-6	GBR-17	Dissolved	Water	200.7 Rev 4.4	
885-5411-7	GBR-32	Dissolved	Water	200.7 Rev 4.4	
885-5411-8	GBR-50	Dissolved	Water	200.7 Rev 4.4	
MB 885-6061/17	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-6061/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-6061/18	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-6061/14	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
885-5411-7 MS	GBR-32	Dissolved	Water	200.7 Rev 4.4	
885-5411-7 MSD	GBR-32	Dissolved	Water	200.7 Rev 4.4	
885-5411-8 MS	GBR-50	Dissolved	Water	200.7 Rev 4.4	
885-5411-8 MSD	GBR-50	Dissolved	Water	200.7 Rev 4.4	

Analysis Batch: 6177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5411-1	GBR-35	Dissolved	Water	200.8	
885-5411-2	GBR-53	Dissolved	Water	200.8	
885-5411-3	GBR-31	Dissolved	Water	200.8	
885-5411-4	GRW-12	Dissolved	Water	200.8	
885-5411-5	GBR-52	Dissolved	Water	200.8	
885-5411-6	GBR-17	Dissolved	Water	200.8	
885-5411-7	GBR-32	Dissolved	Water	200.8	
885-5411-8	GBR-50	Dissolved	Water	200.8	
MB 885-6177/12	Method Blank	Total/NA	Water	200.8	
LCS 885-6177/13	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-6177/10	Lab Control Sample	Total/NA	Water	200.8	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-35
Date Collected: 05/31/24 10:00
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	6297	CM	EET ALB	06/06/24 23:25
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:21
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:05

Client Sample ID: GBR-53
Date Collected: 05/31/24 10:30
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/06/24 23:49
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:30
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:08

Client Sample ID: GBR-31
Date Collected: 05/31/24 10:50
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/07/24 00:14
Dissolved	Analysis	200.7 Rev 4.4		5	6061	VP	EET ALB	06/03/24 17:04
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:11

Client Sample ID: GRW-12
Date Collected: 05/31/24 11:10
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6297	CM	EET ALB	06/07/24 00:38
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:35
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:13

Client Sample ID: GBR-52
Date Collected: 05/31/24 12:00
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/07/24 01:03
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:37
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:16

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Client Sample ID: GBR-17
Date Collected: 05/31/24 12:40
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/07/24 01:27
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:39
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:19

Client Sample ID: GBR-32
Date Collected: 05/31/24 13:10
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/07/24 01:52
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:42
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:22

Client Sample ID: GBR-50
Date Collected: 05/31/24 13:30
Date Received: 06/01/24 06:45

Lab Sample ID: 885-5411-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6297	CM	EET ALB	06/07/24 02:16
Dissolved	Analysis	200.7 Rev 4.4		1	6061	VP	EET ALB	06/03/24 16:50
Dissolved	Analysis	200.8		1	6177	ES	EET ALB	06/05/24 10:25

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: Giant Bloomfield Refinery

Job ID: 885-5411-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4		Water	Manganese
200.8		Water	Lead
8260B		Water	1-Methylnaphthalene
8260B		Water	2-Methylnaphthalene
8260B		Water	Benzene
8260B		Water	Naphthalene
Oregon	NELAP	NM100001	02-25-25

athomson@ensci.univ

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-5411-1

Login Number: 5411

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301
Generated 6/11/2024 9:25:58 AM

JOB DESCRIPTION

GBR

JOB NUMBER

885-5475-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
6/11/2024 9:25:58 AM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum LLC
Project/Site: GBR

Laboratory Job ID: 885-5475-1

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Definitions/Glossary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum LLC
Project: GBR

Job ID: 885-5475-1

Job ID: 885-5475-1Eurofins Albuquerque

Job Narrative
885-5475-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 6/4/2024 7:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Client Sample ID: GRW-10

Lab Sample ID: 885-5475-1

Date Collected: 06/03/24 10:20

Matrix: Water

Date Received: 06/04/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/08/24 01:51	1
Naphthalene	ND		2.0	ug/L			06/08/24 01:51	1
1-Methylnaphthalene	ND		4.0	ug/L			06/08/24 01:51	1
2-Methylnaphthalene	ND		4.0	ug/L			06/08/24 01:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		06/08/24 01:51	1
Toluene-d8 (Surr)	99		70 - 130		06/08/24 01:51	1
4-Bromofluorobenzene (Surr)	102		70 - 130		06/08/24 01:51	1
Dibromofluoromethane (Surr)	99		70 - 130		06/08/24 01:51	1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.42		0.0020	mg/L			06/04/24 12:50	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/06/24 11:47	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Client Sample ID: SHS-13

Lab Sample ID: 885-5475-2

Date Collected: 06/03/24 11:00

Matrix: Water

Date Received: 06/04/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			06/08/24 02:19	2
Naphthalene	ND		4.0	ug/L			06/08/24 02:19	2
1-Methylnaphthalene	ND		8.0	ug/L			06/08/24 02:19	2
2-Methylnaphthalene	ND		8.0	ug/L			06/08/24 02:19	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		06/08/24 02:19	2
Toluene-d8 (Surr)	98		70 - 130		06/08/24 02:19	2
4-Bromofluorobenzene (Surr)	99		70 - 130		06/08/24 02:19	2
Dibromofluoromethane (Surr)	98		70 - 130		06/08/24 02:19	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.5		0.040	mg/L			06/04/24 12:57	20

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/06/24 11:56	1

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Client Sample ID: SHS-9

Lab Sample ID: 885-5475-3

Date Collected: 06/03/24 11:30

Matrix: Water

Date Received: 06/04/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0	ug/L			06/08/24 02:48	2
Naphthalene	ND		4.0	ug/L			06/08/24 02:48	2
1-Methylnaphthalene	ND		8.0	ug/L			06/08/24 02:48	2
2-Methylnaphthalene	ND		8.0	ug/L			06/08/24 02:48	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		06/08/24 02:48	2
Toluene-d8 (Surr)	97		70 - 130		06/08/24 02:48	2
4-Bromofluorobenzene (Surr)	98		70 - 130		06/08/24 02:48	2
Dibromofluoromethane (Surr)	98		70 - 130		06/08/24 02:48	2

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.16		0.0020	mg/L			06/04/24 12:55	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/06/24 12:02	1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

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

Lab Sample ID: MB 885-6356/3

Matrix: Water

Analysis Batch: 6356

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			06/07/24 10:09	1
Naphthalene	ND		2.0	ug/L			06/07/24 10:09	1
1-Methylnaphthalene	ND		4.0	ug/L			06/07/24 10:09	1
2-Methylnaphthalene	ND		4.0	ug/L			06/07/24 10:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		06/07/24 10:09	1
Toluene-d8 (Surr)	99		70 - 130		06/07/24 10:09	1
4-Bromofluorobenzene (Surr)	98		70 - 130		06/07/24 10:09	1
Dibromofluoromethane (Surr)	95		70 - 130		06/07/24 10:09	1

Lab Sample ID: LCS 885-6356/2

Matrix: Water

Analysis Batch: 6356

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	21.8		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Toluene-d8 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	94		70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 885-6105/18

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L			06/04/24 12:38	1

Lab Sample ID: LCS 885-6105/20

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.500	0.480		mg/L		96	85 - 115

Lab Sample ID: LLCS 885-6105/19

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00185	J	mg/L		92	50 - 150

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MRL 885-6105/15

Matrix: Water

Analysis Batch: 6105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.00200	0.00188	J	mg/L		94	50 - 150

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-6245/12

Matrix: Water

Analysis Batch: 6245

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			06/06/24 11:35	1

Lab Sample ID: LCS 885-6245/13

Matrix: Water

Analysis Batch: 6245

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0123		mg/L		98	85 - 115

Lab Sample ID: MRL 885-6245/10

Matrix: Water

Analysis Batch: 6245

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.000500	0.000488	J	mg/L		98	50 - 150

Lab Sample ID: 885-5475-1 MS

Matrix: Water

Analysis Batch: 6245

Client Sample ID: GRW-10

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		0.0125	0.0117		mg/L		94	70 - 130

Lab Sample ID: 885-5475-1 MSD

Matrix: Water

Analysis Batch: 6245

Client Sample ID: GRW-10

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		0.0125	0.0123		mg/L		98	70 - 130	5	20

Lab Sample ID: 885-5475-2 MS

Matrix: Water

Analysis Batch: 6245

Client Sample ID: SHS-13

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		0.0125	0.0119		mg/L		96	70 - 130

Eurofins Albuquerque

QC Association Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

GC/MS VOA

Analysis Batch: 6356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5475-1	GRW-10	Total/NA	Water	8260B	
885-5475-2	SHS-13	Total/NA	Water	8260B	
885-5475-3	SHS-9	Total/NA	Water	8260B	
MB 885-6356/3	Method Blank	Total/NA	Water	8260B	
LCS 885-6356/2	Lab Control Sample	Total/NA	Water	8260B	

Metals

Analysis Batch: 6105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5475-1	GRW-10	Dissolved	Water	200.7 Rev 4.4	
885-5475-2	SHS-13	Dissolved	Water	200.7 Rev 4.4	
885-5475-3	SHS-9	Dissolved	Water	200.7 Rev 4.4	
MB 885-6105/18	Method Blank	Total/NA	Water	200.7 Rev 4.4	
LCS 885-6105/20	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
LLCS 885-6105/19	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	
MRL 885-6105/15	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	

Analysis Batch: 6245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5475-1	GRW-10	Dissolved	Water	200.8	
885-5475-2	SHS-13	Dissolved	Water	200.8	
885-5475-3	SHS-9	Dissolved	Water	200.8	
MB 885-6245/12	Method Blank	Total/NA	Water	200.8	
LCS 885-6245/13	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-6245/10	Lab Control Sample	Total/NA	Water	200.8	
885-5475-1 MS	GRW-10	Dissolved	Water	200.8	
885-5475-1 MSD	GRW-10	Dissolved	Water	200.8	
885-5475-2 MS	SHS-13	Dissolved	Water	200.8	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Client Sample ID: GRW-10
Date Collected: 06/03/24 10:20
Date Received: 06/04/24 07:05

Lab Sample ID: 885-5475-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	6356	JR	EET ALB	06/08/24 01:51
Dissolved	Analysis	200.7 Rev 4.4		1	6105	VP	EET ALB	06/04/24 12:50
Dissolved	Analysis	200.8		1	6245	ES	EET ALB	06/06/24 11:47

Client Sample ID: SHS-13
Date Collected: 06/03/24 11:00
Date Received: 06/04/24 07:05

Lab Sample ID: 885-5475-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6356	JR	EET ALB	06/08/24 02:19
Dissolved	Analysis	200.7 Rev 4.4		20	6105	VP	EET ALB	06/04/24 12:57
Dissolved	Analysis	200.8		1	6245	ES	EET ALB	06/06/24 11:56

Client Sample ID: SHS-9
Date Collected: 06/03/24 11:30
Date Received: 06/04/24 07:05

Lab Sample ID: 885-5475-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	6356	JR	EET ALB	06/08/24 02:48
Dissolved	Analysis	200.7 Rev 4.4		1	6105	VP	EET ALB	06/04/24 12:55
Dissolved	Analysis	200.8		1	6245	ES	EET ALB	06/06/24 12:02

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum LLC
Project/Site: GBR

Job ID: 885-5475-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Chain-of-Custody Record

Client: EnsolumAttn: Stuart HydeMailing Address: 776 E 2nd AveDurangoPhone #: 303-842-9575email or Fax#: shyde@ensolum.com

QA/QC Package:

☒ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC☐ Other☒ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

G-BR

Project #:

07A2015003

Project Manager:

S. HydeSampler: ATOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 1.2 + 0.2 = 0.4 (°C)

Container Type and #

3x VOA1x Poly

Preservative Type

HClHNO3

HEAL No.

Analysis Request

BTX / MTBE / TMBs (8021)

TPH: 8015D (GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

BenzeneTotal NaphthaleneLead (Dissolved)Mn (Dissolved)

Remarks:

please call:athompson@ensolumReceived by: ChantlaetDate: 6/3/24Time: 1438Received by: ChantlaetDate: 6/4/24Time: 7:05Date: 6-3Time: 1430Relinquished by: Al ThomsonDate: 6/3/24Time: 1712Relinquished by: Chantlaet

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

HALL ENVIRO
ANALYSIS LAB

www.hallenvironmental.co

4901 Hawkins NE - Albuquerque, NM 885-5475 COC

Tel. 505-345-3975 Fax 505-345-4107

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Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-5475-1

Login Number: 5475

List Number: 1

Creator: McQuiston, Steven

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

- 1
- 2
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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 9/20/2024 8:33:58 AM

JOB DESCRIPTION

GBR

JOB NUMBER

885-11656-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
9/20/2024 8:33:58 AM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-11656-1



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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-11656-1

Job ID: 885-11656-1

Eurofins Albuquerque

Job Narrative 885-11656-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/12/2024 7:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): GBR-34 (885-11656-1), GBW-12 (885-11656-2), GBW-13 (885-11656-3), GBW-11 (885-11656-4), GBR-31 (885-11656-5), GBR-30 (885-11656-6), GBR-24D (885-11656-7), GBR-17 (885-11656-8), GBR-32 (885-11656-9), GBR-48 (885-11656-10), GBR-50 (885-11656-11) and Trip Blank (885-11656-12). The container labels list GBR-11, while the COC lists GRW-11. The client was contacted, and the lab was instructed to proceed with GRW-11.

GC/MS VOA

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 885-12295 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 200.8 - Dissolved: The following samples were diluted to bring the concentration of target analytes within the calibration range: GBR-34 (885-11656-1), GBW-11 (885-11656-4) and GBR-31 (885-11656-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-34

Lab Sample ID: 885-11656-1

Date Collected: 09/11/24 13:52

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 17:15	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 17:15	1	
Benzene	ND	F1	1.0	ug/L			09/16/24 17:15	1	
Naphthalene	ND		2.0	ug/L			09/16/24 17:15	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				09/16/24 17:15	1	
Toluene-d8 (Surr)	100		70 - 130				09/16/24 17:15	1	
4-Bromofluorobenzene (Surr)	104		70 - 130				09/16/24 17:15	1	
Dibromofluoromethane (Surr)	107		70 - 130				09/16/24 17:15	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/17/24 20:52	09/19/24 00:00	1	
Manganese	1.8		0.020	mg/L		09/17/24 20:52	09/19/24 03:32	10	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBW-12

Lab Sample ID: 885-11656-2

Date Collected: 09/11/24 13:12

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 18:28	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 18:28	1	
Benzene	ND		1.0	ug/L			09/16/24 18:28	1	
Naphthalene	ND		2.0	ug/L			09/16/24 18:28	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				09/16/24 18:28	1	
Toluene-d8 (Surr)	101		70 - 130				09/16/24 18:28	1	
4-Bromofluorobenzene (Surr)	104		70 - 130				09/16/24 18:28	1	
Dibromofluoromethane (Surr)	103		70 - 130				09/16/24 18:28	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:01	1	
Manganese	0.52		0.0020	mg/L		09/18/24 08:30	09/18/24 21:01	1	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBW-13

Lab Sample ID: 885-11656-3

Date Collected: 09/11/24 11:55

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 18:52	1
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 18:52	1
Benzene	ND		1.0	ug/L			09/16/24 18:52	1
Naphthalene	ND		2.0	ug/L			09/16/24 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		09/16/24 18:52	1
Toluene-d8 (Surr)	101		70 - 130		09/16/24 18:52	1
4-Bromofluorobenzene (Surr)	103		70 - 130		09/16/24 18:52	1
Dibromofluoromethane (Surr)	102		70 - 130		09/16/24 18:52	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/17/24 20:52	09/19/24 00:03	1
Manganese	0.51		0.0020	mg/L		09/17/24 20:52	09/19/24 00:03	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBW-11 Lab Sample ID: 885-11656-4
Date Collected: 09/11/24 11:20 Matrix: Water
Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 19:17	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 19:17	1	
Benzene	ND		1.0	ug/L			09/16/24 19:17	1	
Naphthalene	ND		2.0	ug/L			09/16/24 19:17	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				09/16/24 19:17	1	
Toluene-d8 (Surr)	100		70 - 130				09/16/24 19:17	1	
4-Bromofluorobenzene (Surr)	101		70 - 130				09/16/24 19:17	1	
Dibromofluoromethane (Surr)	105		70 - 130				09/16/24 19:17	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:03	1	
Manganese	1.4		0.020	mg/L		09/18/24 08:30	09/19/24 03:26	10	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-31

Lab Sample ID: 885-11656-5

Date Collected: 09/11/24 09:50

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 19:41	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 19:41	1	
Benzene	ND		1.0	ug/L			09/16/24 19:41	1	
Naphthalene	ND		2.0	ug/L			09/16/24 19:41	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				09/16/24 19:41	1	
Toluene-d8 (Surr)	100		70 - 130				09/16/24 19:41	1	
4-Bromofluorobenzene (Surr)	102		70 - 130				09/16/24 19:41	1	
Dibromofluoromethane (Surr)	106		70 - 130				09/16/24 19:41	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:20	1	
Manganese	8.7		0.10	mg/L		09/18/24 08:30	09/19/24 03:28	50	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-30

Lab Sample ID: 885-11656-6

Date Collected: 09/10/24 15:20

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 20:05	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 20:05	1	
Benzene	ND		1.0	ug/L			09/16/24 20:05	1	
Naphthalene	ND		2.0	ug/L			09/16/24 20:05	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				09/16/24 20:05	1	
Toluene-d8 (Surr)	100		70 - 130				09/16/24 20:05	1	
4-Bromofluorobenzene (Surr)	101		70 - 130				09/16/24 20:05	1	
Dibromofluoromethane (Surr)	106		70 - 130				09/16/24 20:05	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/17/24 20:52	09/19/24 00:05	1	
Manganese	0.0066		0.0020	mg/L		09/17/24 20:52	09/19/24 00:05	1	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-24D

Lab Sample ID: 885-11656-7

Date Collected: 09/10/24 14:45

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 20:30	1
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 20:30	1
Benzene	ND		1.0	ug/L			09/16/24 20:30	1
Naphthalene	ND		2.0	ug/L			09/16/24 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		09/16/24 20:30	1
Toluene-d8 (Surr)	99		70 - 130		09/16/24 20:30	1
4-Bromofluorobenzene (Surr)	102		70 - 130		09/16/24 20:30	1
Dibromofluoromethane (Surr)	104		70 - 130		09/16/24 20:30	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:23	1
Manganese	0.31		0.0020	mg/L		09/18/24 08:30	09/18/24 21:23	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-17

Lab Sample ID: 885-11656-8

Date Collected: 09/10/24 09:10

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 20:54	1
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 20:54	1
Benzene	ND		1.0	ug/L			09/16/24 20:54	1
Naphthalene	ND		2.0	ug/L			09/16/24 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		09/16/24 20:54	1
Toluene-d8 (Surr)	99		70 - 130		09/16/24 20:54	1
4-Bromofluorobenzene (Surr)	99		70 - 130		09/16/24 20:54	1
Dibromofluoromethane (Surr)	106		70 - 130		09/16/24 20:54	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:25	1
Manganese	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:25	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-32

Lab Sample ID: 885-11656-9

Date Collected: 09/10/24 10:18

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 21:18	1
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 21:18	1
Benzene	ND		1.0	ug/L			09/16/24 21:18	1
Naphthalene	ND		2.0	ug/L			09/16/24 21:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		09/16/24 21:18	1
Toluene-d8 (Surr)	100		70 - 130		09/16/24 21:18	1
4-Bromofluorobenzene (Surr)	101		70 - 130		09/16/24 21:18	1
Dibromofluoromethane (Surr)	106		70 - 130		09/16/24 21:18	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 21:27	1
Manganese	0.38		0.0020	mg/L		09/18/24 08:30	09/18/24 21:27	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-48

