



August 28, 2023

**New Mexico Oil Conservation Division**

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

**Re: Remediation Work Plan  
King Tut Federal CTB  
Incident Number NAPP2319132381  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared the following *Remediation Work Plan (RWP)* to document assessment and soil sampling activities completed to date and propose additional remediation activities to address impacted soil at the King Tut Federal CTB (Site), resulting from a release of produced water into the surrounding pasture. The following *RWP* proposes excavation of impacted soil in the top 4 feet of non-oil and gas production areas.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit D, Section 30, Township 24 South, Range 32 East, in Lea County, New Mexico (32.195°, -103.7194°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On June 21, 2023, internal corrosion of a flex line resulted in the release of approximately 158.54 barrels (bbls) of produced water into the surrounding pasture. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 70 bbls of produced water were recovered. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on June 21, 2023, and submitted a Release Notification Form C-141 (Form C-141) on July 10, 2023. The release was assigned Incident Number NAPP2319132381.

**SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the closest permitted groundwater well data. The closest groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NNOSE) boring C-04665 POD 1, located approximately 0.4 miles east of the Site. The boring was drilled in September 2022 to a total depth of 120 feet bgs, and no groundwater was encountered. All wells used for depth to groundwater determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

COG Operating, LLC  
Remediation Work Plan  
King Tut Federal CTB

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 16,100 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

## SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On July 3, 2023, Ensolum personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven assessment soil samples (SS01 through SS07) were collected within and around the release extent at a depth of approximately 0.5 feet bgs. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The release extent and assessment soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analyses of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for assessment soil samples SS01 and SS02, collected within the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria; however, chloride concentrations exceeded the reclamation requirement. Laboratory analytical results for assessment soil sample SS03, collected within the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement. Laboratory analytical results for soil samples SS04 through SS07, collected around the release extent, indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement, and confirmed the lateral extent of the release. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the assessment soil samples, additional delineation activities were warranted.

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## DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On July 28, 2023, delineation activities were conducted at the Site to assess the vertical extent of the release. Boreholes BH01 through BH07 were advanced via backhoe and hydrovac within the release extent. The delineation boreholes were advanced to depths ranging from 4 feet to 10 feet bgs. Soil from the boreholes was field screened at 1-foot intervals for VOCs and chloride using the same procedures described above. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix C. Discrete delineation soil samples were collected from each borehole at depths ranging from 1-foot to 10 feet bgs. The delineation soil samples were collected, handled, and analyzed following the same procedures as described above. The delineation soil sample locations are depicted on Figure 3.

Field screening results and/or laboratory analytical results for the delineation soil samples collected from boreholes BH01 through BH05 and BH07 indicated that chloride impacted soil is present in the top 4 feet of the off-pad release area. Laboratory analytical results for the delineation soil samples collected from borehole BH06 indicated all COC concentrations were compliant with the Site Closure Criteria and reclamation requirement. All delineation soil samples collected at depths greater than 4 feet bgs were compliant with the Site Closure Criteria. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix D.

## PROPOSED REMEDIAL ACTIONS

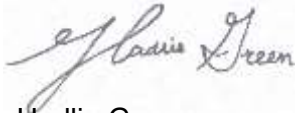
- Chloride impacted soil was identified in the top 4 feet of the off pad release area as indicated by field screening results and/or laboratory analytical results for assessment soil samples SS01 and SS02 and delineation samples from boreholes BH01 through BH05 and BH07. As a result, COG proposes excavation of chloride impacted soil from the top 4 feet. Excavation will proceed laterally until sidewall samples indicate chloride concentrations are compliant with the reclamation requirements. The Site Closure Criteria will be applied to floor samples collected at depths of 4 feet bgs or greater.
- Due to the estimated 5,765 square foot size of the excavation, COG requests a variance for frequency of excavation confirmation samples. COG proposes the frequency of confirmation sampling for the excavation floor to be decreased from every 200 square feet (approximately 29 samples) to every 400 square feet (approximately 14 samples). Each 5-point composite floor sample will represent a 400 square foot area. Sidewall samples will be collected at a frequency of every 200 square feet.
- The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation samples will be analyzed for chloride only since the assessment and delineation samples did not contain BTEX or TPH exceeding the Site Closure Criteria or reclamation requirements.
- An estimated 1,110 cubic yards of impacted soil is anticipated to be excavated. The excavated soil will be transferred to a New Mexico approved disposal facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions. The disturbed pasture will be re-seeded with an approved BLM seed mixture.

COG will complete the excavation activities within 90 days of the date of approval of this *RWP* by the NMOCD. COG believes the scope of work described above will meet requirements set forth in 19.15.29.13 NMAC and is protective of human health, the environment, and groundwater. As such, COG respectfully requests approval of this *RWP* from NMOCD. NMOCD notifications are included in Appendix E and the Form C-141 is included in Appendix F.

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If you have any questions or comments, please contact Ms. Hadlie Green at (432) 557-8895 or hgreen@ensolum.com.