Lab Sample ID: 885-11656-10

Date Collected: 09/10/24 11:21

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 21:43	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 21:43	1	
Benzene	ND		1.0	ug/L			09/16/24 21:43	1	
Naphthalene	ND		2.0	ug/L			09/16/24 21:43	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				09/16/24 21:43	1	
Toluene-d8 (Surr)	100		70 - 130				09/16/24 21:43	1	
4-Bromofluorobenzene (Surr)	100		70 - 130				09/16/24 21:43	1	
Dibromofluoromethane (Surr)	106		70 - 130				09/16/24 21:43	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/17/24 20:52	09/19/24 00:07	1	
Manganese	ND		0.0020	mg/L		09/17/24 20:52	09/19/24 00:07	1	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-50

Lab Sample ID: 885-11656-11

Date Collected: 09/10/24 12:05

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 22:07	1
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 22:07	1
Benzene	ND		1.0	ug/L			09/16/24 22:07	1
Naphthalene	ND		2.0	ug/L			09/16/24 22:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		09/16/24 22:07	1
Toluene-d8 (Surr)	100		70 - 130		09/16/24 22:07	1
4-Bromofluorobenzene (Surr)	103		70 - 130		09/16/24 22:07	1
Dibromofluoromethane (Surr)	107		70 - 130		09/16/24 22:07	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/17/24 20:52	09/19/24 00:09	1
Manganese	0.041		0.0020	mg/L		09/17/24 20:52	09/19/24 00:09	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: Trip Blank

Lab Sample ID: 885-11656-12

Date Collected: 09/10/24 00:00

Matrix: Water

Date Received: 09/12/24 07:05

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 22:32	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 22:32	1	
Benzene	ND		1.0	ug/L			09/16/24 22:32	1	
Naphthalene	ND		2.0	ug/L			09/16/24 22:32	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				09/16/24 22:32	1	
Toluene-d8 (Surr)	99		70 - 130				09/16/24 22:32	1	
4-Bromofluorobenzene (Surr)	99		70 - 130				09/16/24 22:32	1	
Dibromofluoromethane (Surr)	107		70 - 130				09/16/24 22:32	1	

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

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

Lab Sample ID: MB 885-12295/1006

Matrix: Water

Analysis Batch: 12295

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.40	ug/L			09/16/24 12:46	1
2-Methylnaphthalene	ND		0.40	ug/L			09/16/24 12:46	1
Benzene	ND		0.10	ug/L			09/16/24 12:46	1
Naphthalene	ND		0.20	ug/L			09/16/24 12:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		09/16/24 12:46	1
Toluene-d8 (Surr)	100		70 - 130		09/16/24 12:46	1
4-Bromofluorobenzene (Surr)	99		70 - 130		09/16/24 12:46	1
Dibromofluoromethane (Surr)	102		70 - 130		09/16/24 12:46	1

Lab Sample ID: MB 885-12295/6

Matrix: Water

Analysis Batch: 12295

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/16/24 12:46	1
2-Methylnaphthalene	ND		4.0	ug/L			09/16/24 12:46	1
Benzene	ND		1.0	ug/L			09/16/24 12:46	1
Naphthalene	ND		2.0	ug/L			09/16/24 12:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130		09/16/24 12:46	1
Toluene-d8 (Surr)	100		70 - 130		09/16/24 12:46	1
4-Bromofluorobenzene (Surr)	99		70 - 130		09/16/24 12:46	1
Dibromofluoromethane (Surr)	102		70 - 130		09/16/24 12:46	1

Lab Sample ID: STOBK 885-12295/49

Matrix: Water

Analysis Batch: 12295

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	STOBK Result	STOBK Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		4.0	ug/L			09/17/24 06:38	1
2-Methylnaphthalene	ND		4.0	ug/L			09/17/24 06:38	1
Benzene	ND		1.0	ug/L			09/17/24 06:38	1
Naphthalene	ND		2.0	ug/L			09/17/24 06:38	1

Surrogate	STOBK %Recovery	STOBK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		09/17/24 06:38	1
Toluene-d8 (Surr)	101		70 - 130		09/17/24 06:38	1
4-Bromofluorobenzene (Surr)	99		70 - 130		09/17/24 06:38	1
Dibromofluoromethane (Surr)	103		70 - 130		09/17/24 06:38	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

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

Lab Sample ID: LCS 885-12295/5

Matrix: Water

Analysis Batch: 12295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			20.1	23.4		ug/L		117	70 - 130		
		LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	90		70 - 130								
Toluene-d8 (Surr)	101		70 - 130								
4-Bromofluorobenzene (Surr)	101		70 - 130								
Dibromofluoromethane (Surr)	99		70 - 130								

Lab Sample ID: 885-11656-1 MS

Matrix: Water

Analysis Batch: 12295

Client Sample ID: GBR-34

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND	F1	20.1	26.8	F1	ug/L		133	70 - 130		
		MS	MS								
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	95		70 - 130								
Toluene-d8 (Surr)	100		70 - 130								
4-Bromofluorobenzene (Surr)	103		70 - 130								
Dibromofluoromethane (Surr)	108		70 - 130								

Lab Sample ID: 885-11656-1 MSD

Matrix: Water

Analysis Batch: 12295

Client Sample ID: GBR-34

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND	F1	20.1	25.5		ug/L		127	70 - 130	5	20
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	95		70 - 130								
Toluene-d8 (Surr)	100		70 - 130								
4-Bromofluorobenzene (Surr)	103		70 - 130								
Dibromofluoromethane (Surr)	106		70 - 130								

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 860-187829/2-A

Matrix: Water

Analysis Batch: 188127

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 187829

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/17/24 20:52	09/18/24 23:32	1
Manganese	ND		0.0020	mg/L		09/17/24 20:52	09/18/24 23:32	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 860-187829/3-A

Matrix: Water

Analysis Batch: 188127

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 187829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.100	0.0958		mg/L		96	85 - 115
Manganese	0.100	0.0989		mg/L		99	85 - 115

Lab Sample ID: LCSD 860-187829/4-A

Matrix: Water

Analysis Batch: 188127

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 187829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.100	0.0968		mg/L		97	85 - 115	1	20
Manganese	0.100	0.0978		mg/L		98	85 - 115	1	20

Lab Sample ID: MB 860-187830/2-A

Matrix: Water

Analysis Batch: 188276

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 187830

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/17/24 21:00	09/19/24 03:41	1
Manganese	ND		0.0020	mg/L		09/17/24 21:00	09/19/24 03:41	1

Lab Sample ID: LLCS 860-187830/1-A

Matrix: Water

Analysis Batch: 188276

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 187830

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.00200	0.00194	J	mg/L		97	50 - 150
Manganese	0.00200	0.00220		mg/L		110	50 - 150

Lab Sample ID: MB 860-187911/1-A

Matrix: Water

Analysis Batch: 188127

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 187911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 20:06	1
Manganese	ND		0.0020	mg/L		09/18/24 08:30	09/18/24 20:06	1

Lab Sample ID: LCS 860-187911/2-A

Matrix: Water

Analysis Batch: 188127

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 187911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.100	0.0967		mg/L		97	85 - 115
Manganese	0.100	0.0987		mg/L		99	85 - 115

Lab Sample ID: LCSD 860-187911/3-A

Matrix: Water

Analysis Batch: 188127

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 187911

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.100	0.0994		mg/L		99	85 - 115	3	20
Manganese	0.100	0.101		mg/L		101	85 - 115	2	20

Eurofins Albuquerque

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

GC/MS VOA

Analysis Batch: 12295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11656-1	GBR-34	Total/NA	Water	8260B	
885-11656-2	GBW-12	Total/NA	Water	8260B	
885-11656-3	GBW-13	Total/NA	Water	8260B	
885-11656-4	GBW-11	Total/NA	Water	8260B	
885-11656-5	GBR-31	Total/NA	Water	8260B	
885-11656-6	GBR-30	Total/NA	Water	8260B	
885-11656-7	GBR-24D	Total/NA	Water	8260B	
885-11656-8	GBR-17	Total/NA	Water	8260B	
885-11656-9	GBR-32	Total/NA	Water	8260B	
885-11656-10	GBR-48	Total/NA	Water	8260B	
885-11656-11	GBR-50	Total/NA	Water	8260B	
885-11656-12	Trip Blank	Total/NA	Water	8260B	
MB 885-12295/1006	Method Blank	Total/NA	Water	8260B	
MB 885-12295/6	Method Blank	Total/NA	Water	8260B	
STOBLK 885-12295/49	Method Blank	Total/NA	Water	8260B	
LCS 885-12295/5	Lab Control Sample	Total/NA	Water	8260B	
885-11656-1 MS	GBR-34	Total/NA	Water	8260B	
885-11656-1 MSD	GBR-34	Total/NA	Water	8260B	

Metals

Prep Batch: 187829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11656-1	GBR-34	Dissolved	Water	200.8	
885-11656-3	GBW-13	Dissolved	Water	200.8	
885-11656-6	GBR-30	Dissolved	Water	200.8	
885-11656-10	GBR-48	Dissolved	Water	200.8	
885-11656-11	GBR-50	Dissolved	Water	200.8	
MB 860-187829/2-A	Method Blank	Total Recoverable	Water	200.8	
LCS 860-187829/3-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 860-187829/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

Prep Batch: 187830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-187830/2-A	Method Blank	Total Recoverable	Water	200.8	
LLCS 860-187830/1-A	Lab Control Sample	Total Recoverable	Water	200.8	

Prep Batch: 187911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11656-2	GBW-12	Dissolved	Water	200.8	
885-11656-4	GBW-11	Dissolved	Water	200.8	
885-11656-5	GBR-31	Dissolved	Water	200.8	
885-11656-7	GBR-24D	Dissolved	Water	200.8	
885-11656-8	GBR-17	Dissolved	Water	200.8	
885-11656-9	GBR-32	Dissolved	Water	200.8	
MB 860-187911/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 860-187911/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 860-187911/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

Eurofins Albuquerque

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Metals

Analysis Batch: 188127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11656-1	GBR-34	Dissolved	Water	200.8	187829
885-11656-2	GBW-12	Dissolved	Water	200.8	187911
885-11656-3	GBW-13	Dissolved	Water	200.8	187829
885-11656-4	GBW-11	Dissolved	Water	200.8	187911
885-11656-5	GBR-31	Dissolved	Water	200.8	187911
885-11656-6	GBR-30	Dissolved	Water	200.8	187829
885-11656-7	GBR-24D	Dissolved	Water	200.8	187911
885-11656-8	GBR-17	Dissolved	Water	200.8	187911
885-11656-9	GBR-32	Dissolved	Water	200.8	187911
885-11656-10	GBR-48	Dissolved	Water	200.8	187829
885-11656-11	GBR-50	Dissolved	Water	200.8	187829
MB 860-187829/2-A	Method Blank	Total Recoverable	Water	200.8	187829
MB 860-187911/1-A	Method Blank	Total Recoverable	Water	200.8	187911
LCS 860-187829/3-A	Lab Control Sample	Total Recoverable	Water	200.8	187829
LCS 860-187911/2-A	Lab Control Sample	Total Recoverable	Water	200.8	187911
LCSD 860-187829/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	187829
LCSD 860-187911/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	187911

Analysis Batch: 188276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11656-1	GBR-34	Dissolved	Water	200.8	187829
885-11656-4	GBW-11	Dissolved	Water	200.8	187911
885-11656-5	GBR-31	Dissolved	Water	200.8	187911
MB 860-187830/2-A	Method Blank	Total Recoverable	Water	200.8	187830
LLCS 860-187830/1-A	Lab Control Sample	Total Recoverable	Water	200.8	187830

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-34**Lab Sample ID: 885-11656-1****Date Collected: 09/11/24 13:52****Matrix: Water****Date Received: 09/12/24 07:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 17:15
Dissolved	Prep	200.8			187829	MD	EET HOU	09/17/24 20:52
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/19/24 00:00
Dissolved	Prep	200.8			187829	MD	EET HOU	09/17/24 20:52
Dissolved	Analysis	200.8		10	188276	DP	EET HOU	09/19/24 03:32

Client Sample ID: GBW-12**Lab Sample ID: 885-11656-2****Date Collected: 09/11/24 13:12****Matrix: Water****Date Received: 09/12/24 07:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 18:28
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/18/24 21:01

Client Sample ID: GBW-13**Lab Sample ID: 885-11656-3****Date Collected: 09/11/24 11:55****Matrix: Water****Date Received: 09/12/24 07:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 18:52
Dissolved	Prep	200.8			187829	MD	EET HOU	09/17/24 20:52
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/19/24 00:03

Client Sample ID: GBW-11**Lab Sample ID: 885-11656-4****Date Collected: 09/11/24 11:20****Matrix: Water****Date Received: 09/12/24 07:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 19:17
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/18/24 21:03
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		10	188276	DP	EET HOU	09/19/24 03:26

Client Sample ID: GBR-31**Lab Sample ID: 885-11656-5****Date Collected: 09/11/24 09:50****Matrix: Water****Date Received: 09/12/24 07:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 19:41
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/18/24 21:20
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		50	188276	DP	EET HOU	09/19/24 03:28

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-30
Date Collected: 09/10/24 15:20
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 20:05
Dissolved	Prep	200.8			187829	MD	EET HOU	09/17/24 20:52
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/19/24 00:05

Client Sample ID: GBR-24D
Date Collected: 09/10/24 14:45
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 20:30
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/18/24 21:23

Client Sample ID: GBR-17
Date Collected: 09/10/24 09:10
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 20:54
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/18/24 21:25

Client Sample ID: GBR-32
Date Collected: 09/10/24 10:18
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 21:18
Dissolved	Prep	200.8			187911	MD	EET HOU	09/18/24 08:30
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/18/24 21:27

Client Sample ID: GBR-48
Date Collected: 09/10/24 11:21
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 21:43
Dissolved	Prep	200.8			187829	MD	EET HOU	09/17/24 20:52
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/19/24 00:07

Client Sample ID: GBR-50
Date Collected: 09/10/24 12:05
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 22:07

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Client Sample ID: GBR-50
Date Collected: 09/10/24 12:05
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	200.8			187829	MD	EET HOU	09/17/24 20:52
Dissolved	Analysis	200.8		1	188127	SHZ	EET HOU	09/19/24 00:09

Client Sample ID: Trip Blank
Date Collected: 09/10/24 00:00
Date Received: 09/12/24 07:05

Lab Sample ID: 885-11656-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12295	CM	EET ALB	09/16/24 22:32

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11656-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-25
Florida	NELAP	E871002	06-30-25
Louisiana (All)	NELAP	03054	06-30-25
Texas	NELAP	T104704215	06-30-25
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-11656-1

Login Number: 11656

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-11656-1

Login Number: 11656

List Number: 2

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 09/13/24 11:29 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 9/24/2024 2:35:26 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-11759-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-11759-1

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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-11759-1

Job ID: 885-11759-1

Eurofins Albuquerque

**Job Narrative
885-11759-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/13/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) and Matrix Spike (MS) for analytical batch 885-12450 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 200.8 - Dissolved: The following samples were diluted to bring the concentration of target analytes within the calibration range: GRW-2 (885-11759-1), GRW-4 (885-11759-4), GBR-13 (885-11759-5), GRW-6 (885-11759-6) and GRW-5 (885-11759-7). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-2

Lab Sample ID: 885-11759-1

Date Collected: 09/12/24 11:10

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	*+	2.0	ug/L			09/20/24 02:03	2	
Naphthalene	ND		4.0	ug/L			09/20/24 02:03	2	
1-Methylnaphthalene	ND		8.0	ug/L			09/20/24 02:03	2	
2-Methylnaphthalene	ND		8.0	ug/L			09/20/24 02:03	2	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				09/20/24 02:03	2	
Toluene-d8 (Surr)	98		70 - 130				09/20/24 02:03	2	
4-Bromofluorobenzene (Surr)	95		70 - 130				09/20/24 02:03	2	
Dibromofluoromethane (Surr)	103		70 - 130				09/20/24 02:03	2	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:39	1	
Manganese	5.9		0.10	mg/L		09/18/24 21:49	09/20/24 18:14	50	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-1

Lab Sample ID: 885-11759-2

Date Collected: 09/12/24 09:25

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	*+	1.0	ug/L			09/20/24 02:28	1	
Naphthalene	ND		2.0	ug/L			09/20/24 02:28	1	
1-Methylnaphthalene	ND		4.0	ug/L			09/20/24 02:28	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/20/24 02:28	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				09/20/24 02:28	1	
Toluene-d8 (Surr)	99		70 - 130				09/20/24 02:28	1	
4-Bromofluorobenzene (Surr)	99		70 - 130				09/20/24 02:28	1	
Dibromofluoromethane (Surr)	104		70 - 130				09/20/24 02:28	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:41	1	
Manganese	0.13		0.0020	mg/L		09/18/24 21:49	09/19/24 21:41	1	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-10

Lab Sample ID: 885-11759-3

Date Collected: 09/12/24 14:00

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	*+	1.0	ug/L			09/20/24 02:52	1
Naphthalene	ND		2.0	ug/L			09/20/24 02:52	1
1-Methylnaphthalene	ND		4.0	ug/L			09/20/24 02:52	1
2-Methylnaphthalene	ND		4.0	ug/L			09/20/24 02:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		09/20/24 02:52	1
Toluene-d8 (Surr)	99		70 - 130		09/20/24 02:52	1
4-Bromofluorobenzene (Surr)	97		70 - 130		09/20/24 02:52	1
Dibromofluoromethane (Surr)	104		70 - 130		09/20/24 02:52	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:50	1
Manganese	0.96		0.0020	mg/L		09/18/24 21:49	09/19/24 21:50	1

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-4

Lab Sample ID: 885-11759-4

Date Collected: 09/12/24 13:00

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	*+	5.0	ug/L			09/20/24 03:41	5
Naphthalene	ND		10	ug/L			09/20/24 03:41	5
1-Methylnaphthalene	ND		20	ug/L			09/20/24 03:41	5
2-Methylnaphthalene	ND		20	ug/L			09/20/24 03:41	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		09/20/24 03:41	5
Toluene-d8 (Surr)	98		70 - 130		09/20/24 03:41	5
4-Bromofluorobenzene (Surr)	96		70 - 130		09/20/24 03:41	5
Dibromofluoromethane (Surr)	103		70 - 130		09/20/24 03:41	5

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:43	1
Manganese	1.5		0.040	mg/L		09/18/24 21:49	09/20/24 18:16	20

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Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GBR-13

Lab Sample ID: 885-11759-5

Date Collected: 09/12/24 15:25

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	*+	1.0	ug/L			09/20/24 04:06	1	
Naphthalene	ND		2.0	ug/L			09/20/24 04:06	1	
1-Methylnaphthalene	ND		4.0	ug/L			09/20/24 04:06	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/20/24 04:06	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				09/20/24 04:06	1	
Toluene-d8 (Surr)	100		70 - 130				09/20/24 04:06	1	
4-Bromofluorobenzene (Surr)	102		70 - 130				09/20/24 04:06	1	
Dibromofluoromethane (Surr)	106		70 - 130				09/20/24 04:06	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:56	1	
Manganese	4.5		0.10	mg/L		09/18/24 21:49	09/20/24 18:18	50	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-6

Lab Sample ID: 885-11759-6

Date Collected: 09/12/24 14:10

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	*+	1.0	ug/L			09/20/24 04:30	1	
Naphthalene	ND		2.0	ug/L			09/20/24 04:30	1	
1-Methylnaphthalene	ND		4.0	ug/L			09/20/24 04:30	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/20/24 04:30	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				09/20/24 04:30	1	
Toluene-d8 (Surr)	99		70 - 130				09/20/24 04:30	1	
4-Bromofluorobenzene (Surr)	99		70 - 130				09/20/24 04:30	1	
Dibromofluoromethane (Surr)	102		70 - 130				09/20/24 04:30	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:58	1	
Manganese	2.7		0.040	mg/L		09/18/24 21:49	09/20/24 18:20	20	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-5

Lab Sample ID: 885-11759-7

Date Collected: 09/12/24 13:25

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	*+	2.0	ug/L			09/20/24 04:54	2	
Naphthalene	ND		4.0	ug/L			09/20/24 04:54	2	
1-Methylnaphthalene	ND		8.0	ug/L			09/20/24 04:54	2	
2-Methylnaphthalene	ND		8.0	ug/L			09/20/24 04:54	2	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				09/20/24 04:54	2	
Toluene-d8 (Surr)	99		70 - 130				09/20/24 04:54	2	
4-Bromofluorobenzene (Surr)	98		70 - 130				09/20/24 04:54	2	
Dibromofluoromethane (Surr)	102		70 - 130				09/20/24 04:54	2	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 22:01	1	
Manganese	4.4		0.10	mg/L		09/18/24 21:49	09/20/24 18:22	50	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GBR-53

Lab Sample ID: 885-11759-8

Date Collected: 09/12/24 12:35

Matrix: Water

Date Received: 09/13/24 07:15

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	*+	1.0	ug/L			09/20/24 05:19	1
Naphthalene	ND		2.0	ug/L			09/20/24 05:19	1
1-Methylnaphthalene	ND		4.0	ug/L			09/20/24 05:19	1
2-Methylnaphthalene	ND		4.0	ug/L			09/20/24 05:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		09/20/24 05:19	1
Toluene-d8 (Surr)	98		70 - 130		09/20/24 05:19	1
4-Bromofluorobenzene (Surr)	98		70 - 130		09/20/24 05:19	1
Dibromofluoromethane (Surr)	103		70 - 130		09/20/24 05:19	1

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 22:03	1
Manganese	0.45		0.0020	mg/L		09/18/24 21:49	09/19/24 22:03	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

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

Lab Sample ID: MB 885-12450/5

Matrix: Water

Analysis Batch: 12450

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			09/19/24 13:27	1
Naphthalene	ND		2.0	ug/L			09/19/24 13:27	1
1-Methylnaphthalene	ND		4.0	ug/L			09/19/24 13:27	1
2-Methylnaphthalene	ND		4.0	ug/L			09/19/24 13:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		09/19/24 13:27	1
Toluene-d8 (Surr)	104		70 - 130		09/19/24 13:27	1
4-Bromofluorobenzene (Surr)	98		70 - 130		09/19/24 13:27	1
Dibromofluoromethane (Surr)	101		70 - 130		09/19/24 13:27	1

Lab Sample ID: STOBLK 885-12450/81

Matrix: Water

Analysis Batch: 12450

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	STOBLK Result	STOBLK Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			09/20/24 05:43	1
Naphthalene	ND		2.0	ug/L			09/20/24 05:43	1
1-Methylnaphthalene	ND		4.0	ug/L			09/20/24 05:43	1
2-Methylnaphthalene	ND		4.0	ug/L			09/20/24 05:43	1

Surrogate	STOBLK %Recovery	STOBLK Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		09/20/24 05:43	1
Toluene-d8 (Surr)	99		70 - 130		09/20/24 05:43	1
4-Bromofluorobenzene (Surr)	98		70 - 130		09/20/24 05:43	1
Dibromofluoromethane (Surr)	103		70 - 130		09/20/24 05:43	1

Lab Sample ID: LCS 885-12450/4

Matrix: Water

Analysis Batch: 12450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	26.4	*+	ug/L		131	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 860-188121/2-A

Matrix: Water

Analysis Batch: 188585

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 188121

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:04	1

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QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-188121/2-A

Matrix: Water

Analysis Batch: 188585

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 188121

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0020	mg/L		09/18/24 21:49	09/19/24 21:04	1

Lab Sample ID: LCS 860-188121/3-A

Matrix: Water

Analysis Batch: 188585

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 188121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.100	0.100		mg/L		100	85 - 115
Manganese	0.100	0.100		mg/L		100	85 - 115

Lab Sample ID: LCSD 860-188121/4-A

Matrix: Water

Analysis Batch: 188585

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 188121

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.100	0.0985		mg/L		98	85 - 115	2	20
Manganese	0.100	0.0988		mg/L		99	85 - 115	2	20

Lab Sample ID: LLCS 860-188121/1-A

Matrix: Water

Analysis Batch: 188585

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 188121

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.00200	0.00192	J	mg/L		96	50 - 150
Manganese	0.00200	0.00204		mg/L		102	50 - 150

Lab Sample ID: 885-11759-3 MS

Matrix: Water

Analysis Batch: 188585

Client Sample ID: GRW-10

Prep Type: Dissolved

Prep Batch: 188121

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		0.100	0.103		mg/L		102	70 - 130
Manganese	0.96		0.100	1.09	4	mg/L		131	70 - 130

Lab Sample ID: 885-11759-3 MSD

Matrix: Water

Analysis Batch: 188585

Client Sample ID: GRW-10

Prep Type: Dissolved

Prep Batch: 188121

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		0.100	0.101		mg/L		101	70 - 130	1	20
Manganese	0.96		0.100	1.08	4	mg/L		118	70 - 130	1	20

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QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

GC/MS VOA

Analysis Batch: 12450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11759-1	GRW-2	Total/NA	Water	8260B	
885-11759-2	GRW-1	Total/NA	Water	8260B	
885-11759-3	GRW-10	Total/NA	Water	8260B	
885-11759-4	GRW-4	Total/NA	Water	8260B	
885-11759-5	GBR-13	Total/NA	Water	8260B	
885-11759-6	GRW-6	Total/NA	Water	8260B	
885-11759-7	GRW-5	Total/NA	Water	8260B	
885-11759-8	GBR-53	Total/NA	Water	8260B	
MB 885-12450/5	Method Blank	Total/NA	Water	8260B	
STOBLK 885-12450/81	Method Blank	Total/NA	Water	8260B	
LCS 885-12450/4	Lab Control Sample	Total/NA	Water	8260B	

Metals

Prep Batch: 188121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11759-1	GRW-2	Dissolved	Water	200.8	
885-11759-2	GRW-1	Dissolved	Water	200.8	
885-11759-3	GRW-10	Dissolved	Water	200.8	
885-11759-4	GRW-4	Dissolved	Water	200.8	
885-11759-5	GBR-13	Dissolved	Water	200.8	
885-11759-6	GRW-6	Dissolved	Water	200.8	
885-11759-7	GRW-5	Dissolved	Water	200.8	
885-11759-8	GBR-53	Dissolved	Water	200.8	
MB 860-188121/2-A	Method Blank	Total Recoverable	Water	200.8	
LCS 860-188121/3-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 860-188121/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
LLCS 860-188121/1-A	Lab Control Sample	Total Recoverable	Water	200.8	
885-11759-3 MS	GRW-10	Dissolved	Water	200.8	
885-11759-3 MSD	GRW-10	Dissolved	Water	200.8	

Analysis Batch: 188585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11759-1	GRW-2	Dissolved	Water	200.8	188121
885-11759-2	GRW-1	Dissolved	Water	200.8	188121
885-11759-3	GRW-10	Dissolved	Water	200.8	188121
885-11759-4	GRW-4	Dissolved	Water	200.8	188121
885-11759-5	GBR-13	Dissolved	Water	200.8	188121
885-11759-6	GRW-6	Dissolved	Water	200.8	188121
885-11759-7	GRW-5	Dissolved	Water	200.8	188121
885-11759-8	GBR-53	Dissolved	Water	200.8	188121
MB 860-188121/2-A	Method Blank	Total Recoverable	Water	200.8	188121
LCS 860-188121/3-A	Lab Control Sample	Total Recoverable	Water	200.8	188121
LCSD 860-188121/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	188121
LLCS 860-188121/1-A	Lab Control Sample	Total Recoverable	Water	200.8	188121
885-11759-3 MS	GRW-10	Dissolved	Water	200.8	188121
885-11759-3 MSD	GRW-10	Dissolved	Water	200.8	188121

Analysis Batch: 188691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11759-1	GRW-2	Dissolved	Water	200.8	188121

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QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Metals (Continued)

Analysis Batch: 188691 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-11759-4	GRW-4	Dissolved	Water	200.8	188121
885-11759-5	GBR-13	Dissolved	Water	200.8	188121
885-11759-6	GRW-6	Dissolved	Water	200.8	188121
885-11759-7	GRW-5	Dissolved	Water	200.8	188121

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-2**Date Collected: 09/12/24 11:10****Date Received: 09/13/24 07:15****Lab Sample ID: 885-11759-1****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	12450	CM	EET ALB	09/20/24 02:03
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 21:39
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		50	188691	SHZ	EET HOU	09/20/24 18:14

Client Sample ID: GRW-1**Date Collected: 09/12/24 09:25****Date Received: 09/13/24 07:15****Lab Sample ID: 885-11759-2****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12450	CM	EET ALB	09/20/24 02:28
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 21:41

Client Sample ID: GRW-10**Date Collected: 09/12/24 14:00****Date Received: 09/13/24 07:15****Lab Sample ID: 885-11759-3****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12450	CM	EET ALB	09/20/24 02:52
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 21:50

Client Sample ID: GRW-4**Date Collected: 09/12/24 13:00****Date Received: 09/13/24 07:15****Lab Sample ID: 885-11759-4****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		5	12450	CM	EET ALB	09/20/24 03:41
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 21:43
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		20	188691	SHZ	EET HOU	09/20/24 18:16

Client Sample ID: GBR-13**Date Collected: 09/12/24 15:25****Date Received: 09/13/24 07:15****Lab Sample ID: 885-11759-5****Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12450	CM	EET ALB	09/20/24 04:06
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 21:56
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		50	188691	SHZ	EET HOU	09/20/24 18:18

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Client Sample ID: GRW-6
Date Collected: 09/12/24 14:10
Date Received: 09/13/24 07:15

Lab Sample ID: 885-11759-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12450	CM	EET ALB	09/20/24 04:30
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 21:58
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		20	188691	SHZ	EET HOU	09/20/24 18:20

Client Sample ID: GRW-5
Date Collected: 09/12/24 13:25
Date Received: 09/13/24 07:15

Lab Sample ID: 885-11759-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	12450	CM	EET ALB	09/20/24 04:54
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 22:01
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		50	188691	SHZ	EET HOU	09/20/24 18:22

Client Sample ID: GBR-53
Date Collected: 09/12/24 12:35
Date Received: 09/13/24 07:15

Lab Sample ID: 885-11759-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	12450	CM	EET ALB	09/20/24 05:19
Dissolved	Prep	200.8			188121	SHZ	EET HOU	09/18/24 21:49
Dissolved	Analysis	200.8		1	188585	DP	EET HOU	09/19/24 22:03

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-11759-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-25
Florida	NELAP	E871002	06-30-25
Louisiana (All)	NELAP	03054	06-30-25
Texas	NELAP	T104704215	06-30-25
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-11759-1

Login Number: 11759
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-11759-1

Login Number: 11759

List Number: 2

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 09/17/24 02:07 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 10/1/2024 10:48:44 PM

JOB DESCRIPTION

GBR

JOB NUMBER

885-12207-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-12207-1

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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
P2	The sample was received with pH>2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-12207-1

Job ID: 885-12207-1Eurofins Albuquerque

Job Narrative
885-12207-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/20/2024 7:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Client Sample ID: GBR-11
Date Collected: 09/18/24 09:40
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12207-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	1.1	P2	1.0	ug/L			09/29/24 04:19	1	
Naphthalene	ND	P2	2.0	ug/L			09/29/24 04:19	1	
1-Methylnaphthalene	ND	P2	4.0	ug/L			09/29/24 04:19	1	
2-Methylnaphthalene	ND	P2	4.0	ug/L			09/29/24 04:19	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	92	P2	70 - 130				09/29/24 04:19	1	
Toluene-d8 (Surr)	106	P2	70 - 130				09/29/24 04:19	1	
4-Bromofluorobenzene (Surr)	102	P2	70 - 130				09/29/24 04:19	1	
Dibromofluoromethane (Surr)	89	P2	70 - 130				09/29/24 04:19	1	

Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	0.016		0.0025	mg/L			09/23/24 13:05	5	
Manganese	1.7		0.050	mg/L			09/23/24 13:11	50	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Client Sample ID: GBR-54
Date Collected: 09/18/24 12:35
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12207-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			09/29/24 04:47	1	
Naphthalene	ND		2.0	ug/L			09/29/24 04:47	1	
1-Methylnaphthalene	ND		4.0	ug/L			09/29/24 04:47	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/29/24 04:47	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				09/29/24 04:47	1	
Toluene-d8 (Surr)	105		70 - 130				09/29/24 04:47	1	
4-Bromofluorobenzene (Surr)	102		70 - 130				09/29/24 04:47	1	
Dibromofluoromethane (Surr)	89		70 - 130				09/29/24 04:47	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	0.071		0.0025	mg/L			09/23/24 12:09	5	
Manganese	6.3		0.20	mg/L			09/23/24 13:13	200	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Client Sample ID: GBR-52
Date Collected: 09/18/24 11:00
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12207-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			09/29/24 05:15	1	
Naphthalene	ND		2.0	ug/L			09/29/24 05:15	1	
1-Methylnaphthalene	ND		4.0	ug/L			09/29/24 05:15	1	
2-Methylnaphthalene	ND		4.0	ug/L			09/29/24 05:15	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				09/29/24 05:15	1	
Toluene-d8 (Surr)	106		70 - 130				09/29/24 05:15	1	
4-Bromofluorobenzene (Surr)	101		70 - 130				09/29/24 05:15	1	
Dibromofluoromethane (Surr)	87		70 - 130				09/29/24 05:15	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	0.0011		0.00050	mg/L			09/23/24 12:12	1	
Manganese	0.064		0.0050	mg/L			09/23/24 13:16	5	

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

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

Lab Sample ID: MB 885-13240/4

Matrix: Water

Analysis Batch: 13240

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			09/28/24 22:12	1
Naphthalene	ND		2.0	ug/L			09/28/24 22:12	1
1-Methylnaphthalene	ND		4.0	ug/L			09/28/24 22:12	1
2-Methylnaphthalene	ND		4.0	ug/L			09/28/24 22:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		09/28/24 22:12	1
Toluene-d8 (Surr)	104		70 - 130		09/28/24 22:12	1
4-Bromofluorobenzene (Surr)	105		70 - 130		09/28/24 22:12	1
Dibromofluoromethane (Surr)	88		70 - 130		09/28/24 22:12	1

Lab Sample ID: LCS 885-13240/3

Matrix: Water

Analysis Batch: 13240

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.1	19.0		ug/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
Toluene-d8 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	88		70 - 130

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-12784/55

Matrix: Water

Analysis Batch: 12784

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00050	mg/L			09/23/24 11:43	1
Manganese	ND		0.0010	mg/L			09/23/24 11:43	1

Lab Sample ID: LCS 885-12784/56

Matrix: Water

Analysis Batch: 12784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0125	0.0126		mg/L		101	85 - 115
Manganese	0.0250	0.0237		mg/L		95	85 - 115

Lab Sample ID: MRL 885-12784/9

Matrix: Water

Analysis Batch: 12784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.000500	0.000517		mg/L		103	50 - 150
Manganese	0.00100	0.00122		mg/L		122	50 - 150

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: 885-12207-1 MS					Client Sample ID: GBR-11				
Matrix: Water					Prep Type: Dissolved				
Analysis Batch: 12784									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.016		0.0625	0.0802		mg/L		103	70 - 130

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

GC/MS VOA

Analysis Batch: 13240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12207-1	GBR-11	Total/NA	Water	8260B	
885-12207-2	GBR-54	Total/NA	Water	8260B	
885-12207-3	GBR-52	Total/NA	Water	8260B	
MB 885-13240/4	Method Blank	Total/NA	Water	8260B	
LCS 885-13240/3	Lab Control Sample	Total/NA	Water	8260B	

Metals

Analysis Batch: 12784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12207-1	GBR-11	Dissolved	Water	200.8	
885-12207-1	GBR-11	Dissolved	Water	200.8	
885-12207-2	GBR-54	Dissolved	Water	200.8	
885-12207-2	GBR-54	Dissolved	Water	200.8	
885-12207-3	GBR-52	Dissolved	Water	200.8	
885-12207-3	GBR-52	Dissolved	Water	200.8	
MB 885-12784/55	Method Blank	Total/NA	Water	200.8	
LCS 885-12784/56	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-12784/9	Lab Control Sample	Total/NA	Water	200.8	
885-12207-1 MS	GBR-11	Dissolved	Water	200.8	

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Client Sample ID: GBR-11
Date Collected: 09/18/24 09:40
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12207-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13240	RA	EET ALB	09/29/24 04:19
Dissolved	Analysis	200.8		5	12784	ES	EET ALB	09/23/24 13:05
Dissolved	Analysis	200.8		50	12784	ES	EET ALB	09/23/24 13:11

Client Sample ID: GBR-54
Date Collected: 09/18/24 12:35
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12207-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13240	RA	EET ALB	09/29/24 04:47
Dissolved	Analysis	200.8		5	12784	ES	EET ALB	09/23/24 12:09
Dissolved	Analysis	200.8		200	12784	ES	EET ALB	09/23/24 13:13

Client Sample ID: GBR-52
Date Collected: 09/18/24 11:00
Date Received: 09/20/24 07:15

Lab Sample ID: 885-12207-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13240	RA	EET ALB	09/29/24 05:15
Dissolved	Analysis	200.8		1	12784	ES	EET ALB	09/23/24 12:12
Dissolved	Analysis	200.8		5	12784	ES	EET ALB	09/23/24 13:16

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-12207-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

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[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-12207-1

Login Number: 12207
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Stuart Hyde

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

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JOB DESCRIPTION

GBR

JOB NUMBER

885-12295-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
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Client: Ensolum
Project/Site: GBR

Laboratory Job ID: 885-12295-1



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Definitions/Glossary

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: GBR

Job ID: 885-12295-1

Job ID: 885-12295-1Eurofins Albuquerque

Job Narrative
885-12295-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/21/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Client Sample ID: GBR-18
Date Collected: 09/20/24 13:30
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			10/03/24 01:42	1	
Naphthalene	ND		2.0	ug/L			10/03/24 01:42	1	
1-Methylnaphthalene	ND		4.0	ug/L			10/03/24 01:42	1	
2-Methylnaphthalene	ND		4.0	ug/L			10/03/24 01:42	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				10/03/24 01:42	1	
Toluene-d8 (Surr)	97		70 - 130				10/03/24 01:42	1	
4-Bromofluorobenzene (Surr)	94		70 - 130				10/03/24 01:42	1	
Dibromofluoromethane (Surr)	105		70 - 130				10/03/24 01:42	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	0.0010		0.00050	mg/L			09/23/24 12:46	1	
Manganese	0.016		0.0010	mg/L			09/23/24 12:46	1	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Client Sample ID: GBR-57
Date Collected: 09/20/24 09:05
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			10/02/24 22:51		1
Naphthalene	ND		2.0	ug/L			10/02/24 22:51		1
1-Methylnaphthalene	ND		4.0	ug/L			10/02/24 22:51		1
2-Methylnaphthalene	ND		4.0	ug/L			10/02/24 22:51		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				10/02/24 22:51		1
Toluene-d8 (Surr)	96		70 - 130				10/02/24 22:51		1
4-Bromofluorobenzene (Surr)	94		70 - 130				10/02/24 22:51		1
Dibromofluoromethane (Surr)	104		70 - 130				10/02/24 22:51		1
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	0.0011		0.00050	mg/L			09/23/24 12:49		1
Manganese	0.80		0.020	mg/L			09/23/24 13:19		20

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Client Sample ID: GBR-56
Date Collected: 09/20/24 12:00
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			10/03/24 02:55	1	
Naphthalene	ND		2.0	ug/L			10/03/24 02:55	1	
1-Methylnaphthalene	ND		4.0	ug/L			10/03/24 02:55	1	
2-Methylnaphthalene	ND		4.0	ug/L			10/03/24 02:55	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130				10/03/24 02:55	1	
Toluene-d8 (Surr)	95		70 - 130				10/03/24 02:55	1	
4-Bromofluorobenzene (Surr)	94		70 - 130				10/03/24 02:55	1	
Dibromofluoromethane (Surr)	102		70 - 130				10/03/24 02:55	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			09/23/24 13:00	1	
Manganese	0.19		0.0050	mg/L			09/23/24 13:21	5	