Sincerely,  
**Ensolum, LLC**



Hadlie Green  
Project Geologist



Daniel R Moir, PG  
Senior Managing Geologist

cc: Jacob Laird, COG Operating, LLC  
Bureau of Land Management

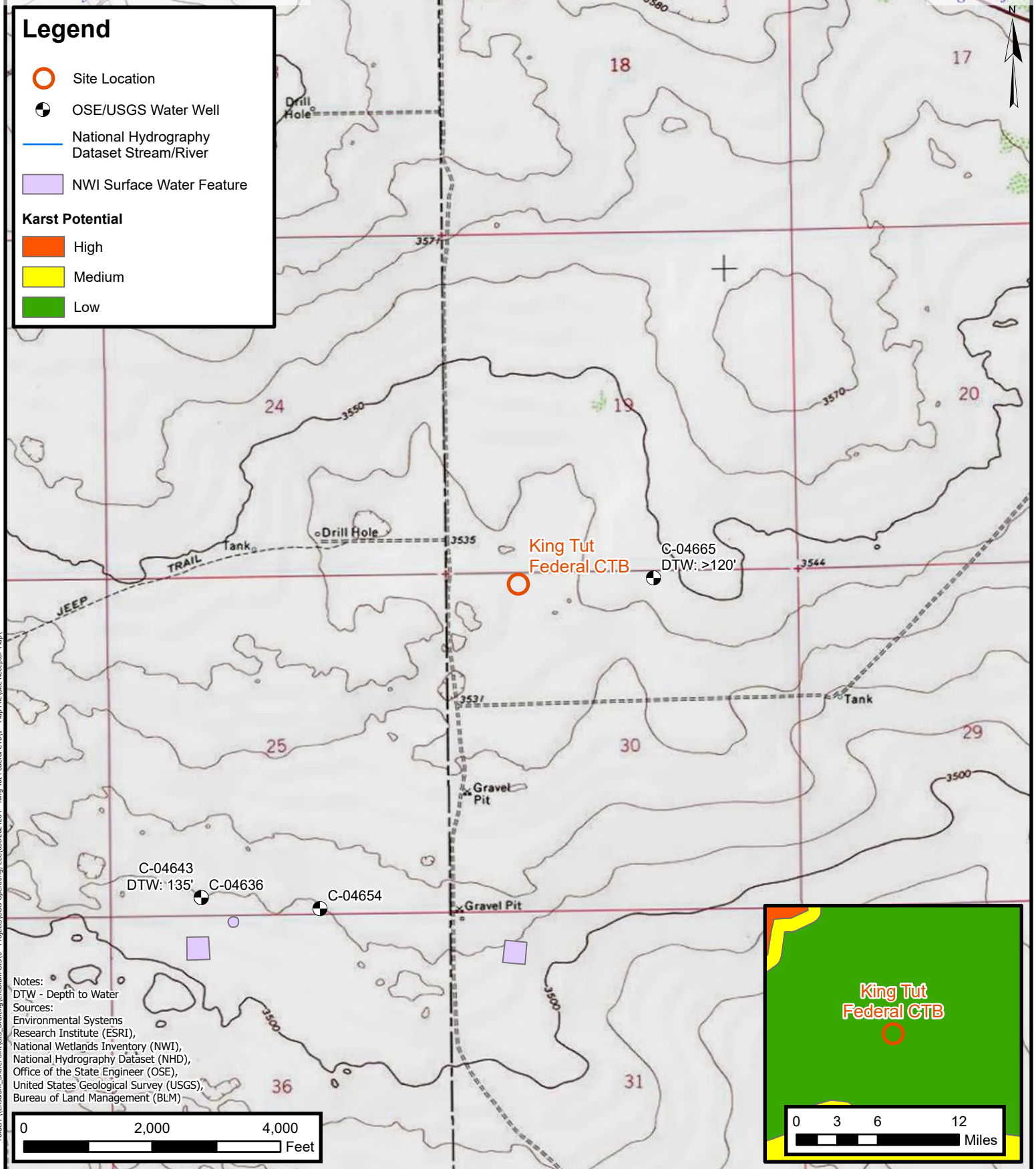
Appendices:

Figure 1	Site Receptor Map
Figure 2	Assessment Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic / Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications
Appendix F	Form C-141



FIGURES





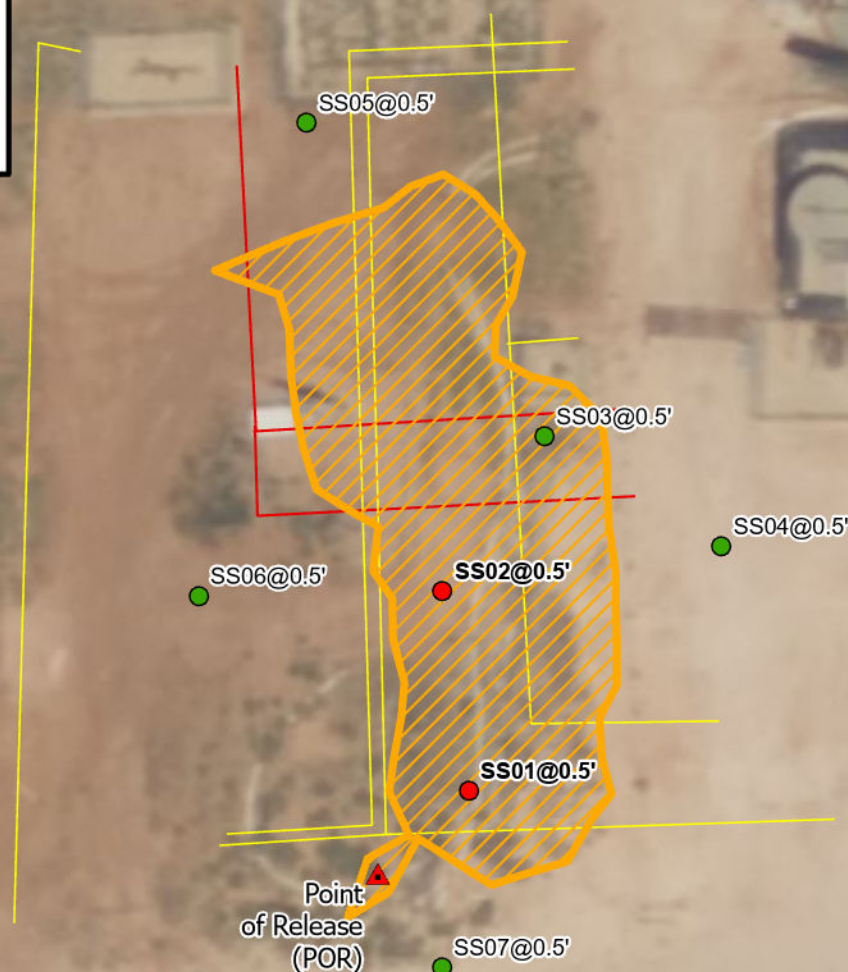
**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants

**Site Receptor Map**  
COG Operating, LLC  
King Tut Federal CTB  
Incident Number: NAPP2319132381  
Unit D, Sec 30, T24S, R32E  
Lea County, New Mexico

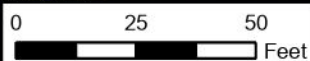
**FIGURE**  
**1**

## Legend

- Assessment Soil Sample in Compliance with Closure Criteria
- Assessment Soil Sample with Concentrations Exceeding Closure Criteria
- ▲ Point of Release (POR)
- Electric Utility Line
- Gas Pipeline
- ▨ Release Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria



Sources: Environmental Systems Research Institute (ESRI)