Client Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Client Sample ID: GBR-58

Lab Sample ID: 885-12295-4

Date Collected: 09/20/24 09:45

Matrix: Water

Date Received: 09/21/24 07:55

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	ug/L			10/03/24 03:19	1	
Naphthalene	ND		2.0	ug/L			10/03/24 03:19	1	
1-Methylnaphthalene	ND		4.0	ug/L			10/03/24 03:19	1	
2-Methylnaphthalene	ND		4.0	ug/L			10/03/24 03:19	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				10/03/24 03:19	1	
Toluene-d8 (Surr)	95		70 - 130				10/03/24 03:19	1	
4-Bromofluorobenzene (Surr)	93		70 - 130				10/03/24 03:19	1	
Dibromofluoromethane (Surr)	105		70 - 130				10/03/24 03:19	1	
Method: EPA 200.8 - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			09/23/24 13:03	1	
Manganese	0.36		0.010	mg/L			09/23/24 13:24	10	

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

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

Lab Sample ID: MB 885-13499/1005

Matrix: Water

Analysis Batch: 13499

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			10/02/24 13:30	1
Naphthalene	ND		2.0	ug/L			10/02/24 13:30	1
1-Methylnaphthalene	ND		4.0	ug/L			10/02/24 13:30	1
2-Methylnaphthalene	ND		4.0	ug/L			10/02/24 13:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		10/02/24 13:30	1
Toluene-d8 (Surr)	97		70 - 130		10/02/24 13:30	1
4-Bromofluorobenzene (Surr)	93		70 - 130		10/02/24 13:30	1
Dibromofluoromethane (Surr)	101		70 - 130		10/02/24 13:30	1

Lab Sample ID: MB 885-13499/33

Matrix: Water

Analysis Batch: 13499

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			10/03/24 01:17	1
Naphthalene	ND		2.0	ug/L			10/03/24 01:17	1
1-Methylnaphthalene	ND		4.0	ug/L			10/03/24 01:17	1
2-Methylnaphthalene	ND		4.0	ug/L			10/03/24 01:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/03/24 01:17	1
Toluene-d8 (Surr)	95		70 - 130		10/03/24 01:17	1
4-Bromofluorobenzene (Surr)	92		70 - 130		10/03/24 01:17	1
Dibromofluoromethane (Surr)	102		70 - 130		10/03/24 01:17	1

Lab Sample ID: MB 885-13499/5

Matrix: Water

Analysis Batch: 13499

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	ug/L			10/02/24 13:30	1
Naphthalene	ND		2.0	ug/L			10/02/24 13:30	1
1-Methylnaphthalene	ND		4.0	ug/L			10/02/24 13:30	1
2-Methylnaphthalene	ND		4.0	ug/L			10/02/24 13:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		10/02/24 13:30	1
Toluene-d8 (Surr)	97		70 - 130		10/02/24 13:30	1
4-Bromofluorobenzene (Surr)	93		70 - 130		10/02/24 13:30	1
Dibromofluoromethane (Surr)	101		70 - 130		10/02/24 13:30	1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

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

Lab Sample ID: LCS 885-13499/32

Matrix: Water

Analysis Batch: 13499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			20.1	23.3		ug/L		116	70 - 130		
		LCS	LCS								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		97		70 - 130							
Toluene-d8 (Surr)		96		70 - 130							
4-Bromofluorobenzene (Surr)		94		70 - 130							
Dibromofluoromethane (Surr)		103		70 - 130							

Lab Sample ID: LCS 885-13499/4

Matrix: Water

Analysis Batch: 13499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			20.1	23.0		ug/L		114	70 - 130		
		LCS	LCS								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		95		70 - 130							
Toluene-d8 (Surr)		98		70 - 130							
4-Bromofluorobenzene (Surr)		95		70 - 130							
Dibromofluoromethane (Surr)		97		70 - 130							

Lab Sample ID: 885-12295-1 MS

Matrix: Water

Analysis Batch: 13499

Client Sample ID: GBR-18

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		20.1	23.6		ug/L		118	70 - 130		
		MS	MS								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		97		70 - 130							
Toluene-d8 (Surr)		97		70 - 130							
4-Bromofluorobenzene (Surr)		95		70 - 130							
Dibromofluoromethane (Surr)		102		70 - 130							

Lab Sample ID: 885-12295-1 MSD

Matrix: Water

Analysis Batch: 13499

Client Sample ID: GBR-18

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		20.1	22.7		ug/L		113	70 - 130	4	20
		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		99		70 - 130							
Toluene-d8 (Surr)		98		70 - 130							
4-Bromofluorobenzene (Surr)		95		70 - 130							
Dibromofluoromethane (Surr)		103		70 - 130							

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 885-12784/55					Client Sample ID: Method Blank				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 12784									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Lead	ND		0.00050	mg/L			09/23/24 11:43	1	
Manganese	ND		0.0010	mg/L			09/23/24 11:43	1	

Lab Sample ID: LCS 885-12784/56						Client Sample ID: Lab Control Sample				
Matrix: Water						Prep Type: Total/NA				
Analysis Batch: 12784										
Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec	
			Added	Result	Qualifier				Limits	
Lead			0.0125	0.0126		mg/L		101	85 - 115	
Manganese			0.0250	0.0237		mg/L		95	85 - 115	

Lab Sample ID: MRL 885-12784/9						Client Sample ID: Lab Control Sample				
Matrix: Water						Prep Type: Total/NA				
Analysis Batch: 12784										
Analyte			Spike	MRL	MRL	Unit	D	%Rec	%Rec	
			Added	Result	Qualifier				Limits	
Lead			0.000500	0.000517		mg/L		103	50 - 150	
Manganese			0.00100	0.00122		mg/L		122	50 - 150	

QC Association Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

GC/MS VOA

Analysis Batch: 13499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12295-1	GBR-18	Total/NA	Water	8260B	
885-12295-2	GBR-57	Total/NA	Water	8260B	
885-12295-3	GBR-56	Total/NA	Water	8260B	
885-12295-4	GBR-58	Total/NA	Water	8260B	
MB 885-13499/1005	Method Blank	Total/NA	Water	8260B	
MB 885-13499/33	Method Blank	Total/NA	Water	8260B	
MB 885-13499/5	Method Blank	Total/NA	Water	8260B	
LCS 885-13499/32	Lab Control Sample	Total/NA	Water	8260B	
LCS 885-13499/4	Lab Control Sample	Total/NA	Water	8260B	
885-12295-1 MS	GBR-18	Total/NA	Water	8260B	
885-12295-1 MSD	GBR-18	Total/NA	Water	8260B	

Metals

Analysis Batch: 12784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-12295-1	GBR-18	Dissolved	Water	200.8	
885-12295-2	GBR-57	Dissolved	Water	200.8	
885-12295-2	GBR-57	Dissolved	Water	200.8	
885-12295-3	GBR-56	Dissolved	Water	200.8	
885-12295-3	GBR-56	Dissolved	Water	200.8	
885-12295-4	GBR-58	Dissolved	Water	200.8	
885-12295-4	GBR-58	Dissolved	Water	200.8	
MB 885-12784/55	Method Blank	Total/NA	Water	200.8	
LCS 885-12784/56	Lab Control Sample	Total/NA	Water	200.8	
MRL 885-12784/9	Lab Control Sample	Total/NA	Water	200.8	

Lab Chronicle

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Client Sample ID: GBR-18
Date Collected: 09/20/24 13:30
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13499	CM	EET ALB	10/03/24 01:42
Dissolved	Analysis	200.8		1	12784	ES	EET ALB	09/23/24 12:46

Client Sample ID: GBR-57
Date Collected: 09/20/24 09:05
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13499	CM	EET ALB	10/02/24 22:51
Dissolved	Analysis	200.8		1	12784	ES	EET ALB	09/23/24 12:49
Dissolved	Analysis	200.8		20	12784	ES	EET ALB	09/23/24 13:19

Client Sample ID: GBR-56
Date Collected: 09/20/24 12:00
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13499	CM	EET ALB	10/03/24 02:55
Dissolved	Analysis	200.8		1	12784	ES	EET ALB	09/23/24 13:00
Dissolved	Analysis	200.8		5	12784	ES	EET ALB	09/23/24 13:21

Client Sample ID: GBR-58
Date Collected: 09/20/24 09:45
Date Received: 09/21/24 07:55

Lab Sample ID: 885-12295-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	13499	CM	EET ALB	10/03/24 03:19
Dissolved	Analysis	200.8		1	12784	ES	EET ALB	09/23/24 13:03
Dissolved	Analysis	200.8		10	12784	ES	EET ALB	09/23/24 13:24

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Ensolum
Project/Site: GBR

Job ID: 885-12295-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

If necessary, samples submitted to Hall Environmental may be subcontracted to other/accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-12295-1

Login Number: 12295
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

17 December 2024

Wes Weichert
Ensolum, LLC
848 E 2nd Ave
Durango, CO 81301
RE: 07A2015003- Giant Bloomfield Refinery

Enclosed are the results of analyses for samples received by the laboratory on 12/05/24 16:12. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GBR-18	2412063-01	Water	12/05/24 14:15	12/05/24 16:12	
GBR-20	2412063-02	Water	12/05/24 13:50	12/05/24 16:12	
GBR-11	2412063-03	Water	12/05/24 13:20	12/05/24 16:12	
GBR-7	2412063-04	Water	12/05/24 12:55	12/05/24 16:12	
GBR-35	2412063-05	Water	12/05/24 14:55	12/05/24 16:12	

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A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

GBR-18

2412063-01 (Water)

Sampled Date: 12/05/24 14:15

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 16:57	EPA 200.8	IS1	AES
Manganese*	0.0280	0.0010	0.0004	mg/L	2	12/11/24 13:33	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 17:26	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			95.0 %	76.4-114		12/11/24 17:26	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		12/11/24 17:26	8260B		SK
<i>Surrogate: Toluene-d8</i>			102 %	87.1-110		12/11/24 17:26	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	1	12/12/24 19:22	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	1	12/12/24 19:22	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	1	12/12/24 19:22	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			36.8 %	7.39-192		12/12/24 19:22	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			39.9 %	5.17-184		12/12/24 19:22	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			43.3 %	27.5-139		12/12/24 19:22	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

GBR-20

2412063-02 (Water)

Sampled Date: 12/05/24 13:50

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0100	0.0100	0.0024	mg/L	20	12/17/24 11:12	EPA 200.8	IS1	AES
Manganese*	0.282	0.0010	0.0004	mg/L	2	12/11/24 13:38	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	0.003	0.0005	0.00005	mg/L	1	12/11/24 17:47	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			104 %	76.4-114		12/11/24 17:47	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			103 %	82.4-141		12/11/24 17:47	8260B		SK
<i>Surrogate: Toluene-d8</i>			98.4 %	87.1-110		12/11/24 17:47	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/12/24 19:53	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 19:53	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 19:53	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			25.4 %	7.39-192		12/12/24 19:53	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			30.2 %	5.17-184		12/12/24 19:53	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			36.5 %	27.5-139		12/12/24 19:53	8270C		SK

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Project Manager: Wes Weichert

Reported:
12/17/24 15:01

GBR-11

2412063-03 (Water)

Sampled Date: 12/05/24 13:20

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/17/24 11:13	EPA 200.8	IS1	AES
Manganese*	2.65	0.0010	0.0004	mg/L	2	12/11/24 13:39	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	0.002	0.0005	0.00005	mg/L	1	12/11/24 18:08	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			98.2 %	76.4-114		12/11/24 18:08	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			106 %	82.4-141		12/11/24 18:08	8260B		SK
<i>Surrogate: Toluene-d8</i>			99.2 %	87.1-110		12/11/24 18:08	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/12/24 20:23	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 20:23	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 20:23	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			49.2 %	7.39-192		12/12/24 20:23	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			51.5 %	5.17-184		12/12/24 20:23	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			48.0 %	27.5-139		12/12/24 20:23	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

GBR-7

2412063-04 (Water)

Sampled Date: 12/05/24 12:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	0.0136	0.0050	0.0012	mg/L	10	12/17/24 11:18	EPA 200.8		AES
Manganese*	1.89	0.0010	0.0004	mg/L	2	12/11/24 13:41	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 18:29	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			127 %	76.4-114		12/11/24 18:29	8260B	S-04	SK
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		12/11/24 18:29	8260B		SK
<i>Surrogate: Toluene-d8</i>			97.4 %	87.1-110		12/11/24 18:29	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/13/24 02:41	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/13/24 02:41	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/13/24 02:41	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			35.5 %	7.39-192		12/13/24 02:41	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			16.9 %	5.17-184		12/13/24 02:41	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			39.4 %	27.5-139		12/13/24 02:41	8270C		SK

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Project Manager: Wes Weichert

Reported:
12/17/24 15:01

GBR-35

2412063-05 (Water)

Sampled Date: 12/05/24 14:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/17/24 11:20	EPA 200.8	IS1	AES
Manganese*	6.43	0.0050	0.0018	mg/L	10	12/17/24 11:20	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	0.001	0.0005	0.00005	mg/L	1	12/11/24 18:50	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			103 %	76.4-114		12/11/24 18:50	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			105 %	82.4-141		12/11/24 18:50	8260B		SK
<i>Surrogate: Toluene-d8</i>			101 %	87.1-110		12/11/24 18:50	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	0.039	0.0005	0.0002	mg/L	0.95	12/13/24 01:40	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/13/24 01:40	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/13/24 01:40	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			39.6 %	7.39-192		12/13/24 01:40	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			63.2 %	5.17-184		12/13/24 01:40	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			51.3 %	27.5-139		12/13/24 01:40	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B243629 - Dissolved ICPMS

Blank (B243629-BLK1)

Prepared: 12/11/24 Analyzed: 12/13/24

Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							

LCS (B243629-BS1)

Prepared: 12/11/24 Analyzed: 12/13/24

Lead	0.0496	0.0005	mg/L	0.0500		99.1	85-115			
Manganese	0.0511	0.0005	mg/L	0.0500		102	85-115			

LCS Dup (B243629-BSD1)

Prepared: 12/11/24 Analyzed: 12/13/24

Lead	0.0495	0.0005	mg/L	0.0500		99.1	85-115	0.0209	20	
Manganese	0.0512	0.0005	mg/L	0.0500		102	85-115	0.216	20	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121115 - Volatiles

Blank (4121115-BLK1)

Prepared & Analyzed: 12/11/24

Surrogate: 4-Bromofluorobenzene	0.0237		mg/L	0.0250		94.9	76.4-114			
Benzene	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.0257		mg/L	0.0250		103	82.4-141			
Ethylbenzene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
Surrogate: Toluene-d8	0.0252		mg/L	0.0250		101	87.1-110			
Total BTEX	ND	0.003	mg/L							
Total Xylenes	ND	0.001	mg/L							

LCS (4121115-BS1)

Prepared & Analyzed: 12/11/24

Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		101	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200		100	85.9-114			
Surrogate: Dibromofluoromethane	0.0251		mg/L	0.0250		100	82.4-141			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.0	81.8-127			
m+p - Xylene	0.040	0.001	mg/L	0.0400		101	72.4-134			
o-Xylene	0.019	0.0005	mg/L	0.0200		95.7	76.2-135			
Toluene	0.019	0.0005	mg/L	0.0200		93.8	78.8-121			

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Project Manager: Wes Weichert

Reported:
12/17/24 15:01

**Volatile Organic Compounds by EPA Method 8260B - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121115 - Volatiles (Continued)

LCS (4121115-BS1) (Continued)

Prepared & Analyzed: 12/11/24

Surrogate: Toluene-d8	0.0252		mg/L	0.0250	101	87.1-110			
Total Xylenes	0.059	0.001	mg/L	0.0600	98.9	74.3-134			

LCS Dup (4121115-BS1)

Prepared & Analyzed: 12/11/24

Surrogate: 4-Bromofluorobenzene	0.0250		mg/L	0.0250	99.8	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200	100	85.9-114	0.499	4.14	
Surrogate: Dibromofluoromethane	0.0255		mg/L	0.0250	102	82.4-141			
Ethylbenzene	0.019	0.0005	mg/L	0.0200	95.4	81.8-127	0.525	4.95	
m+p - Xylene	0.040	0.001	mg/L	0.0400	100	72.4-134	0.374	5.81	
o-Xylene	0.019	0.0005	mg/L	0.0200	96.0	76.2-135	0.417	6.32	
Toluene	0.019	0.0005	mg/L	0.0200	94.2	78.8-121	0.372	5.73	
Surrogate: Toluene-d8	0.0251		mg/L	0.0250	100	87.1-110			
Total Xylenes	0.059	0.001	mg/L	0.0600	98.8	74.3-134	0.118	5.84	

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121005 - SW846-3510

Blank (4121005-BLK1)

Prepared: 12/10/24 Analyzed: 12/12/24

1-Methylnaphthalene	ND	0.0005	mg/L							
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0310</i>		mg/L	<i>0.0500</i>		<i>61.9</i>	<i>7.39-192</i>			
2-Methylnaphthalene	ND	0.001	mg/L							
Acenaphthene	ND	0.001	mg/L							
Acenaphthylene	ND	0.001	mg/L							
Anthracene	ND	0.001	mg/L							
Benzo[a]anthracene	ND	0.001	mg/L							
Benzo[a]pyrene	ND	0.0002	mg/L							
Benzo[b]fluoranthene	ND	0.001	mg/L							
Benzo[g,h,i]perylene	ND	0.001	mg/L							
Benzo[k]fluoranthene	ND	0.001	mg/L							
Carbazole	ND	0.001	mg/L							
Chrysene	ND	0.001	mg/L							
Dibenz[a,h]anthracene	ND	0.001	mg/L							
Fluoranthene	ND	0.001	mg/L							
Fluorene	ND	0.001	mg/L							
Indeno[1,2,3-cd]pyrene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0331</i>		mg/L	<i>0.0500</i>		<i>66.2</i>	<i>5.17-184</i>			
Phenanthrene	ND	0.001	mg/L							
Pyrene	ND	0.001	mg/L							
<i>Surrogate: Terphenyl-d14</i>	<i>0.0379</i>		mg/L	<i>0.0500</i>		<i>75.7</i>	<i>27.5-139</i>			

LCS (4121005-BS1)

Prepared: 12/10/24 Analyzed: 12/12/24

1-Methylnaphthalene	0.007	0.0005	mg/L	0.0100		66.8	47.6-126			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0321</i>		mg/L	<i>0.0500</i>		<i>64.2</i>	<i>7.39-192</i>			
2-Methylnaphthalene	0.006	0.001	mg/L	0.0100		63.9	48.1-126			
Acenaphthene	0.006	0.001	mg/L	0.0100		64.4	49.4-119			
Acenaphthylene	0.007	0.001	mg/L	0.0100		65.9	50.2-124			
Anthracene	0.008	0.001	mg/L	0.0100		77.6	51.9-120			
Benzo[a]anthracene	0.007	0.001	mg/L	0.0100		73.7	49.9-123			
Benzo[a]pyrene	0.007	0.0002	mg/L	0.0100		74.1	52.9-126			
Benzo[b]fluoranthene	0.008	0.001	mg/L	0.0100		78.4	52.1-125			
Benzo[g,h,i]perylene	0.007	0.001	mg/L	0.0100		72.9	50.7-130			
Benzo[k]fluoranthene	0.007	0.001	mg/L	0.0100		73.2	49.3-131			
Carbazole	0.007	0.001	mg/L	0.0100		67.8	54-123			
Chrysene	0.008	0.001	mg/L	0.0100		76.0	50.1-125			
Dibenz[a,h]anthracene	0.008	0.001	mg/L	0.0100		75.8	51.7-129			
Fluoranthene	0.008	0.001	mg/L	0.0100		83.6	54.9-126			

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

**Polynuclear Aromatic Compounds by GC/MS - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	-------

Batch 4121005 - SW846-3510 (Continued)

LCS (4121005-BS1) (Continued)

Prepared: 12/10/24 Analyzed: 12/12/24

Fluorene	0.007	0.001	mg/L	0.0100		68.9	50.1-126		
Indeno[1,2,3-cd]pyrene	0.006	0.001	mg/L	0.0100		64.3	50-132		
Naphthalene	0.007	0.001	mg/L	0.0100		69.5	46.9-122		
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0344</i>		mg/L	<i>0.0500</i>		<i>68.8</i>	<i>5.17-184</i>		
Phenanthrene	0.008	0.001	mg/L	0.0100		76.2	53.6-120		
Pyrene	0.007	0.001	mg/L	0.0100		71.2	50.2-124		
<i>Surrogate: Terphenyl-d14</i>	<i>0.0374</i>		mg/L	<i>0.0500</i>		<i>74.9</i>	<i>27.5-139</i>		

LCS Dup (4121005-BSD1)

Prepared: 12/10/24 Analyzed: 12/12/24

1-Methylnaphthalene	0.007	0.0005	mg/L	0.0100		66.5	47.6-126	0.450	4.3	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0320</i>		mg/L	<i>0.0500</i>		<i>64.1</i>	<i>7.39-192</i>			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		67.0	48.1-126	4.74	4.47	QR-04
Acenaphthene	0.007	0.001	mg/L	0.0100		71.0	49.4-119	9.75	3.77	QR-04
Acenaphthylene	0.007	0.001	mg/L	0.0100		68.2	50.2-124	3.43	3.88	
Anthracene	0.008	0.001	mg/L	0.0100		76.2	51.9-120	1.82	4.49	
Benzo[a]anthracene	0.007	0.001	mg/L	0.0100		70.3	49.9-123	4.72	3.03	QR-04
Benzo[a]pyrene	0.007	0.0002	mg/L	0.0100		72.9	52.9-126	1.63	3.27	
Benzo[b]fluoranthene	0.008	0.001	mg/L	0.0100		75.7	52.1-125	3.50	6.95	
Benzo[g,h,i]perylene	0.008	0.001	mg/L	0.0100		76.1	50.7-130	4.30	6.35	
Benzo[k]fluoranthene	0.008	0.001	mg/L	0.0100		75.5	49.3-131	3.09	8.16	
Carbazole	0.008	0.001	mg/L	0.0100		77.3	54-123	13.1	4.78	QR-04
Chrysene	0.007	0.001	mg/L	0.0100		68.4	50.1-125	10.5	3.42	QR-04
Dibenz[a,h]anthracene	0.007	0.001	mg/L	0.0100		72.3	51.7-129	4.73	4.77	
Fluoranthene	0.008	0.001	mg/L	0.0100		82.0	54.9-126	1.93	6.19	
Fluorene	0.008	0.001	mg/L	0.0100		75.1	50.1-126	8.61	4.31	QR-04
Indeno[1,2,3-cd]pyrene	0.007	0.001	mg/L	0.0100		65.5	50-132	1.85	4.11	
Naphthalene	0.007	0.001	mg/L	0.0100		66.3	46.9-122	4.71	3.46	QR-04
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0328</i>		mg/L	<i>0.0500</i>		<i>65.5</i>	<i>5.17-184</i>			
Phenanthrene	0.007	0.001	mg/L	0.0100		69.9	53.6-120	8.62	5.04	QR-04
Pyrene	0.007	0.001	mg/L	0.0100		68.9	50.2-124	3.28	7.75	
<i>Surrogate: Terphenyl-d14</i>	<i>0.0365</i>		mg/L	<i>0.0500</i>		<i>73.0</i>	<i>27.5-139</i>			

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J wells'.

Veronica Wells, Project Manager

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:01

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
2412063-01	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412063-02	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412063-03	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412063-05	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
4121005-BSD1	PAH 8270C	2-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Acenaphthene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Benzo[a]anthracene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Carbazole	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Chrysene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Fluorene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Naphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Phenanthrene	QR-04	The RPD for the BS/BSD was outside of historical limits.
2412063-04	BTEX 8260B	4-Bromofluorobenzene	S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Wife-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:		Ensolium		Bill to (if different):		ANALYSIS REQUEST	
Address:		848 E 2nd Ave					
City:		Durango		State: CO Zip: 81301			
Phone #:		970-903-1607		Contact Person:		Wes Weichert	
Email Report to:		wweichert@ensolium.com		P.O. #:			
Project Name(optional):		07A2015003- Giant Bloomfield Refinery		Rush? <input type="checkbox"/> Y <input type="checkbox"/> N TAT Needed? <input type="checkbox"/>			
Sampler Name (Print):				Matrix (check one)		# of containers	
				<input type="checkbox"/> GROUNDWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> PRODUCED WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> SOIL <input type="checkbox"/> OTHER:		<input type="checkbox"/> No preservation <input type="checkbox"/> Nitric Acid <input type="checkbox"/> Hydrochloric Acid <input type="checkbox"/> Sulfuric Acid <input type="checkbox"/> Sodium Hydroxide <input type="checkbox"/> OTHER:	
Lab I.D.		Sample Name or Location		Collected			
2412-663 Lab Use Only				Date		Time	
1) 9		GBR-18		12/15		1415	
2) 01		GBR-20		1350		2	
3) 03		GBR-11		1320		2	
4) 04		GBR-7		1255		2	
5) 05		GBR-35		1455		2	
6)							
7)							
8)							
9)							
10)							

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL, within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12/15/24	Received By:	Date: 12/24/24	ADDITIONAL REMARKS:
Relinquished By:	Date: 12/12/24	Received By:	Date: 12/12/24	METALS ARE TO BE LAB FILLED
Relinquished By:	Date:	Received By:	Date:	*CC NICOLE PORTAIA
Relinquished By:	Date:	Received By:	Date:	nportalia@ensolium.com
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt: 6.4 °C
Relinquished By:	Date:	Received By:	Date:	Checked by: [Signature]
Relinquished By:	Date:	Received By:	Date:	On Ice? <input type="checkbox"/> Y <input type="checkbox"/> N
Relinquished By:	Date:	Received By:	Date:	Therm. used: [Signature]

* GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Page 1 of 1



SAMPLE CONDITION RECEIPT FORM

Date/Initials of person examining contents: 12.5.24
CON

Labeled by initials: _____
(if different than above)

Client Name: EnsalumWork Order # 2412-063Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: 43Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 8.4 °C Correction Factor: 0 °C Final Temp: 8.4 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC: *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Approved By:
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed: Field Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. <u>D-SS</u>
Sample Labels match COC: -Includes Date/Time/ID Matrix: <u>WT</u> SL OT	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

17 December 2024

Wes Weichert
Ensolum, LLC
848 E 2nd Ave
Durango, CO 81301
RE: 07A2015003- Giant Bloomfield Refinery

Enclosed are the results of analyses for samples received by the laboratory on 12/06/24 15:57. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive, flowing style.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GBR-22	2412079-01	Water	12/06/24 07:35	12/06/24 15:57	
GBR-30	2412079-02	Water	12/06/24 08:25	12/06/24 15:57	
GBR-34	2412079-03	Water	12/06/24 09:40	12/06/24 15:57	
GBR-60	2412079-04	Water	12/06/24 10:55	12/06/24 15:57	
GRW-10	2412079-05	Water	12/06/24 11:55	12/06/24 15:57	
GRW-12	2412079-06	Water	12/06/24 12:55	12/06/24 15:57	
GRW-13	2412079-07	Water	12/06/24 13:35	12/06/24 15:57	
GBR-24D	2412079-08	Water	12/06/24 14:30	12/06/24 15:57	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GBR-22

2412079-01 (Water)

Sampled Date: 12/06/24 07:35

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Dissolved Metals by ICPMS

Lead*	<0.0100	0.0100	0.0024	mg/L	20	12/17/24 11:22	EPA 200.8	IS1	AES
Manganese*	1.70	0.0015	0.0005	mg/L	3	12/11/24 13:44	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	0.001	0.0005	0.00005	mg/L	1	12/11/24 19:11	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			105 %	76.4-114		12/11/24 19:11	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			105 %	82.4-141		12/11/24 19:11	8260B		SK
<i>Surrogate: Toluene-d8</i>			94.9 %	87.1-110		12/11/24 19:11	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	0.011	0.0005	0.0002	mg/L	0.95	12/12/24 20:54	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 20:54	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 20:54	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			25.6 %	7.39-192		12/12/24 20:54	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			35.7 %	5.17-184		12/12/24 20:54	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			27.8 %	27.5-139		12/12/24 20:54	8270C		SK

Green Analytical Laboratories

Veronica Wells, Project Manager

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GBR-30

2412079-02 (Water)

Sampled Date: 12/06/24 08:25

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/17/24 11:23	EPA 200.8	IS1	AES
Manganese*	0.0024	0.0010	0.0004	mg/L	2	12/11/24 13:52	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 19:32	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			104 %	76.4-114		12/11/24 19:32	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			105 %	82.4-141		12/11/24 19:32	8260B		SK
<i>Surrogate: Toluene-d8</i>			97.2 %	87.1-110		12/11/24 19:32	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/12/24 22:05	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 22:05	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 22:05	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			55.4 %	7.39-192		12/12/24 22:05	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			58.3 %	5.17-184		12/12/24 22:05	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			61.3 %	27.5-139		12/12/24 22:05	8270C		SK

Green Analytical Laboratories

Veronica Wells, Project Manager

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Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GBR-34

2412079-03 (Water)

Sampled Date: 12/06/24 09:40

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 17:22	EPA 200.8	IS1, IS3	AES
Manganese*	1.58	0.0010	0.0004	mg/L	2	12/11/24 13:54	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 19:53	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			103 %	76.4-114		12/11/24 19:53	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			103 %	82.4-141		12/11/24 19:53	8260B		SK
<i>Surrogate: Toluene-d8</i>			97.5 %	87.1-110		12/11/24 19:53	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/12/24 22:36	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 22:36	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 22:36	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			46.7 %	7.39-192		12/12/24 22:36	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			55.8 %	5.17-184		12/12/24 22:36	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			53.9 %	27.5-139		12/12/24 22:36	8270C		SK

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GBR-60

2412079-04 (Water)

Sampled Date: 12/06/24 10:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 17:23	EPA 200.8	IS1, IS3	AES
Manganese*	0.308	0.0015	0.0005	mg/L	3	12/11/24 13:56	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 20:14	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			98.5 %	76.4-114		12/11/24 20:14	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			103 %	82.4-141		12/11/24 20:14	8260B		SK
<i>Surrogate: Toluene-d8</i>			98.5 %	87.1-110		12/11/24 20:14	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/12/24 23:06	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 23:06	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 23:06	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			34.7 %	7.39-192		12/12/24 23:06	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			41.3 %	5.17-184		12/12/24 23:06	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			36.3 %	27.5-139		12/12/24 23:06	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GRW-10

2412079-05 (Water)

Sampled Date: 12/06/24 11:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 17:25	EPA 200.8	IS1, IS3	AES
Manganese*	0.998	0.0015	0.0005	mg/L	3	12/11/24 13:57	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 20:35	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			98.2 %	76.4-114		12/11/24 20:35	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			103 %	82.4-141		12/11/24 20:35	8260B		SK
<i>Surrogate: Toluene-d8</i>			99.9 %	87.1-110		12/11/24 20:35	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/12/24 23:37	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/12/24 23:37	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/12/24 23:37	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			64.2 %	7.39-192		12/12/24 23:37	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			65.2 %	5.17-184		12/12/24 23:37	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			71.2 %	27.5-139		12/12/24 23:37	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GRW-12

2412079-06 (Water)

Sampled Date: 12/06/24 12:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 17:27	EPA 200.8	IS1, IS3	AES
Manganese*	0.945	0.0010	0.0004	mg/L	2	12/11/24 13:59	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 20:55	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.8 %	76.4-114		12/11/24 20:55	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			105 %	82.4-141		12/11/24 20:55	8260B		SK
<i>Surrogate: Toluene-d8</i>			101 %	87.1-110		12/11/24 20:55	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/13/24 00:08	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/13/24 00:08	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/13/24 00:08	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			49.6 %	7.39-192		12/13/24 00:08	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			58.8 %	5.17-184		12/13/24 00:08	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			55.6 %	27.5-139		12/13/24 00:08	8270C		SK

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Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GRW-13

2412079-07 (Water)

Sampled Date: 12/06/24 13:35

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 17:28	EPA 200.8	IS1, IS3	AES
Manganese*	0.845	0.0015	0.0005	mg/L	3	12/11/24 14:01	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 21:16	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.5 %	76.4-114		12/11/24 21:16	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		12/11/24 21:16	8260B		SK
<i>Surrogate: Toluene-d8</i>			101 %	87.1-110		12/11/24 21:16	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/13/24 00:39	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/13/24 00:39	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/13/24 00:39	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			70.8 %	7.39-192		12/13/24 00:39	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			74.2 %	5.17-184		12/13/24 00:39	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			73.4 %	27.5-139		12/13/24 00:39	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

GBR-24D

2412079-08 (Water)

Sampled Date: 12/06/24 14:30

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/13/24 17:30	EPA 200.8	IS1, IS3	AES
Manganese*	0.303	0.0015	0.0005	mg/L	3	12/11/24 14:02	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/11/24 21:38	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			99.3 %	76.4-114		12/11/24 21:38	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			99.4 %	82.4-141		12/11/24 21:38	8260B		SK
<i>Surrogate: Toluene-d8</i>			102 %	87.1-110		12/11/24 21:38	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/13/24 01:09	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/13/24 01:09	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/13/24 01:09	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			63.1 %	7.39-192		12/13/24 01:09	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			65.9 %	5.17-184		12/13/24 01:09	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			76.9 %	27.5-139		12/13/24 01:09	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B243629 - Dissolved ICPMS

Blank (B243629-BLK1)

Prepared: 12/11/24 Analyzed: 12/13/24

Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							

LCS (B243629-BS1)

Prepared: 12/11/24 Analyzed: 12/13/24

Lead	0.0496	0.0005	mg/L	0.0500		99.1	85-115			
Manganese	0.0511	0.0005	mg/L	0.0500		102	85-115			

LCS Dup (B243629-BSD1)

Prepared: 12/11/24 Analyzed: 12/13/24

Lead	0.0495	0.0005	mg/L	0.0500		99.1	85-115	0.0209	20	
Manganese	0.0512	0.0005	mg/L	0.0500		102	85-115	0.216	20	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121115 - Volatiles

Blank (4121115-BLK1)

Prepared & Analyzed: 12/11/24

Surrogate: 4-Bromofluorobenzene	0.0237		mg/L	0.0250		94.9	76.4-114			
Benzene	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.0257		mg/L	0.0250		103	82.4-141			
Ethylbenzene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
Surrogate: Toluene-d8	0.0252		mg/L	0.0250		101	87.1-110			
Total BTEX	ND	0.003	mg/L							
Total Xylenes	ND	0.001	mg/L							

LCS (4121115-BS1)

Prepared & Analyzed: 12/11/24

Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		101	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200		100	85.9-114			
Surrogate: Dibromofluoromethane	0.0251		mg/L	0.0250		100	82.4-141			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.0	81.8-127			
m+p - Xylene	0.040	0.001	mg/L	0.0400		101	72.4-134			
o-Xylene	0.019	0.0005	mg/L	0.0200		95.7	76.2-135			
Toluene	0.019	0.0005	mg/L	0.0200		93.8	78.8-121			

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

**Volatile Organic Compounds by EPA Method 8260B - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121115 - Volatiles (Continued)

LCS (4121115-BS1) (Continued)

Prepared & Analyzed: 12/11/24

Surrogate: Toluene-d8	0.0252		mg/L	0.0250	101	87.1-110			
Total Xylenes	0.059	0.001	mg/L	0.0600	98.9	74.3-134			

LCS Dup (4121115-BS1)

Prepared & Analyzed: 12/11/24

Surrogate: 4-Bromofluorobenzene	0.0250		mg/L	0.0250	99.8	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200	100	85.9-114	0.499	4.14	
Surrogate: Dibromofluoromethane	0.0255		mg/L	0.0250	102	82.4-141			
Ethylbenzene	0.019	0.0005	mg/L	0.0200	95.4	81.8-127	0.525	4.95	
m+p - Xylene	0.040	0.001	mg/L	0.0400	100	72.4-134	0.374	5.81	
o-Xylene	0.019	0.0005	mg/L	0.0200	96.0	76.2-135	0.417	6.32	
Toluene	0.019	0.0005	mg/L	0.0200	94.2	78.8-121	0.372	5.73	
Surrogate: Toluene-d8	0.0251		mg/L	0.0250	100	87.1-110			
Total Xylenes	0.059	0.001	mg/L	0.0600	98.8	74.3-134	0.118	5.84	

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121005 - SW846-3510

Blank (4121005-BLK1)

Prepared: 12/10/24 Analyzed: 12/12/24

1-Methylnaphthalene	ND	0.0005	mg/L							
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0310</i>		mg/L	<i>0.0500</i>		<i>61.9</i>	<i>7.39-192</i>			
2-Methylnaphthalene	ND	0.001	mg/L							
Acenaphthene	ND	0.001	mg/L							
Acenaphthylene	ND	0.001	mg/L							
Anthracene	ND	0.001	mg/L							
Benzo[a]anthracene	ND	0.001	mg/L							
Benzo[a]pyrene	ND	0.0002	mg/L							
Benzo[b]fluoranthene	ND	0.001	mg/L							
Benzo[g,h,i]perylene	ND	0.001	mg/L							
Benzo[k]fluoranthene	ND	0.001	mg/L							
Carbazole	ND	0.001	mg/L							
Chrysene	ND	0.001	mg/L							
Dibenz[a,h]anthracene	ND	0.001	mg/L							
Fluoranthene	ND	0.001	mg/L							
Fluorene	ND	0.001	mg/L							
Indeno[1,2,3-cd]pyrene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0331</i>		mg/L	<i>0.0500</i>		<i>66.2</i>	<i>5.17-184</i>			
Phenanthrene	ND	0.001	mg/L							
Pyrene	ND	0.001	mg/L							
<i>Surrogate: Terphenyl-d14</i>	<i>0.0379</i>		mg/L	<i>0.0500</i>		<i>75.7</i>	<i>27.5-139</i>			

LCS (4121005-BS1)

Prepared: 12/10/24 Analyzed: 12/12/24

1-Methylnaphthalene	0.007	0.0005	mg/L	0.0100		66.8	47.6-126			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0321</i>		mg/L	<i>0.0500</i>		<i>64.2</i>	<i>7.39-192</i>			
2-Methylnaphthalene	0.006	0.001	mg/L	0.0100		63.9	48.1-126			
Acenaphthene	0.006	0.001	mg/L	0.0100		64.4	49.4-119			
Acenaphthylene	0.007	0.001	mg/L	0.0100		65.9	50.2-124			
Anthracene	0.008	0.001	mg/L	0.0100		77.6	51.9-120			
Benzo[a]anthracene	0.007	0.001	mg/L	0.0100		73.7	49.9-123			
Benzo[a]pyrene	0.007	0.0002	mg/L	0.0100		74.1	52.9-126			
Benzo[b]fluoranthene	0.008	0.001	mg/L	0.0100		78.4	52.1-125			
Benzo[g,h,i]perylene	0.007	0.001	mg/L	0.0100		72.9	50.7-130			
Benzo[k]fluoranthene	0.007	0.001	mg/L	0.0100		73.2	49.3-131			
Carbazole	0.007	0.001	mg/L	0.0100		67.8	54-123			
Chrysene	0.008	0.001	mg/L	0.0100		76.0	50.1-125			
Dibenz[a,h]anthracene	0.008	0.001	mg/L	0.0100		75.8	51.7-129			
Fluoranthene	0.008	0.001	mg/L	0.0100		83.6	54.9-126			

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

**Polynuclear Aromatic Compounds by GC/MS - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4121005 - SW846-3510 (Continued)

LCS (4121005-BS1) (Continued)