## Assessment Soil Sample Locations

COG Operating, LLC  
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 Unit D, Sec 30, T24S, R32E  
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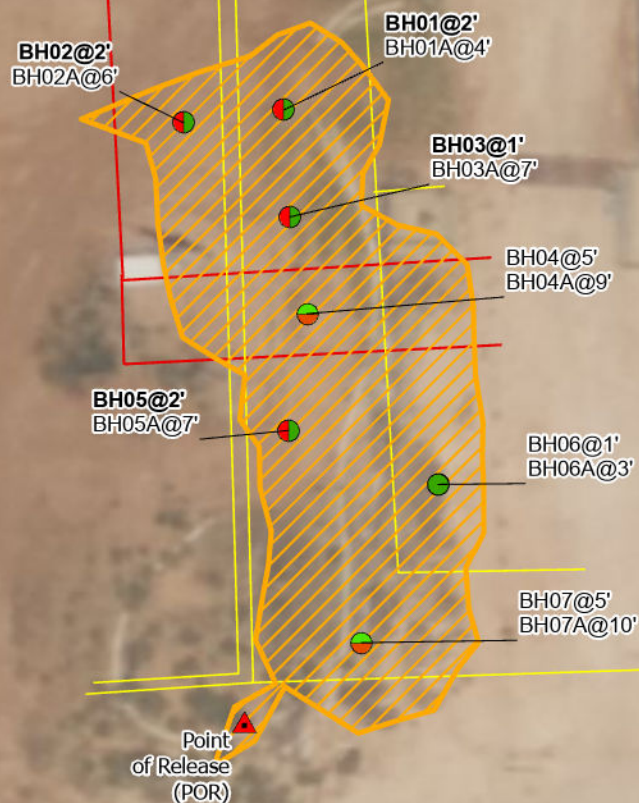
FIGURE  
2





## Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Borehole with delineation soil samples exceeding Reclamation Requirements in the top four feet
- ▲ Point of Release
- Electric Utility Line
- Gas Pipeline
- Release Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria

0 25 50  
 Feet

Sources: Environmental Systems Research Institute (ESRI)



## Delineation Soil Sample Locations

COG Operating, LLC  
 King Tut Federal CTB  
 Incident Number: NAPP2319132381  
 Unit D, Sec 30, T24S, R32E  
 Lea County, New Mexico

FIGURE

3





TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 King Tut Federal CTB  
 COG Operating, LLC  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Assessment Soil Samples</b>										
SS01*	07/03/2023	0.5	<0.00202	<0.00403	<50.2	83.0	<50.2	83.0	83.0	<b>8,390</b>
SS02*	07/03/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<b>15,300</b>
SS03*	07/03/2023	0.5	<0.00201	<0.00402	<50.2	<50.2	<50.2	<50.2	<50.2	412
SS04*	07/03/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	88.7
SS05*	07/03/2023	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	44.9
SS06*	07/03/2023	0.5	<0.00198	<0.00396	<50.3	<50.3	<50.3	<50.3	<50.3	108
SS07*	07/03/2023	0.5	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	49.1
<b>Delineation Soil Samples</b>										
BH01*	07/28/2023	2	<0.00198	<0.00397	<50.4	<50.4	<50.4	<50.4	<50.4	<b>9,430</b>
BH01A	07/28/2023	4	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	369
BH02*	07/28/2023	2	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	<b>13,600</b>
BH02A	07/28/2023	6	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	369
BH03*	07/28/2023	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	<b>9,050</b>
BH03A	07/28/2023	7	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	589
BH04	07/28/2023	5	<0.00198	<0.00397	<49.6	<49.6	<49.6	<49.6	<49.6	3,690
BH04A	07/28/2023	9	<0.00201	<0.00402	<50.2	<50.2	<50.2	<50.2	<50.2	6,820



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Windward Fed 2H  
 COG Operating, LLC  
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
BH05*	07/28/2023	2	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	<b>11,400</b>
BH05A	07/28/2023	7	<0.00200	<0.00400	<50.4	<50.4	<50.4	<50.4	<50.4	342
BH06*	07/28/2023	1	<0.00201	<0.00402	<50.2	<50.2	<50.2	<50.2	<50.2	434
BH06A*	07/28/2023	3	<0.00200	<0.00399	<50.4	<50.4	<50.4	<50.4	<50.4	143
BH07	07/28/2023	5	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	13,000
BH07A	07/28/2023	10	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	5,890

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

\* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.



## APPENDIX A

### Referenced Well Records

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) C-04665 POD 1		WELL TAG ID NO.		OSE FILE NO(S). C-04665		
	WELL OWNER NAME(S) COG OPERATING LLC				PHONE (OPTIONAL) 575-988-2043		
	WELL OWNER MAILING ADDRESS 2208 W MAIN ST				CITY STATE ZIP ARTESIA NM 88210		
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	MINUTES 32	SECONDS 11 42.72 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84		
		LONGITUDE	-103	42 45.30 W			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE KING TUT FEDERAL 001H							

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1184		NAME OF LICENSED DRILLER RUSSELL SOUTHERLAND		NAME OF WELL DRILLING COMPANY WEST TEXAS WATER WELL SERVICE			
	DRILLING STARTED 9/15/2022	DRILLING ENDED 09/15/2022	DEPTH OF COMPLETED WELL (FT) 120	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
				NO CASING IN HOLE				

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
				N/A		

USE DTI SEP 26 2022 PM 3:28

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	C-04665	POD NO.	1	TRN NO.	732879
LOCATION	24S. 32E. 30 112	WELL TAG ID NO.		PAGE 1 OF 2	

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)	
	FROM	TO					
	0	1		CALICHIE PAD	Y    ✓ N		
	1	3		SANDY TOPSOIL	Y    ✓ N		
	3	25		CALICHIE	Y    ✓ N		
	25	27		RED SAND	Y    ✓ N		
	27	120		RED SANDY CLAY	Y    ✓ N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
					Y    N		
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input checked="" type="checkbox"/> OTHER – SPECIFY: DRY HOLE				TOTAL ESTIMATED WELL YIELD (gpm):                      0.00		
	5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
		MISCELLANEOUS INFORMATION:					
<div style="text-align: right;">05E DIT SEP 26 2022 PM3:28</div>							
6. SIGNATURE	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: RUSSELL SOUTHERLAND						
	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.						
_____ SIGNATURE OF DRILLER / PRINT SIGNEE NAME				_____ DATE			

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 04/30/2019)	
FILE NO. C-04665	POD NO. 1	TRN NO. 732879	
LOCATION 24S 32E 30 112	WELL TAG ID NO.		PAGE 2 OF 2

Mike A. Hamman, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER

Trn Nbr: 732879  
File Nbr: C 04665  
Well File Nbr: C 04665

Oct. 04, 2022

KALEI JENNINGS  
ENSOLUM  
601 N MARIENFIELD ST SUITE 400  
MIDLAND, TX 79701

Greetings:

The above numbered permit was issued in your name on 08/26/2022.