Prepared: 12/10/24 Analyzed: 12/12/24

Fluorene	0.007	0.001	mg/L	0.0100		68.9	50.1-126			
Indeno[1,2,3-cd]pyrene	0.006	0.001	mg/L	0.0100		64.3	50-132			
Naphthalene	0.007	0.001	mg/L	0.0100		69.5	46.9-122			
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0344</i>		mg/L	<i>0.0500</i>		<i>68.8</i>	<i>5.17-184</i>			
Phenanthrene	0.008	0.001	mg/L	0.0100		76.2	53.6-120			
Pyrene	0.007	0.001	mg/L	0.0100		71.2	50.2-124			
<i>Surrogate: Terphenyl-d14</i>	<i>0.0374</i>		mg/L	<i>0.0500</i>		<i>74.9</i>	<i>27.5-139</i>			

LCS Dup (4121005-BS1)

Prepared: 12/10/24 Analyzed: 12/12/24

1-Methylnaphthalene	0.007	0.0005	mg/L	0.0100		66.5	47.6-126	0.450	4.3	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.0320</i>		mg/L	<i>0.0500</i>		<i>64.1</i>	<i>7.39-192</i>			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		67.0	48.1-126	4.74	4.47	QR-04
Acenaphthene	0.007	0.001	mg/L	0.0100		71.0	49.4-119	9.75	3.77	QR-04
Acenaphthylene	0.007	0.001	mg/L	0.0100		68.2	50.2-124	3.43	3.88	
Anthracene	0.008	0.001	mg/L	0.0100		76.2	51.9-120	1.82	4.49	
Benzo[a]anthracene	0.007	0.001	mg/L	0.0100		70.3	49.9-123	4.72	3.03	QR-04
Benzo[a]pyrene	0.007	0.0002	mg/L	0.0100		72.9	52.9-126	1.63	3.27	
Benzo[b]fluoranthene	0.008	0.001	mg/L	0.0100		75.7	52.1-125	3.50	6.95	
Benzo[g,h,i]perylene	0.008	0.001	mg/L	0.0100		76.1	50.7-130	4.30	6.35	
Benzo[k]fluoranthene	0.008	0.001	mg/L	0.0100		75.5	49.3-131	3.09	8.16	
Carbazole	0.008	0.001	mg/L	0.0100		77.3	54-123	13.1	4.78	QR-04
Chrysene	0.007	0.001	mg/L	0.0100		68.4	50.1-125	10.5	3.42	QR-04
Dibenz[a,h]anthracene	0.007	0.001	mg/L	0.0100		72.3	51.7-129	4.73	4.77	
Fluoranthene	0.008	0.001	mg/L	0.0100		82.0	54.9-126	1.93	6.19	
Fluorene	0.008	0.001	mg/L	0.0100		75.1	50.1-126	8.61	4.31	QR-04
Indeno[1,2,3-cd]pyrene	0.007	0.001	mg/L	0.0100		65.5	50-132	1.85	4.11	
Naphthalene	0.007	0.001	mg/L	0.0100		66.3	46.9-122	4.71	3.46	QR-04
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.0328</i>		mg/L	<i>0.0500</i>		<i>65.5</i>	<i>5.17-184</i>			
Phenanthrene	0.007	0.001	mg/L	0.0100		69.9	53.6-120	8.62	5.04	QR-04
Pyrene	0.007	0.001	mg/L	0.0100		68.9	50.2-124	3.28	7.75	
<i>Surrogate: Terphenyl-d14</i>	<i>0.0365</i>		mg/L	<i>0.0500</i>		<i>73.0</i>	<i>27.5-139</i>			

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
12/17/24 15:34

Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
2412079-01	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-02	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-03	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-03	Lead Dissolved by ICPMS	Lead	IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
2412079-04	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-04	Lead Dissolved by ICPMS	Lead	IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
2412079-05	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
4121005-BSD1	PAH 8270C	2-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Acenaphthene	QR-04	The RPD for the BS/BSD was outside of historical limits.
2412079-05	Lead Dissolved by ICPMS	Lead	IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
2412079-06	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-06	Lead Dissolved by ICPMS	Lead	IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
2412079-07	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-07	Lead Dissolved by ICPMS	Lead	IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
2412079-08	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412079-08	Lead Dissolved by ICPMS	Lead	IS3	Internal standard recovery did not meet method acceptance criteria for the CCV. The CCV recovery was within acceptable range. Samples not reanalyzed.
4121005-BSD1	PAH 8270C	Benzo[a]anthracene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Carbazole	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Chrysene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Fluorene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Naphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121005-BSD1	PAH 8270C	Phenanthrene	QR-04	The RPD for the BS/BSD was outside of historical limits.

Green Analytical Laboratories

Veronica Wells, Project Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Write-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:		Ensolum		Bill to (if different):		ANALYSIS REQUEST					
Address:		848 E 2nd Ave									
City:		Durango									
State:		CO									
Zip:		81301									
Phone #:		970-903-1607									
Contact Person:		Wes Weichert									
Email Report to:		wwweichert@ensolum.com									
Project Name(optional):				P.O. #:							
07A2015003- Giant Bloomfield Refinery											
Sampler Name (Print):				Rush?							
				Y <input type="checkbox"/> N <input type="checkbox"/>							
				TAT Needed?							
0 - Benzene only											
1 - 1-methylnaphthalene, 2-methylnaphthalene											
2 - 1,2-dimethyl naphthalene, 1,6-dimethyl naphthalene											
3 - 1,2,3-trimethyl naphthalene, 1,2,4-trimethyl naphthalene											
4 - 1,2,3,4-tetramethyl naphthalene											
5 - 1,2,3,4,5-pentamethyl naphthalene											
6 - 1,2,3,4,6-pentamethyl naphthalene											
7 - 1,2,3,4,6,7-hexamethyl naphthalene											
8 - 1,2,3,4,6,7,8-heptomethyl naphthalene											
9 - 1,2,3,4,6,7,8,9-octamethyl naphthalene											
10 - 1,2,3,4,6,7,8,9,10-nonamethyl naphthalene											
11 - 1,2,3,4,6,7,8,9,10,11-decamethyl naphthalene											
12 - 1,2,3,4,6,7,8,9,10,11,12-dodecamethyl naphthalene											
13 - 1,2,3,4,6,7,8,9,10,11,12,13-tridecamethyl naphthalene											
14 - 1,2,3,4,6,7,8,9,10,11,12,13,14-tetradecamethyl naphthalene											
15 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15-pentadecamethyl naphthalene											
16 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16-hexadecamethyl naphthalene											
17 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17-heptadecamethyl naphthalene											
18 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18-octadecamethyl naphthalene											
19 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19-nonadecamethyl naphthalene											
20 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20-eicosamethyl naphthalene											
21 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21-heneicosamethyl naphthalene											
22 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22-bicacosamethyl naphthalene											
23 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23-tricacosamethyl naphthalene											
24 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24-tetracosamethyl naphthalene											
25 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25-pentacosamethyl naphthalene											
26 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26-hexacosamethyl naphthalene											
27 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27-heptacosamethyl naphthalene											
28 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28-octacosamethyl naphthalene											
29 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29-nonacosamethyl naphthalene											
30 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30-triacontamethyl naphthalene											
31 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31-tetracontamethyl naphthalene											
32 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32-pentacosamethyl naphthalene											
33 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33-hexacosamethyl naphthalene											
34 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34-heptacosamethyl naphthalene											
35 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35-octacosamethyl naphthalene											
36 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36-nonacosamethyl naphthalene											
37 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37-triacontamethyl naphthalene											
38 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38-tetracontamethyl naphthalene											
39 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39-pentacosamethyl naphthalene											
40 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40-hexacosamethyl naphthalene											
41 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41-heptacosamethyl naphthalene											
42 - 1,2,3,4,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,											

[illegible]

PLEASE NOTE: GAL's liability and client's assuive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	12-18	Received By:	Date:	12-6-21	ADDITIONAL REMARKS:
	Time:	1:5:56		Time:	1:57	
Relinquished By:	Date:		Received By:	Date:		MELBARS fitted. *cc mpothalia@ensu
	Time:			Time:		
Relinquished By:	Date:		Received By:	Date:		Temperature at receipt:
	Time:			Time:		
						13.9 °C
						Checked by: JMA
						On Ice? <input checked="" type="radio"/> Y <input type="radio"/> N
						Therm. used: 10022

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges



SAMPLE CONDITION RECEIPT FORM

Date/Initials of person
examining contents: 12.6.24
mmLabeled by initials: _____
(if different than above)Client Name: EnsoliumWork Order # 2412-079Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____Thermometer Used: KL2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 13.9 °C Correction Factor: 0 °C Final Temp: 13.9 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC; *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Approved By:
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. <u>D-45</u>
Field Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID Matrix:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>WT</u> <u>SL</u> <u>OT</u>	11.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
jeremy.allen@greenanalytical.com

02 January 2025

Wes Weichert
Ensolum, LLC
848 E 2nd Ave
Durango, CO 81301
RE: 07A2015003- Giant Bloomfield Refinery

Enclosed are the results of analyses for samples received by the laboratory on 12/11/24 16:12. This data replaces the previous report (See case narrative). The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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2412122-06: GBR-32	10
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2412122-08: GBR-59	12
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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GBR-48	2412122-01	Water	12/11/24 13:20	12/11/24 16:12	
GBR-53	2412122-02	Water	12/11/24 10:10	12/11/24 16:12	
SHS-13	2412122-03	Water	12/11/24 10:45	12/11/24 16:12	
GBR-52	2412122-04	Water	12/11/24 11:45	12/11/24 16:12	
GBR-17	2412122-05	Water	12/11/24 12:15	12/11/24 16:12	
GBR-32	2412122-06	Water	12/11/24 12:50	12/11/24 16:12	
GBR-25	2412122-07	Water	12/11/24 08:30	12/11/24 16:12	
GBR-59	2412122-08	Water	12/11/24 07:55	12/11/24 16:12	
GBR-41R	2412122-09	Water	12/11/24 14:10	12/11/24 16:12	
GBR-54	2412122-10	Water	12/11/24 14:45	12/11/24 16:12	

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A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

This report has been reissued in order to remove some analytes from the 8260 and 8270 results, per client request. This replaces the previously issued report dated 2412122 GAL FINAL 12 31 24 1326.

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A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-48

2412122-01 (Water)

Sampled Date: 12/11/24 13:20

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:04	EPA 200.8	IS1	AES
Manganese*	0.0081	0.0050	0.0018	mg/L	10	12/19/24 14:04	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 12:14	8260B		SK
Surrogate: 4-Bromofluorobenzene			97.5 %	76.4-114		12/17/24 12:14	8260B		SK
Surrogate: Dibromofluoromethane			101 %	82.4-141		12/17/24 12:14	8260B		SK
Surrogate: Toluene-d8			101 %	87.1-110		12/17/24 12:14	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 19:56	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 19:56	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 19:56	8270C		SK
Surrogate: 2-Fluorobiphenyl			43.0 %	7.39-192		12/27/24 19:56	8270C		SK
Surrogate: Nitrobenzene-d5			43.2 %	5.17-184		12/27/24 19:56	8270C		SK
Surrogate: Terphenyl-d14			58.4 %	27.5-139		12/27/24 19:56	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-53

2412122-02 (Water)

Sampled Date: 12/11/24 10:10

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:09	EPA 200.8	IS1	AES
Manganese*	0.423	0.0050	0.0018	mg/L	10	12/19/24 14:09	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 12:35	8260B		SK
Surrogate: 4-Bromofluorobenzene			98.9 %	76.4-114		12/17/24 12:35	8260B		SK
Surrogate: Dibromofluoromethane			102 %	82.4-141		12/17/24 12:35	8260B		SK
Surrogate: Toluene-d8			101 %	87.1-110		12/17/24 12:35	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 20:26	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 20:26	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 20:26	8270C		SK
Surrogate: 2-Fluorobiphenyl			31.4 %	7.39-192		12/27/24 20:26	8270C		SK
Surrogate: Nitrobenzene-d5			25.5 %	5.17-184		12/27/24 20:26	8270C		SK
Surrogate: Terphenyl-d14			57.5 %	27.5-139		12/27/24 20:26	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

SHS-13

2412122-03 (Water)

Sampled Date: 12/11/24 10:45

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:11	EPA 200.8	IS1	AES
Manganese*	7.09	0.0050	0.0018	mg/L	10	12/19/24 14:11	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 12:57	8260B		SK
Surrogate: 4-Bromofluorobenzene			97.8 %	76.4-114		12/17/24 12:57	8260B		SK
Surrogate: Dibromofluoromethane			99.9 %	82.4-141		12/17/24 12:57	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/17/24 12:57	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 20:57	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 20:57	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 20:57	8270C		SK
Surrogate: 2-Fluorobiphenyl			43.0 %	7.39-192		12/27/24 20:57	8270C		SK
Surrogate: Nitrobenzene-d5			55.4 %	5.17-184		12/27/24 20:57	8270C		SK
Surrogate: Terphenyl-d14			53.7 %	27.5-139		12/27/24 20:57	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-52

2412122-04 (Water)

Sampled Date: 12/11/24 11:45

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:12	EPA 200.8	IS1	AES
Manganese*	0.0469	0.0050	0.0018	mg/L	10	12/19/24 14:12	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 13:18	8260B		SK
Surrogate: 4-Bromofluorobenzene			96.2 %	76.4-114		12/17/24 13:18	8260B		SK
Surrogate: Dibromofluoromethane			103 %	82.4-141		12/17/24 13:18	8260B		SK
Surrogate: Toluene-d8			100 %	87.1-110		12/17/24 13:18	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 21:28	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 21:28	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 21:28	8270C		SK
Surrogate: 2-Fluorobiphenyl			26.5 %	7.39-192		12/27/24 21:28	8270C		SK
Surrogate: Nitrobenzene-d5			25.0 %	5.17-184		12/27/24 21:28	8270C		SK
Surrogate: Terphenyl-d14			38.1 %	27.5-139		12/27/24 21:28	8270C		SK

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Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-17

2412122-05 (Water)

Sampled Date: 12/11/24 12:15

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:14	EPA 200.8	IS1	AES
Manganese*	<0.0050	0.0050	0.0018	mg/L	10	12/19/24 14:14	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 13:39	8260B		SK
Surrogate: 4-Bromofluorobenzene			97.5 %	76.4-114		12/17/24 13:39	8260B		SK
Surrogate: Dibromofluoromethane			100 %	82.4-141		12/17/24 13:39	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/17/24 13:39	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 21:58	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 21:58	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 21:58	8270C		SK
Surrogate: 2-Fluorobiphenyl			30.3 %	7.39-192		12/27/24 21:58	8270C		SK
Surrogate: Nitrobenzene-d5			27.8 %	5.17-184		12/27/24 21:58	8270C		SK
Surrogate: Terphenyl-d14			49.6 %	27.5-139		12/27/24 21:58	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-32

2412122-06 (Water)

Sampled Date: 12/11/24 12:50

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:16	EPA 200.8	IS1	AES
Manganese*	0.219	0.0050	0.0018	mg/L	10	12/19/24 14:16	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 14:00	8260B		SK
Surrogate: 4-Bromofluorobenzene			94.1 %	76.4-114		12/17/24 14:00	8260B		SK
Surrogate: Dibromofluoromethane			102 %	82.4-141		12/17/24 14:00	8260B		SK
Surrogate: Toluene-d8			101 %	87.1-110		12/17/24 14:00	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/30/24 10:42	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/30/24 10:42	8270C		SK
Naphthalene*	<0.002	0.002	0.0002	mg/L	1.9	12/30/24 10:42	8270C		SK
Surrogate: 2-Fluorobiphenyl			21.8 %	7.39-192		12/30/24 10:42	8270C		SK
Surrogate: Nitrobenzene-d5			24.1 %	5.17-184		12/30/24 10:42	8270C		SK
Surrogate: Terphenyl-d14			34.4 %	27.5-139		12/30/24 10:42	8270C		SK

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Ensolum, LLC
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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-25

2412122-07 (Water)

Sampled Date: 12/11/24 08:30

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:17	EPA 200.8	IS1	AES
Manganese*	0.666	0.0050	0.0018	mg/L	10	12/19/24 14:17	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 14:21	8260B		SK
Surrogate: 4-Bromofluorobenzene			100 %	76.4-114		12/17/24 14:21	8260B		SK
Surrogate: Dibromofluoromethane			102 %	82.4-141		12/17/24 14:21	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/17/24 14:21	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 23:00	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 23:00	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 23:00	8270C		SK
Surrogate: 2-Fluorobiphenyl			37.2 %	7.39-192		12/27/24 23:00	8270C		SK
Surrogate: Nitrobenzene-d5			59.5 %	5.17-184		12/27/24 23:00	8270C		SK
Surrogate: Terphenyl-d14			45.5 %	27.5-139		12/27/24 23:00	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-59

2412122-08 (Water)

Sampled Date: 12/11/24 07:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:19	EPA 200.8	IS1	AES
Manganese*	0.534	0.0050	0.0018	mg/L	10	12/19/24 14:19	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	0.001	0.0005	0.00005	mg/L	1	12/17/24 14:42	8260B		SK
Surrogate: 4-Bromofluorobenzene			98.3 %	76.4-114		12/17/24 14:42	8260B		SK
Surrogate: Dibromofluoromethane			102 %	82.4-141		12/17/24 14:42	8260B		SK
Surrogate: Toluene-d8			100 %	87.1-110		12/17/24 14:42	8260B		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-41R

2412122-09 (Water)

Sampled Date: 12/11/24 14:10

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:21	EPA 200.8	IS1	AES
Manganese*	3.10	0.0050	0.0018	mg/L	10	12/19/24 14:21	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 15:03	8260B		SK
Surrogate: 4-Bromofluorobenzene			99.6 %	76.4-114		12/17/24 15:03	8260B		SK
Surrogate: Dibromofluoromethane			101 %	82.4-141		12/17/24 15:03	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/17/24 15:03	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/27/24 23:30	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/27/24 23:30	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/27/24 23:30	8270C		SK
Surrogate: 2-Fluorobiphenyl			56.8 %	7.39-192		12/27/24 23:30	8270C		SK
Surrogate: Nitrobenzene-d5			85.6 %	5.17-184		12/27/24 23:30	8270C		SK
Surrogate: Terphenyl-d14			66.1 %	27.5-139		12/27/24 23:30	8270C		SK

Green Analytical Laboratories

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

GBR-54

2412122-10 (Water)

Sampled Date: 12/11/24 14:45

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:22	EPA 200.8	IS1	AES
Manganese*	2.15	0.0050	0.0018	mg/L	10	12/19/24 14:22	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/17/24 15:24	8260B		SK
Surrogate: 4-Bromofluorobenzene			94.4 %	76.4-114		12/17/24 15:24	8260B		SK
Surrogate: Dibromofluoromethane			102 %	82.4-141		12/17/24 15:24	8260B		SK
Surrogate: Toluene-d8			101 %	87.1-110		12/17/24 15:24	8260B		SK

Green Analytical Laboratories

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243727 - Dissolved ICPMS										
Blank (B243727-BLK1)										
Prepared & Analyzed: 12/19/24										
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
LCS (B243727-BS1)										
Prepared & Analyzed: 12/19/24										
Lead	0.0480	0.0005	mg/L	0.0500		96.0	85-115			
Manganese	0.0499	0.0005	mg/L	0.0500		99.7	85-115			
LCS Dup (B243727-BSD1)										
Prepared & Analyzed: 12/19/24										
Lead	0.0484	0.0005	mg/L	0.0500		96.9	85-115	0.923	20	
Manganese	0.0499	0.0005	mg/L	0.0500		99.8	85-115	0.0966	20	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4121711 - Volatiles										
Blank (4121711-BLK1)										
Prepared & Analyzed: 12/17/24										
Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		100	76.4-114			
Benzene	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.0247		mg/L	0.0250		98.9	82.4-141			
Surrogate: Toluene-d8	0.0254		mg/L	0.0250		101	87.1-110			
LCS (4121711-BS1)										
Prepared & Analyzed: 12/17/24										
Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		100	76.4-114			
Benzene	0.022	0.0005	mg/L	0.0200		108	85.9-114			
Surrogate: Dibromofluoromethane	0.0243		mg/L	0.0250		97.2	82.4-141			
Surrogate: Toluene-d8	0.0252		mg/L	0.0250		101	87.1-110			
LCS Dup (4121711-BSD1)										
Prepared & Analyzed: 12/17/24										
Surrogate: 4-Bromofluorobenzene	0.0252		mg/L	0.0250		101	76.4-114			
Benzene	0.021	0.0005	mg/L	0.0200		103	85.9-114	5.49	4.14	QR-04
Surrogate: Dibromofluoromethane	0.0241		mg/L	0.0250		96.4	82.4-141			
Surrogate: Toluene-d8	0.0256		mg/L	0.0250		102	87.1-110			

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4121707 - SW846-3510

Blank (4121707-BLK1)

Prepared: 12/17/24 Analyzed: 12/27/24

1-Methylnaphthalene	ND	0.0005	mg/L							
Surrogate: 2-Fluorobiphenyl	0.0355		mg/L	0.0500		70.9	7.39-192			
2-Methylnaphthalene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
Surrogate: Nitrobenzene-d5	0.0496		mg/L	0.0500		99.2	5.17-184			
Surrogate: Terphenyl-d14	0.0398		mg/L	0.0500		79.7	27.5-139			

LCS (4121707-BS1)

Prepared: 12/17/24 Analyzed: 12/27/24

1-Methylnaphthalene	0.008	0.0005	mg/L	0.0100		81.5	47.6-126			
Surrogate: 2-Fluorobiphenyl	0.0362		mg/L	0.0500		72.3	7.39-192			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		71.1	48.1-126			
Naphthalene	0.008	0.001	mg/L	0.0100		79.7	46.9-122			
Surrogate: Nitrobenzene-d5	0.0418		mg/L	0.0500		83.6	5.17-184			
Surrogate: Terphenyl-d14	0.0406		mg/L	0.0500		81.2	27.5-139			

LCS Dup (4121707-BS1)

Prepared: 12/17/24 Analyzed: 12/27/24

1-Methylnaphthalene	0.008	0.0005	mg/L	0.0100		75.8	47.6-126	7.25	4.3	QR-04
Surrogate: 2-Fluorobiphenyl	0.0357		mg/L	0.0500		71.5	7.39-192			
2-Methylnaphthalene	0.006	0.001	mg/L	0.0100		58.3	48.1-126	19.8	4.47	QR-04
Naphthalene	0.008	0.001	mg/L	0.0100		78.9	46.9-122	1.01	3.46	
Surrogate: Nitrobenzene-d5	0.0439		mg/L	0.0500		87.9	5.17-184			
Surrogate: Terphenyl-d14	0.0423		mg/L	0.0500		84.6	27.5-139			

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:32

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
2412122-01	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-02	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-03	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-04	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-05	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-06	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-07	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-08	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-09	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412122-10	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
4121707-BSD1	PAH 8270C	1-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121707-BSD1	PAH 8270C	2-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121711-BSD1	BTEX 8260B	Benzene	QR-04	The RPD for the BS/BSD was outside of historical limits.