The Well Record was received in this office on 09/26/2022, stating that it had been completed on 09/15/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 08/26/2023.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in cursive script that reads "Vanessa Clements".

Vanessa Clements  
(575) 622-6521

drywell



Lea County, New Mexico  
Latitude 32°10'21.6", Longitude 103°40'18.9" NAD83  
Land-surface elevation 3,499.00 feet above NGVD29  
The depth of the well is 367 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

Date	Time	<sup>?</sup> Water-level date-time accuracy	<sup>?</sup> Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	<sup>?</sup> Status	<sup>?</sup> Method of measurement	<sup>?</sup> Measuring agency	<sup>?</sup> Source of measurement	<sup>?</sup> Water-level approval status
2013						.					
2013-01-17	16:30 UTC	m	62610		3209.31	NGVD29	1	S	USGS	S	A
2013-01-17	16:30 UTC	m	62611		3211.03	NAVD88	1	S	USGS	S	A
2013-01-17	16:30 UTC	m	72019	289.69			1	S	USGS	S	A





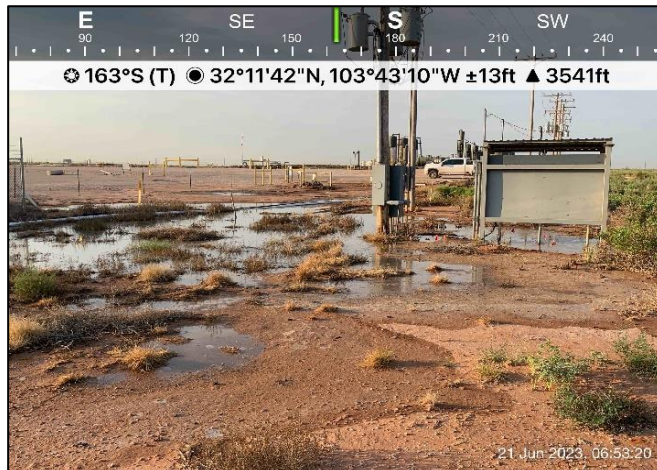
## APPENDIX B

### Photographic Log

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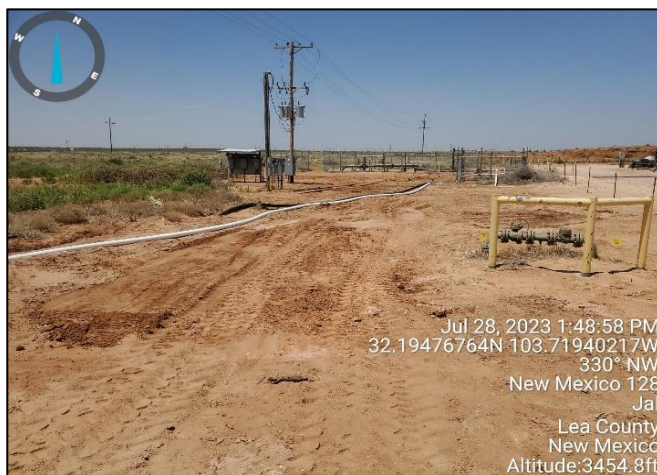
**Photographic Log**  
 COG Operating, LLC  
 King Tut Federal CTB  
 Incident Number NAPP2319132381



Photograph: 1 Date: 6/21/2023  
 Description: Soil staining in release footprint  
 View: South



Photograph: 2 Date: 7/3/2023  
 Description: Initial assessment activities  
 View: Northeast



Photograph: 3 Date: 7/28/2023  
 Description: Delineation activities  
 View: Northwest




Photograph: 4 Date: 7/28/2023  
 Description: Delineation activities  
 View: Northwest




## APPENDIX C


### Lithologic Soil Sampling Logs


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								Sample Name: BH01	Date: 7/28/2023
								Site Name: King Tut Federal CTB	
								Incident Number: NAPP2319132381	
								Job Number: 03D2024204	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Vac truck
Coordinates: 32.195110,-103.719486								Hole Diameter:	Total Depth: 4'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0			
Damp	2,279	0.0	N			1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor	
Damp	12,202	0.0	N	BH01B	2	2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	9,676	0.0	N			3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	156	0.0	N	BH01D	4	4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor	
								TD 4 feet bgs	
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			




								Sample Name: BH02		Date: 7/28/2023	
								Site Name: Windward Fed 2H/King Tut Fed CTB			
								Incident Number: NAPP2319132381			
								Job Number: 03D2024204			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten		Method: Vac truck	
Coordinates: 32.195103,-103.719553								Hole Diameter:		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
						0					
Damp	11,110	0.0	N			1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor			
Damp	16,430	0.0	N	BH02B	2	2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor			
Damp	16,430	0.0	N			3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor			
Damp	6,748	0.0	N			4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor			
Damp	1293	0.0	N			5	SP-SM	SAA (same as above)			
Damp	229	0.0	N	BH02F	6	6	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor TD at 6 feet bgs			
						7					
						8					
						9					
						10					
						11					
						12					


								Sample Name: BH03	Date: 7/28/2023
								Site Name: Windward Fed 2H/King Tut Fed CTB	
								Incident Number: NAPP2319132381	
								Job Number: 03D2024204	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Vac truck
Coordinates: 32.195048,-103.719483								Hole Diameter:	Total Depth: 4'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included. ND - Non Detect									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0			
Damp	13,104	0.0	N	BH03A	1	1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor	
Damp	9,200	0.0	N			2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	6,220	0.0	N			3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	806	0.0	N			4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	1,030	0.0	N			5	SP-SM	SAA (same as above)	
Damp	1,204	0.0	N			6	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	397	0.0	N			7	SP-SM	Sand: reddish brown, medim to fine grain, poorly graded with silt, no stain, no odor	
Damp	ND	0.0	N	BH03H	8	8	SP-SM	Sand: brown, medim to fine grain, poorly graded with silt/clay, slightly cohesive, no stain, no odor TD at 8 feet bgs	
						9			
						10			
						11			
						12			

								Sample Name: BH04	Date: 7/28/2023
								Site Name: Windward Fed 2H/King Tut Fed CTB	
								Incident Number: NAPP2319132381	
								Job Number: 03D2024204	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Vac truck
Coordinates: 32.194993,-103.719471								Hole Diameter:	Total Depth: 4'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included. ND - Non Detect									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0			
Damp	3,640	0.0	N			1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor	
Damp	5,040	0.0	N			2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	3,516	0.0	N			3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	3,516	0.0	N			4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	5,728	0.0	N	BH04E	5	5	SP-SM	SAA (same as above)	
Damp	1,125	0.0	N			6	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	1,993	0.0	N			7	SP-SM	Sand: reddish brown, medim to fine grain, poorly graded with silt, no stain, no odor	
Damp	3,920	0.0	N			8	SP-SM	Sand: brown, medim to fine grain, poorly graded with silt/clay, slightly cohesive, no stain, no odor	
Damp	9,548	0.0	N	BH04I	9	9	SP-SM	SAA, some white caliche	
						10		TD (refusal) at 9 feet bgs	
						11			
						12			

								Sample Name: BH05	Date: 7/28/2023
								Site Name: Windward Fed 2H/King Tut Fed CTB	
								Incident Number: NAPP2319132381	
								Job Number: 03D2024204	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Backhoe
Coordinates: 32.194926,-103.719485								Hole Diameter:	Total Depth: 4'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included. ND - Non Detect									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0			
Damp	13,322	0.0	N			1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor	
Damp	14,604	0.0	N	BH05B	2	2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	6,770	0.0	N			3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	6,210	0.0	N			4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	3,808	0.0	N			5	SP-SM	SAA (same as above)	
Damp	2,122	0.0	N			6	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	229	0.0	N	BH05G	7	7	SP-SM	Sand: reddish brown, medim to fine grain, poorly graded with silt, no stain, no odor	
Damp	1,724	0.0	N			8	SP-SM	Sand/Caliche: light tan, pinkish tan, fine grain, poorly graded with silt/clay, no stain, no odor	
						9		TD at 8 feet bgs	
						10			
						11			
						12			



								Sample Name: BH06	Date: 7/28/2023
								Site Name: Windward Fed 2H/King Tut Fed CTB	
								Incident Number: NAPP2319132381	
								Job Number: 03D2024204	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Backhoe
Coordinates: 32.194894,-103.719385								Hole Diameter:	Total Depth: 4'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included. ND - Non Detect									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0			
Damp	1,114	0.0	N	BH06A	1	1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor	
Damp	739	0.0	N			2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	ND	0.0	N	BH06C	3	3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	ND	0.0	N			4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor TD at 4 feet bgs	
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

								Sample Name: BH07	Date: 7/28/2023
								Site Name: Windward Fed 2H/King Tut Fed CTB	
								Incident Number: NAPP2319132381	
								Job Number: 03D2024204	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Peter Van Patten	Method: Backhoe
Coordinates: 32.194804,-103.719437								Hole Diameter:	Total Depth: 4'
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factor included. ND - Non Detect									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
						0			
Damp	13,440	0.0	N			1	SP-SM	Sand: brown, medim to fine grain, poorly graded, no stain, no odor	
Damp	13,440	0.0	N			2	SP-SM	Sand: brown, reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	10,617	0.0	N			3	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	9,240	0.0	N			4	SP-SM	Sand: orange brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	16,486	0.0	N	BH07E	5	5	SP-SM	SAA (same as above)	
Damp	16,486	0.0	N			6	SP-SM	Sand: reddish brown, medium to fine grain, poorly graded, no stain, no odor	
Damp	13,440	0.0	N			7	SP-SM	Sand: reddish brown, medim to fine grain, poorly graded with silt, no stain, no odor	
Damp	16,486	0.0	N			8	SP-SM	Sand: brown, medim to fine grain, poorly graded with silt/clay, slightly cohesive, no stain, no odor	
Damp	7,285	0.0	N			9	SP-SM	SAA, some white caliche	
Damp	7,884	0.0	N	BH07J	10	10	SP-SM	SAA	
								TD (refusal) at 10 feet bgs	
						11			
						12			



## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Hadlie Green  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 7/21/2023 1:09:28 PM Revision 1

## JOB DESCRIPTION

Windward Fed 2H & King Tut Fed CTB  
SDG NUMBER 03D2024204 32.1943,-103.7194

## JOB NUMBER

890-4894-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Revision 1



Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Laboratory Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

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## Definitions/Glossary

Client: Ensolum

Job ID: 890-4894-1

Project/Site: Windward Fed 2H &amp; King Tut Fed CTB

SDG: 03D2024204 32.1943,-103.7194

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## 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 Carlsbad

## Case Narrative

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

**Job ID: 890-4894-1**

**Laboratory: Eurofins Carlsbad**

### Narrative

#### Job Narrative 890-4894-1

### REVISION

The report being provided is a revision of the original report sent on 7/18/2023. The report (revision 1) is being revised due to Per client email, added chlorides to job.

### Receipt

The samples were received on 7/3/2023 10:15 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 4.0°C

### Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4894-1), SS02 (890-4894-2) and SS03 (890-4894-3).

### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-57090/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-57060 and 880-57090 and analytical batch 880-57044 recovered outside control limits for the following analytes: Toluene. Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-57044 recovered below the lower control limit for Benzene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-57044/20).

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

### GC Semi VOA

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-57168 and analytical batch 880-57224 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (890-4901-A-7-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: SS03 (890-4894-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Spike compounds were inadvertently omitted during the extraction process for the matrix spike (MS); therefore, matrix spike recoveries are unavailable for preparation batch 880-57168 and analytical batch 880-57224. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-57168 and analytical batch 880-57224 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

### HPLC/IC

Case Narrative

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Job ID: 890-4894-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

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  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Client Sample ID: SS01

Lab Sample ID: 890-4894-1

Date Collected: 07/03/23 08:17

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/06/23 12:35	07/07/23 07:30	1
Toluene	<0.00202	U *	0.00202	mg/Kg		07/06/23 12:35	07/07/23 07:30	1
Ethylbenzene	<0.00202	U *	0.00202	mg/Kg		07/06/23 12:35	07/07/23 07:30	1
m-Xylene & p-Xylene	<0.00403	U * *	0.00403	mg/Kg		07/06/23 12:35	07/07/23 07:30	1
o-Xylene	<0.00202	U * *	0.00202	mg/Kg		07/06/23 12:35	07/07/23 07:30	1
Xylenes, Total	<0.00403	U * *	0.00403	mg/Kg		07/06/23 12:35	07/07/23 07:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	07/06/23 12:35	07/07/23 07:30	1
1,4-Difluorobenzene (Surr)	112		70 - 130	07/06/23 12:35	07/07/23 07:30	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			07/07/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	83.0		50.2	mg/Kg			07/10/23 12:23	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		07/07/23 12:45	07/09/23 15:44	1
Diesel Range Organics (Over C10-C28)	83.0	*1	50.2	mg/Kg		07/07/23 12:45	07/09/23 15:44	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/07/23 12:45	07/09/23 15:44	1
Total TPH	83.0		50.2	mg/Kg		07/07/23 12:45	07/09/23 15:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	07/07/23 12:45	07/09/23 15:44	1
o-Terphenyl	110		70 - 130	07/07/23 12:45	07/09/23 15:44	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8390		49.5	mg/Kg			07/21/23 03:27	10