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

75 Suttle Street
Durango, CO 81303
(970) 247-4220

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:		Ensolium		Bill to (if different):		ANALYSIS REQUEST									
Address:		848 E 2nd Ave													
City:		Durango		State: CO Zip: 81301											
Phone #:		970-903-1607													
Contact Person:		Wes Weichert													
Email Report to:		wweichert@ensolum.com													
Project Name(optional):		07A2015003- Giant Bloomfield Refinery													
Sampler Name (Print):															
Lab I.D.		Sample Name or Location		Collected											
2412-122 Lab Use Only															
1) GBR-48		Date		Time											
2) GBR-53		12/11		1320											
3) SHS-13				1010											
4) GBR-52				1045											
5) GBR-17				1145											
6) GBR-32				1215											
7) GBR-25				1250											
8) GBR-59				830											
9) GBR-41R				755											
10) GBR-54				1410											
				1445											
PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.															
Relinquished By:		Date: 12/11		Received By:		Date: 12/11/24		Time: 16:17		Time: 16:17		ADDITIONAL REMARKS: *CC			
Relinquished By:		Date:		Received By:		Date:		Time:		Time:		metals are to be lab filtered			
Relinquished By:		Date:		Received By:		Date:		Time:		Time:		Temperature at receipt: 2.9 °C			
												Checked by: [Signature]			
												On Ice? N			
												Therm. used: [Signature]			

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Page 1 of 1



SAMPLE CONDITION RECEIPT FORM

 Date/Initials of person examining contents: 12.11.24
CD

 Labeled by initials: _____
 (if different than above)
Client Name: FranklinWork Order # 2412-122
 Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ Other

 Custody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____

 Thermometer Used: 12.2 Samples on ice, cooling process has begun: ☒ Yes ☐ No

 Type of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 2.9 °C Correction Factor: 0 °C Final Temp: 2.9 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☐ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC: *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Approved By:
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. <u>D-SS</u>
Field Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID	<input type="checkbox"/> Yes <input type="checkbox"/> No	11.
Matrix:	<input checked="" type="checkbox"/> WT <input type="checkbox"/> SL <input type="checkbox"/> OT	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

02 January 2025

Wes Weichert
Ensolum, LLC
848 E 2nd Ave
Durango, CO 81301
RE: 07A2015003- Giant Bloomfield Refinery

Enclosed are the results of analyses for samples received by the laboratory on 12/12/24 15:39. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive, flowing style.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GBR - 50	2412133-01	Water	12/12/24 14:10	12/12/24 15:39	
GRW - 6	2412133-02	Water	12/12/24 13:30	12/12/24 15:39	
GRW - 5	2412133-03	Water	12/12/24 13:05	12/12/24 15:39	
GBR - 8	2412133-04	Water	12/12/24 12:30	12/12/24 15:39	
GRW - 2	2412133-05	Water	12/12/24 11:30	12/12/24 15:39	
GRW - 4	2412133-06	Water	12/12/24 11:55	12/12/24 15:39	
GRW - 1	2412133-07	Water	12/12/24 11:05	12/12/24 15:39	
GBR - 5	2412133-08	Water	12/12/24 10:00	12/12/24 15:39	
GBR - 57	2412133-09	Water	12/12/24 10:30	12/12/24 15:39	
GBR - 58	2412133-10	Water	12/12/24 09:00	12/12/24 15:39	
GRW - 9	2412133-11	Water	12/12/24 09:35	12/12/24 15:39	
GBR - 56	2412133-12	Water	12/12/24 08:25	12/12/24 15:39	

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A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GBR - 50

2412133-01 (Water)

Sampled Date: 12/12/24 14:10

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:24	EPA 200.8	IS1	AES
Manganese*	0.130	0.0050	0.0018	mg/L	10	12/19/24 14:24	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 12:00	8260B		SK
Surrogate: 4-Bromofluorobenzene			96.7 %	76.4-114		12/19/24 12:00	8260B		SK
Surrogate: Dibromofluoromethane			104 %	82.4-141		12/19/24 12:00	8260B		SK
Surrogate: Toluene-d8			104 %	87.1-110		12/19/24 12:00	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/28/24 00:01	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/28/24 00:01	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/28/24 00:01	8270C		SK
Surrogate: 2-Fluorobiphenyl			56.0 %	7.39-192		12/28/24 00:01	8270C		SK
Surrogate: Nitrobenzene-d5			75.0 %	5.17-184		12/28/24 00:01	8270C		SK
Surrogate: Terphenyl-d14			72.4 %	27.5-139		12/28/24 00:01	8270C		SK

Green Analytical Laboratories

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GRW - 6

2412133-02 (Water)

Sampled Date: 12/12/24 13:30

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:29	EPA 200.8	IS1	AES
Manganese*	3.63	0.0050	0.0018	mg/L	10	12/19/24 14:29	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 12:21	8260B		SK
Surrogate: 4-Bromofluorobenzene			95.0 %	76.4-114		12/19/24 12:21	8260B		SK
Surrogate: Dibromofluoromethane			102 %	82.4-141		12/19/24 12:21	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/19/24 12:21	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/28/24 00:31	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/28/24 00:31	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/28/24 00:31	8270C		SK
Surrogate: 2-Fluorobiphenyl			61.3 %	7.39-192		12/28/24 00:31	8270C		SK
Surrogate: Nitrobenzene-d5			80.4 %	5.17-184		12/28/24 00:31	8270C		SK
Surrogate: Terphenyl-d14			74.1 %	27.5-139		12/28/24 00:31	8270C		SK

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Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GRW - 5

2412133-03 (Water)

Sampled Date: 12/12/24 13:05

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:31	EPA 200.8	IS1	AES
Manganese*	5.59	0.0050	0.0018	mg/L	10	12/19/24 14:31	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 12:43	8260B		SK
Surrogate: 4-Bromofluorobenzene			92.6 %	76.4-114		12/19/24 12:43	8260B		SK
Surrogate: Dibromofluoromethane			105 %	82.4-141		12/19/24 12:43	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/19/24 12:43	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/28/24 01:02	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/28/24 01:02	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/28/24 01:02	8270C		SK
Surrogate: 2-Fluorobiphenyl			57.6 %	7.39-192		12/28/24 01:02	8270C		SK
Surrogate: Nitrobenzene-d5			85.9 %	5.17-184		12/28/24 01:02	8270C		SK
Surrogate: Terphenyl-d14			72.6 %	27.5-139		12/28/24 01:02	8270C		SK

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GBR - 8

2412133-04 (Water)

Sampled Date: 12/12/24 12:30

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	0.0159	0.0050	0.0012	mg/L	10	12/19/24 14:32	EPA 200.8	IS1	AES
Manganese*	3.81	0.0050	0.0018	mg/L	10	12/19/24 14:32	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 13:04	8260B		SK
Surrogate: 4-Bromofluorobenzene			97.1 %	76.4-114		12/19/24 13:04	8260B		SK
Surrogate: Dibromofluoromethane			103 %	82.4-141		12/19/24 13:04	8260B		SK
Surrogate: Toluene-d8			103 %	87.1-110		12/19/24 13:04	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 11:12	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 11:12	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 11:12	8270C		SK
Surrogate: 2-Fluorobiphenyl			19.4 %	7.39-192		12/30/24 11:12	8270C		SK
Surrogate: Nitrobenzene-d5			21.2 %	5.17-184		12/30/24 11:12	8270C		SK
Surrogate: Terphenyl-d14			28.4 %	27.5-139		12/30/24 11:12	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GRW - 2

2412133-05 (Water)

Sampled Date: 12/12/24 11:30

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:39	EPA 200.8	IS1	AES
Manganese*	4.81	0.0050	0.0018	mg/L	10	12/19/24 14:39	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 13:25	8260B		SK
Surrogate: 4-Bromofluorobenzene			95.1 %	76.4-114		12/19/24 13:25	8260B		SK
Surrogate: Dibromofluoromethane			104 %	82.4-141		12/19/24 13:25	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/19/24 13:25	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 11:42	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 11:42	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 11:42	8270C		SK
Surrogate: 2-Fluorobiphenyl			61.2 %	7.39-192		12/30/24 11:42	8270C		SK
Surrogate: Nitrobenzene-d5			51.7 %	5.17-184		12/30/24 11:42	8270C		SK
Surrogate: Terphenyl-d14			73.0 %	27.5-139		12/30/24 11:42	8270C		SK

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848 E 2nd Ave
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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GRW - 4

2412133-06 (Water)

Sampled Date: 12/12/24 11:55

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:41	EPA 200.8	IS1	AES
Manganese*	1.52	0.0050	0.0018	mg/L	10	12/19/24 14:41	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 13:46	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			93.6 %	76.4-114		12/19/24 13:46	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		12/19/24 13:46	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 13:46	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 12:13	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 12:13	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 12:13	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			39.7 %	7.39-192		12/30/24 12:13	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			55.1 %	5.17-184		12/30/24 12:13	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			54.3 %	27.5-139		12/30/24 12:13	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GRW - 1

2412133-07 (Water)

Sampled Date: 12/12/24 11:05

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:42	EPA 200.8	IS1	AES
Manganese*	1.89	0.0050	0.0018	mg/L	10	12/19/24 14:42	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 14:07	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			93.6 %	76.4-114		12/19/24 14:07	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		12/19/24 14:07	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 14:07	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 12:44	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 12:44	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 12:44	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			56.2 %	7.39-192		12/30/24 12:44	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			74.8 %	5.17-184		12/30/24 12:44	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			63.5 %	27.5-139		12/30/24 12:44	8270C		SK

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GBR - 5

2412133-08 (Water)

Sampled Date: 12/12/24 10:00

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/19/24 14:44	EPA 200.8	IS1	AES
Manganese*	6.21	0.0050	0.0018	mg/L	10	12/19/24 14:44	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 14:28	8260B		SK
Surrogate: 4-Bromofluorobenzene			107 %	76.4-114		12/19/24 14:28	8260B		SK
Surrogate: Dibromofluoromethane			107 %	82.4-141		12/19/24 14:28	8260B		SK
Surrogate: Toluene-d8			101 %	87.1-110		12/19/24 14:28	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 13:14	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 13:14	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 13:14	8270C		SK
Surrogate: 2-Fluorobiphenyl			46.3 %	7.39-192		12/30/24 13:14	8270C		SK
Surrogate: Nitrobenzene-d5			62.3 %	5.17-184		12/30/24 13:14	8270C		SK
Surrogate: Terphenyl-d14			52.0 %	27.5-139		12/30/24 13:14	8270C		SK

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GBR - 57

2412133-09 (Water)

Sampled Date: 12/12/24 10:30

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/26/24 17:41	EPA 200.8	IS1	AES
Manganese*	0.605	0.0050	0.0018	mg/L	10	12/19/24 14:49	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 14:49	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			95.8 %	76.4-114		12/19/24 14:49	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			102 %	82.4-141		12/19/24 14:49	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 14:49	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/31/24 14:44	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/31/24 14:44	8270C		SK
Naphthalene*	<0.002	0.002	0.0002	mg/L	1.9	12/31/24 14:44	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			4.32 %	7.39-192		12/31/24 14:44	8270C	S-06	SK
<i>Surrogate: Nitrobenzene-d5</i>			6.22 %	5.17-184		12/31/24 14:44	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			22.0 %	27.5-139		12/31/24 14:44	8270C	S-06	SK

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GBR - 58

2412133-10 (Water)

Sampled Date: 12/12/24 09:00

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/26/24 17:42	EPA 200.8	IS1	AES
Manganese*	0.329	0.0050	0.0018	mg/L	10	12/19/24 14:51	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 15:10	8260B		SK
Surrogate: 4-Bromofluorobenzene			94.0 %	76.4-114		12/19/24 15:10	8260B		SK
Surrogate: Dibromofluoromethane			104 %	82.4-141		12/19/24 15:10	8260B		SK
Surrogate: Toluene-d8			103 %	87.1-110		12/19/24 15:10	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 13:45	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 13:45	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 13:45	8270C		SK
Surrogate: 2-Fluorobiphenyl			50.5 %	7.39-192		12/30/24 13:45	8270C		SK
Surrogate: Nitrobenzene-d5			58.3 %	5.17-184		12/30/24 13:45	8270C		SK
Surrogate: Terphenyl-d14			55.8 %	27.5-139		12/30/24 13:45	8270C		SK

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GRW - 9

2412133-11 (Water)

Sampled Date: 12/12/24 09:35

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/26/24 17:47	EPA 200.8	IS1	AES
Manganese*	0.664	0.0050	0.0018	mg/L	10	12/19/24 14:52	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 15:32	8260B		SK
Surrogate: 4-Bromofluorobenzene			95.6 %	76.4-114		12/19/24 15:32	8260B		SK
Surrogate: Dibromofluoromethane			104 %	82.4-141		12/19/24 15:32	8260B		SK
Surrogate: Toluene-d8			104 %	87.1-110		12/19/24 15:32	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/31/24 15:15	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/31/24 15:15	8270C		SK
Naphthalene*	<0.002	0.002	0.0002	mg/L	1.9	12/31/24 15:15	8270C		SK
Surrogate: 2-Fluorobiphenyl			2.45 %	7.39-192		12/31/24 15:15	8270C	S-06	SK
Surrogate: Nitrobenzene-d5			2.27 %	5.17-184		12/31/24 15:15	8270C	S-06	SK
Surrogate: Terphenyl-d14			36.2 %	27.5-139		12/31/24 15:15	8270C		SK

Green Analytical Laboratories

Veronica Wells, Project Manager

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

GBR - 56

2412133-12 (Water)

Sampled Date: 12/12/24 08:25

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/26/24 17:49	EPA 200.8	IS1	AES
Manganese*	0.239	0.0050	0.0018	mg/L	10	12/19/24 14:54	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 15:53	8260B		SK
Surrogate: 4-Bromofluorobenzene			96.0 %	76.4-114		12/19/24 15:53	8260B		SK
Surrogate: Dibromofluoromethane			104 %	82.4-141		12/19/24 15:53	8260B		SK
Surrogate: Toluene-d8			102 %	87.1-110		12/19/24 15:53	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 14:15	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 14:15	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 14:15	8270C		SK
Surrogate: 2-Fluorobiphenyl			68.4 %	7.39-192		12/30/24 14:15	8270C		SK
Surrogate: Nitrobenzene-d5			91.7 %	5.17-184		12/30/24 14:15	8270C		SK
Surrogate: Terphenyl-d14			72.3 %	27.5-139		12/30/24 14:15	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B243727 - Dissolved ICPMS

Blank (B243727-BLK1)

Prepared & Analyzed: 12/19/24

Lead	ND	0.0005	mg/L
Manganese	ND	0.0005	mg/L

LCS (B243727-BS1)

Prepared & Analyzed: 12/19/24

Lead	0.0480	0.0005	mg/L	0.0500	96.0	85-115
Manganese	0.0499	0.0005	mg/L	0.0500	99.7	85-115

LCS Dup (B243727-BSD1)

Prepared & Analyzed: 12/19/24

Lead	0.0484	0.0005	mg/L	0.0500	96.9	85-115	0.923	20
Manganese	0.0499	0.0005	mg/L	0.0500	99.8	85-115	0.0966	20

Batch B243728 - Dissolved ICPMS

Blank (B243728-BLK1)

Prepared & Analyzed: 12/19/24

Lead	ND	0.0005	mg/L
Manganese	ND	0.0005	mg/L

LCS (B243728-BS1)

Prepared & Analyzed: 12/19/24

Lead	0.0480	0.0005	mg/L	0.0500	96.0	85-115
Manganese	0.0493	0.0005	mg/L	0.0500	98.6	85-115

LCS Dup (B243728-BSD1)

Prepared & Analyzed: 12/19/24

Lead	0.0479	0.0005	mg/L	0.0500	95.7	85-115	0.246	20
Manganese	0.0495	0.0005	mg/L	0.0500	98.9	85-115	0.297	20

Green Analytical Laboratories

Veronica Wells, Project Manager

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121901 - Volatiles

Blank (4121901-BLK1)

Prepared & Analyzed: 12/19/24

Surrogate: 4-Bromofluorobenzene	0.0246		mg/L	0.0250		98.2	76.4-114			
Benzene	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.0261		mg/L	0.0250		104	82.4-141			
Surrogate: Toluene-d8	0.0259		mg/L	0.0250		104	87.1-110			

LCS (4121901-BS1)

Prepared & Analyzed: 12/19/24

Surrogate: 4-Bromofluorobenzene	0.0252		mg/L	0.0250		101	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200		100	85.9-114			
Surrogate: Dibromofluoromethane	0.0247		mg/L	0.0250		98.9	82.4-141			
Surrogate: Toluene-d8	0.0259		mg/L	0.0250		103	87.1-110			

LCS Dup (4121901-BSD1)

Prepared & Analyzed: 12/19/24

Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		100	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200		101	85.9-114	0.447	4.14	
Surrogate: Dibromofluoromethane	0.0251		mg/L	0.0250		101	82.4-141			
Surrogate: Toluene-d8	0.0255		mg/L	0.0250		102	87.1-110			

Green Analytical Laboratories

Veronica Wells, Project Manager

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Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4121707 - SW846-3510

Blank (4121707-BLK1)

Prepared: 12/17/24 Analyzed: 12/27/24

1-Methylnaphthalene	ND	0.0005	mg/L							
Surrogate: 2-Fluorobiphenyl	0.0355		mg/L	0.0500		70.9	7.39-192			
2-Methylnaphthalene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
Surrogate: Nitrobenzene-d5	0.0496		mg/L	0.0500		99.2	5.17-184			
Surrogate: Terphenyl-d14	0.0398		mg/L	0.0500		79.7	27.5-139			

LCS (4121707-BS1)

Prepared: 12/17/24 Analyzed: 12/27/24

1-Methylnaphthalene	0.008	0.0005	mg/L	0.0100		81.5	47.6-126			
Surrogate: 2-Fluorobiphenyl	0.0362		mg/L	0.0500		72.3	7.39-192			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		71.1	48.1-126			
Naphthalene	0.008	0.001	mg/L	0.0100		79.7	46.9-122			
Surrogate: Nitrobenzene-d5	0.0418		mg/L	0.0500		83.6	5.17-184			
Surrogate: Terphenyl-d14	0.0406		mg/L	0.0500		81.2	27.5-139			

LCS Dup (4121707-BSD1)

Prepared: 12/17/24 Analyzed: 12/27/24

1-Methylnaphthalene	0.008	0.0005	mg/L	0.0100		75.8	47.6-126	7.25	4.3	QR-04
Surrogate: 2-Fluorobiphenyl	0.0357		mg/L	0.0500		71.5	7.39-192			
2-Methylnaphthalene	0.006	0.001	mg/L	0.0100		58.3	48.1-126	19.8	4.47	QR-04
Naphthalene	0.008	0.001	mg/L	0.0100		78.9	46.9-122	1.01	3.46	
Surrogate: Nitrobenzene-d5	0.0439		mg/L	0.0500		87.9	5.17-184			
Surrogate: Terphenyl-d14	0.0423		mg/L	0.0500		84.6	27.5-139			

Batch 4122017 - SW846-3510

Blank (4122017-BLK1)

Prepared: 12/20/24 Analyzed: 12/30/24

1-Methylnaphthalene	ND	0.0005	mg/L							
Surrogate: 2-Fluorobiphenyl	0.0348		mg/L	0.0500		69.5	7.39-192			
2-Methylnaphthalene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
Surrogate: Nitrobenzene-d5	0.0494		mg/L	0.0500		98.9	5.17-184			
Surrogate: Terphenyl-d14	0.0429		mg/L	0.0500		85.7	27.5-139			

LCS (4122017-BS1)

Prepared: 12/20/24 Analyzed: 12/30/24

1-Methylnaphthalene	0.008	0.0005	mg/L	0.0100		82.6	47.6-126			
Surrogate: 2-Fluorobiphenyl	0.0309		mg/L	0.0500		61.9	7.39-192			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		70.5	48.1-126			

Green Analytical Laboratories

Veronica Wells, Project Manager

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

**Polynuclear Aromatic Compounds by GC/MS - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4122017 - SW846-3510 (Continued)

LCS (4122017-BS1) (Continued)

Prepared: 12/20/24 Analyzed: 12/30/24

Naphthalene	0.008	0.001	mg/L	0.0100		81.4	46.9-122			
Surrogate: Nitrobenzene-d5	0.0435		mg/L	0.0500		87.0	5.17-184			
Surrogate: Terphenyl-dl4	0.0402		mg/L	0.0500		80.4	27.5-139			

LCS Dup (4122017-BSD1)

Prepared: 12/20/24 Analyzed: 12/30/24

1-Methylnaphthalene	0.007	0.0005	mg/L	0.0100		72.9	47.6-126	12.5	4.3	QR-04
Surrogate: 2-Fluorobiphenyl	0.0340		mg/L	0.0500		68.0	7.39-192			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		74.2	48.1-126	5.11	4.47	QR-04
Naphthalene	0.009	0.001	mg/L	0.0100		89.3	46.9-122	9.26	3.46	QR-04
Surrogate: Nitrobenzene-d5	0.0534		mg/L	0.0500		107	5.17-184			
Surrogate: Terphenyl-dl4	0.0388		mg/L	0.0500		77.7	27.5-139			

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-04	The RPD for the BS/BSD was outside of historical limits.
IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

Veronica Wells, Project Manager

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Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 12:50

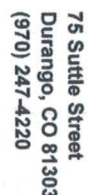
Qualifier Summary

LabNumber	Analysis	Analyte	Qualifier	TextBody
2412133-01	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-02	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-03	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-04	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-05	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-06	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-07	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-08	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-09	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-10	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-11	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412133-12	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
4121707-BSD1	PAH 8270C	1-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4121707-BSD1	PAH 8270C	2-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4122017-BSD1	PAH 8270C	1-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4122017-BSD1	PAH 8270C	2-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4122017-BSD1	PAH 8270C	Naphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
2412133-09	PAH 8270C	2-Fluorobiphenyl	S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
2412133-09	PAH 8270C	Terphenyl-dl4	S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
2412133-11	PAH 8270C	2-Fluorobiphenyl	S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
2412133-11	PAH 8270C	Nitrobenzene-d5	S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

Green Analytical Laboratories

Veronica Wells, Project Manager

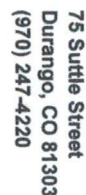
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Wite-Out™ or similar products cannot be used on the Chain of Custody.

[illegible]



Note: White-Out™ or similar products cannot be used on the Chain of Custody

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.



SAMPLE CONDITION RECEIPT FORM

Date/Initials of person examining contents: 12.12.24
CRMLabeled by initials: _____
(if different than above)Client Name: EnsolunaWork Order # 2412-133Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 7.3 °C Correction Factor: 0 °C Final Temp: 7.3 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC: *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Approved By:
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. <u>DSS</u>
Field Filtered: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11.
Matrix: <u>WT</u> SL OT		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

02 January 2025

Wes Weichert
Ensolum, LLC
848 E 2nd Ave
Durango, CO 81301
RE: 07A2015003- Giant Bloomfield Refinery

Enclosed are the results of analyses for samples received by the laboratory on 12/16/24 15:10. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: TX-C24-00019

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: TX-C24-00112

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GBR - 21D	2412160-01	Water	12/16/24 12:10	12/16/24 15:10	
GBR - 31	2412160-02	Water	12/16/24 13:05	12/16/24 15:10	
GRW - 11	2412160-03	Water	12/16/24 11:40	12/16/24 15:10	
GBR - 13	2412160-04	Water	12/16/24 10:45	12/16/24 15:10	
GRW - 3	2412160-05	Water	12/16/24 10:00	12/16/24 15:10	
GBR - 39	2412160-06	Water	12/16/24 13:45	12/16/24 15:10	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

GBR - 21D

2412160-01 (Water)

Sampled Date: 12/16/24 12:10

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0100	0.0100	0.0024	mg/L	20	12/26/24 17:56	EPA 200.8	IS1	AES
Manganese*	0.341	0.0050	0.0018	mg/L	10	12/19/24 15:12	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 16:32	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.9 %	76.4-114		12/19/24 16:32	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			106 %	82.4-141		12/19/24 16:32	8260B		SK
<i>Surrogate: Toluene-d8</i>			102 %	87.1-110		12/19/24 16:32	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 20:23	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 20:23	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 20:23	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			17.7 %	7.39-192		12/30/24 20:23	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			30.3 %	5.17-184		12/30/24 20:23	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			27.1 %	27.5-139		12/30/24 20:23	8270C	S-04	SK

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Ensolum, LLC
848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

GBR - 31

2412160-02 (Water)

Sampled Date: 12/16/24 13:05

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/26/24 18:01	EPA 200.8	IS1	AES
Manganese*	4.11	0.0050	0.0018	mg/L	10	12/19/24 15:17	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 16:53	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			96.4 %	76.4-114		12/19/24 16:53	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		12/19/24 16:53	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 16:53	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/31/24 15:45	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/31/24 15:45	8270C		SK
Naphthalene*	<0.002	0.002	0.0002	mg/L	1.9	12/31/24 15:45	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			19.6 %	7.39-192		12/31/24 15:45	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			23.5 %	5.17-184		12/31/24 15:45	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			25.2 %	27.5-139		12/31/24 15:45	8270C	S-06	SK

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

GRW - 11

2412160-03 (Water)

Sampled Date: 12/16/24 11:40

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/26/24 18:02	EPA 200.8	IS1	AES
Manganese*	1.06	0.0050	0.0018	mg/L	10	12/19/24 15:19	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 17:13	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.0 %	76.4-114		12/19/24 17:13	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			105 %	82.4-141		12/19/24 17:13	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 17:13	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/31/24 16:16	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/31/24 16:16	8270C		SK
Naphthalene*	0.003	0.002	0.0002	mg/L	1.9	12/31/24 16:16	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			24.7 %	7.39-192		12/31/24 16:16	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			29.0 %	5.17-184		12/31/24 16:16	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			36.1 %	27.5-139		12/31/24 16:16	8270C		SK

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

GBR - 13

2412160-04 (Water)

Sampled Date: 12/16/24 10:45

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0100	0.0100	0.0024	mg/L	20	12/31/24 11:50	EPA 200.8	IS1	AES
Manganese*	6.29	0.0050	0.0018	mg/L	10	12/19/24 15:20	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 17:35	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.6 %	76.4-114		12/19/24 17:35	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			103 %	82.4-141		12/19/24 17:35	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 17:35	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/31/24 16:46	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/31/24 16:46	8270C		SK
Naphthalene*	<0.002	0.002	0.0002	mg/L	1.9	12/31/24 16:46	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			17.6 %	7.39-192		12/31/24 16:46	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			24.9 %	5.17-184		12/31/24 16:46	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			28.1 %	27.5-139		12/31/24 16:46	8270C		SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

GRW - 3

2412160-05 (Water)

Sampled Date: 12/16/24 10:00

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/31/24 11:51	EPA 200.8	IS1	AES
Manganese*	6.13	0.0050	0.0018	mg/L	10	12/19/24 15:22	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 17:56	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.4 %	76.4-114		12/19/24 17:56	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			107 %	82.4-141		12/19/24 17:56	8260B		SK
<i>Surrogate: Toluene-d8</i>			101 %	87.1-110		12/19/24 17:56	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.001	0.001	0.0004	mg/L	1.9	12/31/24 17:17	8270C		SK
2-Methylnaphthalene*	<0.002	0.002	0.0004	mg/L	1.9	12/31/24 17:17	8270C		SK
Naphthalene*	<0.002	0.002	0.0002	mg/L	1.9	12/31/24 17:17	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			20.6 %	7.39-192		12/31/24 17:17	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			26.0 %	5.17-184		12/31/24 17:17	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			26.9 %	27.5-139		12/31/24 17:17	8270C	S-06	SK

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

GBR - 39

2412160-06 (Water)

Sampled Date: 12/16/24 13:45

Sampled By:

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Lead*	<0.0050	0.0050	0.0012	mg/L	10	12/31/24 11:56	EPA 200.8	IS1	AES
Manganese*	0.0109	0.0050	0.0018	mg/L	10	12/19/24 15:24	EPA 200.8		AES

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Volatile Organic Compounds by EPA Method 8260B

Benzene*	<0.0005	0.0005	0.00005	mg/L	1	12/19/24 18:17	8260B		SK
<i>Surrogate: 4-Bromofluorobenzene</i>			97.6 %	76.4-114		12/19/24 18:17	8260B		SK
<i>Surrogate: Dibromofluoromethane</i>			105 %	82.4-141		12/19/24 18:17	8260B		SK
<i>Surrogate: Toluene-d8</i>			103 %	87.1-110		12/19/24 18:17	8260B		SK

Polynuclear Aromatic Compounds by GC/MS

1-Methylnaphthalene	<0.0005	0.0005	0.0002	mg/L	0.95	12/30/24 19:22	8270C		SK
2-Methylnaphthalene*	<0.001	0.001	0.0002	mg/L	0.95	12/30/24 19:22	8270C		SK
Naphthalene*	<0.001	0.001	0.0001	mg/L	0.95	12/30/24 19:22	8270C		SK
<i>Surrogate: 2-Fluorobiphenyl</i>			31.8 %	7.39-192		12/30/24 19:22	8270C		SK
<i>Surrogate: Nitrobenzene-d5</i>			49.9 %	5.17-184		12/30/24 19:22	8270C		SK
<i>Surrogate: Terphenyl-d14</i>			44.6 %	27.5-139		12/30/24 19:22	8270C		SK

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Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B243728 - Dissolved ICPMS										
Blank (B243728-BLK1)										
Prepared & Analyzed: 12/19/24										
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
LCS (B243728-BS1)										
Prepared & Analyzed: 12/19/24										
Lead	0.0480	0.0005	mg/L	0.0500		96.0	85-115			
Manganese	0.0493	0.0005	mg/L	0.0500		98.6	85-115			
LCS Dup (B243728-BSD1)										
Prepared & Analyzed: 12/19/24										
Lead	0.0479	0.0005	mg/L	0.0500		95.7	85-115	0.246	20	
Manganese	0.0495	0.0005	mg/L	0.0500		98.9	85-115	0.297	20	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4121901 - Volatiles										
Blank (4121901-BLK1)										
Prepared & Analyzed: 12/19/24										
Surrogate: 4-Bromofluorobenzene	0.0246		mg/L	0.0250		98.2	76.4-114			
Benzene	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.0261		mg/L	0.0250		104	82.4-141			
Surrogate: Toluene-d8	0.0259		mg/L	0.0250		104	87.1-110			
LCS (4121901-BS1)										
Prepared & Analyzed: 12/19/24										
Surrogate: 4-Bromofluorobenzene	0.0252		mg/L	0.0250		101	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200		100	85.9-114			
Surrogate: Dibromofluoromethane	0.0247		mg/L	0.0250		98.9	82.4-141			
Surrogate: Toluene-d8	0.0259		mg/L	0.0250		103	87.1-110			
LCS Dup (4121901-BSD1)										
Prepared & Analyzed: 12/19/24										
Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		100	76.4-114			
Benzene	0.020	0.0005	mg/L	0.0200		101	85.9-114	0.447	4.14	
Surrogate: Dibromofluoromethane	0.0251		mg/L	0.0250		101	82.4-141			
Surrogate: Toluene-d8	0.0255		mg/L	0.0250		102	87.1-110			

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848 E 2nd Ave
Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4122017 - SW846-3510

Blank (4122017-BLK1)

Prepared: 12/20/24 Analyzed: 12/30/24

1-Methylnaphthalene	ND	0.0005	mg/L							
Surrogate: 2-Fluorobiphenyl	0.0348		mg/L	0.0500		69.5	7.39-192			
2-Methylnaphthalene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
Surrogate: Nitrobenzene-d5	0.0494		mg/L	0.0500		98.9	5.17-184			
Surrogate: Terphenyl-d14	0.0429		mg/L	0.0500		85.7	27.5-139			

LCS (4122017-BS1)

Prepared: 12/20/24 Analyzed: 12/30/24

1-Methylnaphthalene	0.008	0.0005	mg/L	0.0100		82.6	47.6-126			
Surrogate: 2-Fluorobiphenyl	0.0309		mg/L	0.0500		61.9	7.39-192			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		70.5	48.1-126			
Naphthalene	0.008	0.001	mg/L	0.0100		81.4	46.9-122			
Surrogate: Nitrobenzene-d5	0.0435		mg/L	0.0500		87.0	5.17-184			
Surrogate: Terphenyl-d14	0.0402		mg/L	0.0500		80.4	27.5-139			

LCS Dup (4122017-BSD1)

Prepared: 12/20/24 Analyzed: 12/30/24

1-Methylnaphthalene	0.007	0.0005	mg/L	0.0100		72.9	47.6-126	12.5	4.3	QR-04
Surrogate: 2-Fluorobiphenyl	0.0340		mg/L	0.0500		68.0	7.39-192			
2-Methylnaphthalene	0.007	0.001	mg/L	0.0100		74.2	48.1-126	5.11	4.47	QR-04
Naphthalene	0.009	0.001	mg/L	0.0100		89.3	46.9-122	9.26	3.46	QR-04
Surrogate: Nitrobenzene-d5	0.0534		mg/L	0.0500		107	5.17-184			
Surrogate: Terphenyl-d14	0.0388		mg/L	0.0500		77.7	27.5-139			

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Veronica Wells, Project Manager

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Durango CO, 81301

Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Project: 07A2015003- Giant Bloomfield Refinery
Project Name / Number: 07A2015003- Giant Bloomfield Refinery
Project Manager: Wes Weichert

Reported:
01/02/25 13:33

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
2412160-01	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412160-02	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412160-03	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412160-04	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412160-05	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
2412160-06	Lead Dissolved by ICPMS	Lead	IS1	Sample was analyzed at dilution due to internal standard recoveries not meeting the method acceptance criteria.
4122017-BSD1	PAH 8270C	1-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4122017-BSD1	PAH 8270C	2-Methylnaphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
4122017-BSD1	PAH 8270C	Naphthalene	QR-04	The RPD for the BS/BSD was outside of historical limits.
2412160-01	PAH 8270C	Terphenyl-dl4	S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
2412160-02	PAH 8270C	Terphenyl-dl4	S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
2412160-05	PAH 8270C	Terphenyl-dl4	S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

Green Analytical Laboratories

Veronica Wells, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



75 Suttle Street
Durango, CO 81303
(970) 247-4220

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006, R 8.0

Note: Write-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:		Ensolum		Bill to (if different):		ANALYSIS REQUEST																													
Address:		848 E 2nd Ave																																	
City:		Durango		State: CO Zip: 81301																															
Phone #:		970-903-1607		Contact Person:		Wes Welchert																													
Email Report to:		wwelchert@ensolum.com		P.O. #:																															
Project Name(optional):		07A2015003- Giant Bloomfield Refinery		Rush? <input type="checkbox"/> Y <input type="checkbox"/> N TAT Needed? <input type="checkbox"/>																															
Sampler Name (Print):				Matrix (check one)		# of containers																													
Lab I.D. 2412-160 Lab Use Only		Sample Name or Location		Collected		Groundwater																													
				Date		Time		SURFACE WATER																											
1		GBR-21D		12/16/24		12:10		WASTEWATER		PRODUCED WATER		DRINKING WATER		SOIL		OTHER:		No preservation		Nitric Acid		Hydrochloric Acid		Sulfuric Acid		Sodium Hydroxide		OTHER:		BTEX 8260 - Benzene only		PAH 8270 - Naphthalene, 1-methylnaphthalene, 2-methylnaphthalene		Dissolved Pb, Mn	
2		GBR-31		12/16/24		13:05												2		4															
3		GRN-11		12/16/24		11:40																													
4		GBR-13		12/16/24		10:45																													
5		GRN-3		12/16/24		10:00																													
6		GBR-39		12/16/24		13:45																													
7																																			
8																																			
9																																			
10																																			

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12/16/24	Received By:	Date: 12/16/24	ADDITIONAL REMARKS:
Relinquished By:	Date: 15:10	Received By:	Date: 15:10	* CC: npattala@ensolum.com tdembrowski@ensolum.com
Relinquished By:	Date:	Received By:	Date:	* metals are to be lab filtered
Relinquished By:	Date:	Received By:	Date:	Temperature at receipt: 138 °C
Relinquished By:	Date:	Received By:	Date:	Checked by: CDZ
Relinquished By:	Date:	Received By:	Date:	On Ice? N
Relinquished By:	Date:	Received By:	Date:	Therm. used: 145

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.



SAMPLE CONDITION RECEIPT FORM

Date/Initials of person examining contents: 12.16.24
CDW

Labeled by initials: _____
(if different than above)

Client Name: FensdunWork Order # 2412-160Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 3.8 °C Correction Factor: 0 °C Final Temp: 3.8 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC: *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested: *3 day TAT or less requires supervisor approval	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Approved By:
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. <u>P-25</u>
Field Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11.
Matrix:	<input checked="" type="checkbox"/> WT <input type="checkbox"/> SL <input type="checkbox"/> OT	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 474083

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 474083
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
joel.stone	None	6/18/2025