Client Sample ID: SS02

Lab Sample ID: 890-4894-2

Date Collected: 07/03/23 08:18

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/06/23 12:35	07/07/23 07:51	1
Toluene	<0.00200	U *	0.00200	mg/Kg		07/06/23 12:35	07/07/23 07:51	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		07/06/23 12:35	07/07/23 07:51	1
m-Xylene & p-Xylene	<0.00401	U * *	0.00401	mg/Kg		07/06/23 12:35	07/07/23 07:51	1
o-Xylene	<0.00200	U * *	0.00200	mg/Kg		07/06/23 12:35	07/07/23 07:51	1
Xylenes, Total	<0.00401	U * *	0.00401	mg/Kg		07/06/23 12:35	07/07/23 07:51	1

Eurofins Carlsbad



## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Client Sample ID: SS02

Lab Sample ID: 890-4894-2

Date Collected: 07/03/23 08:18

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	07/06/23 12:35	07/07/23 07:51	1
1,4-Difluorobenzene (Surr)	116		70 - 130	07/06/23 12:35	07/07/23 07:51	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/07/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/10/23 12:23	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 16:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		07/07/23 12:45	07/09/23 16:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 16:06	1
Total TPH	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 16:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	07/07/23 12:45	07/09/23 16:06	1
o-Terphenyl	95		70 - 130	07/07/23 12:45	07/09/23 16:06	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15300		99.4	mg/Kg			07/21/23 03:32	20

Client Sample ID: SS03

Lab Sample ID: 890-4894-3

Date Collected: 07/03/23 08:19

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/06/23 12:35	07/07/23 08:12	1
Toluene	<0.00201	U **	0.00201	mg/Kg		07/06/23 12:35	07/07/23 08:12	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		07/06/23 12:35	07/07/23 08:12	1
m-Xylene & p-Xylene	<0.00402	U ** *1	0.00402	mg/Kg		07/06/23 12:35	07/07/23 08:12	1
o-Xylene	<0.00201	U ** *1	0.00201	mg/Kg		07/06/23 12:35	07/07/23 08:12	1
Xylenes, Total	<0.00402	U ** *1	0.00402	mg/Kg		07/06/23 12:35	07/07/23 08:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	07/06/23 12:35	07/07/23 08:12	1
1,4-Difluorobenzene (Surr)	110		70 - 130	07/06/23 12:35	07/07/23 08:12	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/07/23 10:20	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Client Sample ID: SS03

Lab Sample ID: 890-4894-3

Date Collected: 07/03/23 08:19

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			07/10/23 12:23	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		07/07/23 12:45	07/09/23 16:27	1
Diesel Range Organics (Over C10-C28)	<50.2	U *1	50.2	mg/Kg		07/07/23 12:45	07/09/23 16:27	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		07/07/23 12:45	07/09/23 16:27	1
Total TPH	<50.2	U	50.2	mg/Kg		07/07/23 12:45	07/09/23 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	07/07/23 12:45	07/09/23 16:27	1
o-Terphenyl	114		70 - 130	07/07/23 12:45	07/09/23 16:27	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	412		5.04	mg/Kg			07/21/23 03:37	1

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# Surrogate Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-30380-A-1-K MS	Matrix Spike	114	109
880-30380-A-1-L MSD	Matrix Spike Duplicate	106	105
890-4894-1	SS01	110	112
890-4894-2	SS02	109	116
890-4894-3	SS03	110	110
LCS 880-57090/1-A	Lab Control Sample	103	105
LCSD 880-57090/2-A	Lab Control Sample Dup	143 S1+	108
MB 880-57060/5-A	Method Blank	84	104
MB 880-57090/5-A	Method Blank	87	102
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4894-1	SS01	128	110
890-4894-2	SS02	110	95
890-4894-3	SS03	132 S1+	114
890-4901-A-7-D MS	Matrix Spike	107	93
890-4901-A-7-E MSD	Matrix Spike Duplicate	136 S1+	109
LCS 880-57168/2-A	Lab Control Sample	87	80
LCSD 880-57168/3-A	Lab Control Sample Dup	108	98
MB 880-57168/1-A	Method Blank	151 S1+	131 S1+
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum

Job ID: 890-4894-1

Project/Site: Windward Fed 2H &amp; King Tut Fed CTB

SDG: 03D2024204 32.1943,-103.7194

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

Lab Sample ID: MB 880-57060/5-A

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57060

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/06/23 09:37	07/06/23 14:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/06/23 09:37	07/06/23 14:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/06/23 09:37	07/06/23 14:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/06/23 09:37	07/06/23 14:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/06/23 09:37	07/06/23 14:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/06/23 09:37	07/06/23 14:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	07/06/23 09:37	07/06/23 14:11	1
1,4-Difluorobenzene (Surr)	104		70 - 130	07/06/23 09:37	07/06/23 14:11	1

Lab Sample ID: MB 880-57090/5-A

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57090

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/06/23 12:35	07/07/23 00:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/06/23 12:35	07/07/23 00:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/06/23 12:35	07/07/23 00:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/06/23 12:35	07/07/23 00:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/06/23 12:35	07/07/23 00:55	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/06/23 12:35	07/07/23 00:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	07/06/23 12:35	07/07/23 00:55	1
1,4-Difluorobenzene (Surr)	102		70 - 130	07/06/23 12:35	07/07/23 00:55	1

Lab Sample ID: LCS 880-57090/1-A

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1116		mg/Kg		112	70 - 130
Toluene	0.100	0.1212		mg/Kg		121	70 - 130
Ethylbenzene	0.100	0.1080		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2271		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1102		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-57090/2-A

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57090

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1069		mg/Kg		107	70 - 130	4	35

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## QC Sample Results

Client: Ensolum

Job ID: 890-4894-1

Project/Site: Windward Fed 2H &amp; King Tut Fed CTB

SDG: 03D2024204 32.1943,-103.7194

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

Lab Sample ID: LCSD 880-57090/2-A

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57090

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1356	*+	mg/Kg		136	70 - 130	11	35
Ethylbenzene	0.100	0.1434	*+	mg/Kg		143	70 - 130	28	35
m-Xylene & p-Xylene	0.200	0.3302	*+ *1	mg/Kg		165	70 - 130	37	35
o-Xylene	0.100	0.1605	*+ *1	mg/Kg		161	70 - 130	37	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-30380-A-1-K MS

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 57090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.1155		mg/Kg		116	70 - 130		
Toluene	<0.00202	U *+	0.0994	0.1236		mg/Kg		124	70 - 130		
Ethylbenzene	<0.00202	U *+	0.0994	0.1098		mg/Kg		110	70 - 130		
m-Xylene & p-Xylene	<0.00403	U *+ *1	0.199	0.2262		mg/Kg		114	70 - 130		
o-Xylene	<0.00202	U *+ *1	0.0994	0.1088		mg/Kg		109	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-30380-A-1-L MSD

Matrix: Solid

Analysis Batch: 57044

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 57090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.1053		mg/Kg		106	70 - 130	9	35
Toluene	<0.00202	U *+	0.0990	0.1130		mg/Kg		114	70 - 130	9	35
Ethylbenzene	<0.00202	U *+	0.0990	0.09874		mg/Kg		100	70 - 130	11	35
m-Xylene & p-Xylene	<0.00403	U *+ *1	0.198	0.2028		mg/Kg		102	70 - 130	11	35
o-Xylene	<0.00202	U *+ *1	0.0990	0.09763		mg/Kg		99	70 - 130	11	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-57168/1-A

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57168

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 08:19	1

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## QC Sample Results

Client: Ensolum

Job ID: 890-4894-1

Project/Site: Windward Fed 2H &amp; King Tut Fed CTB

SDG: 03D2024204 32.1943,-103.7194

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-57168/1-A

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57168

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 08:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 08:19	1
Total TPH	<50.0	U	50.0	mg/Kg		07/07/23 12:45	07/09/23 08:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130	07/07/23 12:45	07/09/23 08:19	1
o-Terphenyl	131	S1+	70 - 130	07/07/23 12:45	07/09/23 08:19	1

Lab Sample ID: LCS 880-57168/2-A

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	881.5		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	697.0		mg/Kg		70	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: LCSD 880-57168/3-A

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57168

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	988.4		mg/Kg		99	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	893.1	*1	mg/Kg		89	70 - 130	25	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-4901-A-7-D MS

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 57168

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.1	U F1 F2	999	<50.0	U F1	mg/Kg		-2	70 - 130
Diesel Range Organics (Over C10-C28)	239	*1 F1 F2	999	235.9	F1	mg/Kg		-0.3	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	107		70 - 130

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## QC Sample Results

Client: Ensolum

Job ID: 890-4894-1

Project/Site: Windward Fed 2H &amp; King Tut Fed CTB

SDG: 03D2024204 32.1943,-103.7194

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-4901-A-7-D MS

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 57168

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	93		70 - 130

Lab Sample ID: 890-4901-A-7-E MSD

Matrix: Solid

Analysis Batch: 57224

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 57168

	Sample	Sample	Spike	MSD	MSD				%Rec	RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.1	U F1 F2	1000	1166	F2	mg/Kg		112	70 - 130	192	20
Diesel Range Organics (Over C10-C28)	239	*1 F1 F2	1000	1539	F2	mg/Kg		130	70 - 130	147	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	136	S1+	70 - 130								
<i>o</i> -Terphenyl	109		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-58100/1-A

Matrix: Solid

Analysis Batch: 58157

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00	mg/Kg			07/20/23 14:12	1		

Lab Sample ID: LCS 880-58100/2-A

Matrix: Solid

Analysis Batch: 58157

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	232.6		mg/Kg		93	90 - 110			

Lab Sample ID: LCSD 880-58100/3-A

Matrix: Solid

Analysis Batch: 58157

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD					%Rec	RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		RPD	Limit
Chloride	250	233.8		mg/Kg		94	90 - 110	1		20

Lab Sample ID: 890-4894-3 MS

Matrix: Solid

Analysis Batch: 58157

Client Sample ID: SS03

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	412		252	685.2		mg/Kg		108	90 - 110	

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QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4894-3 MSD								Client Sample ID: SS03			
Matrix: Solid								Prep Type: Soluble			
Analysis Batch: 58157											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	412		252	679.7		mg/Kg		106	90 - 110	1	20

## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

## GC VOA

## Analysis Batch: 57044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Total/NA	Solid	8021B	57090
890-4894-2	SS02	Total/NA	Solid	8021B	57090
890-4894-3	SS03	Total/NA	Solid	8021B	57090
MB 880-57060/5-A	Method Blank	Total/NA	Solid	8021B	57060
MB 880-57090/5-A	Method Blank	Total/NA	Solid	8021B	57090
LCS 880-57090/1-A	Lab Control Sample	Total/NA	Solid	8021B	57090
LCSD 880-57090/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57090
880-30380-A-1-K MS	Matrix Spike	Total/NA	Solid	8021B	57090
880-30380-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57090

## Prep Batch: 57060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57060/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 57090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Total/NA	Solid	5035	
890-4894-2	SS02	Total/NA	Solid	5035	
890-4894-3	SS03	Total/NA	Solid	5035	
MB 880-57090/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57090/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57090/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30380-A-1-K MS	Matrix Spike	Total/NA	Solid	5035	
880-30380-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 57151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Total/NA	Solid	Total BTEX	
890-4894-2	SS02	Total/NA	Solid	Total BTEX	
890-4894-3	SS03	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 57168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Total/NA	Solid	8015NM Prep	
890-4894-2	SS02	Total/NA	Solid	8015NM Prep	
890-4894-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-57168/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57168/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4901-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4901-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 57224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Total/NA	Solid	8015B NM	57168
890-4894-2	SS02	Total/NA	Solid	8015B NM	57168
890-4894-3	SS03	Total/NA	Solid	8015B NM	57168
MB 880-57168/1-A	Method Blank	Total/NA	Solid	8015B NM	57168
LCS 880-57168/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57168

Eurofins Carlsbad

## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

## GC Semi VOA (Continued)

## Analysis Batch: 57224 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-57168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57168
890-4901-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	57168
890-4901-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	57168

## Analysis Batch: 57303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Total/NA	Solid	8015 NM	
890-4894-2	SS02	Total/NA	Solid	8015 NM	
890-4894-3	SS03	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 58100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Soluble	Solid	DI Leach	
890-4894-2	SS02	Soluble	Solid	DI Leach	
890-4894-3	SS03	Soluble	Solid	DI Leach	
MB 880-58100/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58100/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58100/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4894-3 MS	SS03	Soluble	Solid	DI Leach	
890-4894-3 MSD	SS03	Soluble	Solid	DI Leach	

## Analysis Batch: 58157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4894-1	SS01	Soluble	Solid	300.0	58100
890-4894-2	SS02	Soluble	Solid	300.0	58100
890-4894-3	SS03	Soluble	Solid	300.0	58100
MB 880-58100/1-A	Method Blank	Soluble	Solid	300.0	58100
LCS 880-58100/2-A	Lab Control Sample	Soluble	Solid	300.0	58100
LCSD 880-58100/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58100
890-4894-3 MS	SS03	Soluble	Solid	300.0	58100
890-4894-3 MSD	SS03	Soluble	Solid	300.0	58100



## Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Client Sample ID: SS01

Lab Sample ID: 890-4894-1

Date Collected: 07/03/23 08:17

Matrix: Solid

Date Received: 07/03/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57090	07/06/23 12:35	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57044	07/07/23 07:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57151	07/07/23 10:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			57303	07/10/23 12:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	57168	07/07/23 12:45	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57224	07/09/23 15:44	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	58100	07/20/23 17:00	KS	EET MID
Soluble	Analysis	300.0		10			58157	07/21/23 03:27	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-4894-2

Date Collected: 07/03/23 08:18

Matrix: Solid

Date Received: 07/03/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57090	07/06/23 12:35	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57044	07/07/23 07:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57151	07/07/23 10:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			57303	07/10/23 12:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	57168	07/07/23 12:45	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57224	07/09/23 16:06	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	58100	07/20/23 17:00	KS	EET MID
Soluble	Analysis	300.0		20			58157	07/21/23 03:32	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-4894-3

Date Collected: 07/03/23 08:19

Matrix: Solid

Date Received: 07/03/23 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57090	07/06/23 12:35	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57044	07/07/23 08:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57151	07/07/23 10:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			57303	07/10/23 12:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	57168	07/07/23 12:45	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57224	07/09/23 16:27	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	58100	07/20/23 17:00	KS	EET MID
Soluble	Analysis	300.0		1			58157	07/21/23 03:37	CH	EET MID

## Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**  
ASTM = ASTM International  
EPA = US Environmental Protection Agency  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.  
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**  
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4894-1  
SDG: 03D2024204 32.1943,-103.7194

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4894-1	SS01	Solid	07/03/23 08:17	07/03/23 10:15	0.5
890-4894-2	SS02	Solid	07/03/23 08:18	07/03/23 10:15	0.5
890-4894-3	SS03	Solid	07/03/23 08:19	07/03/23 10:15	0.5

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## Environment Testing Xenco

## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC.	Company Name:	Ensolum LLC.
Address:	3122 National Parks Hwy.	Address:	3122 National Parks Hwy.
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	432-557-8845	Email:	kjennings@ensolum.com

Work Order Comments				
Program:	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/>	RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	NM			
Reporting:	Level II <input checked="" type="checkbox"/>	Level III <input type="checkbox"/>	PST/UST <input type="checkbox"/>	TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input checked="" type="checkbox"/>	ADaPT <input type="checkbox"/>	Other:	

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO <sub>2</sub>	Na	Sr	Tl	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed			TCLP/SPLP 6010 :		8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Tl	U											Hg: 1631 / 245.1 / 7470 / 7471	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	<i>[Signature]</i>	<i>[Signature]</i>	7/3-23/05			
3						
5						

Revised Date: 08/25/2020 Rev. 2020.2

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4894-1

SDG Number: 03D2024204 32.1943,-103.7194

Login Number: 4894

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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.	N/A	Refer to Job Narrative for details.
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").	N/A	



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4894-1

SDG Number: 03D2024204 32.1943,-103.7194

Login Number: 4894

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 07/06/23 10:57 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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").	N/A	



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 7/12/2023 8:59:52 AM

## JOB DESCRIPTION

Windward Fed 2H & King Tut Fed CTB

SDG NUMBER 03D2024204

## JOB NUMBER

890-4895-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
7/12/2023 8:59:52 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Laboratory Job ID: 890-4895-1  
SDG: 03D2024204

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## Definitions/Glossary

Client: Ensolum

Job ID: 890-4895-1

Project/Site: Windward Fed 2H &amp; King Tut Fed CTB

SDG: 03D2024204

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## 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

Eurofins Carlsbad

## Case Narrative

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

**Job ID: 890-4895-1**

**Laboratory: Eurofins Carlsbad**

**Narrative**

**Job Narrative  
890-4895-1**

**Receipt**

The samples were received on 7/3/2023 10:15 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 4.0°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: SS04 (890-4895-1), SS05 (890-4895-2), SS06 (890-4895-3) and SS07 (890-4895-4).

**GC VOA**

Method 8021B: CCV was biased high for analytes. Since no analytes were detected, the data was qualified and reported.(CCV 880-57118/20) and (CCV 880-57118/33)

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

**GC Semi VOA**

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: SS05 (890-4895-2), SS07 (890-4895-4) and (890-4895-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-57165 and analytical batch 880-57372 was outside control limits. Sample non-homogeneity is suspected.

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

**HPLC/IC**

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



## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Client Sample ID: SS04

Lab Sample ID: 890-4895-1

Date Collected: 07/03/23 08:20

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/07/23 09:28	07/07/23 20:20	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/07/23 09:28	07/07/23 20:20	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/07/23 09:28	07/07/23 20:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/07/23 09:28	07/07/23 20:20	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/07/23 09:28	07/07/23 20:20	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/07/23 09:28	07/07/23 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	252	S1+	70 - 130	07/07/23 09:28	07/07/23 20:20	1
1,4-Difluorobenzene (Surr)	107		70 - 130	07/07/23 09:28	07/07/23 20:20	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/10/23 15:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/12/23 09:47	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	49.9	mg/Kg		07/07/23 12:33	07/11/23 23:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/11/23 23:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/11/23 23:10	1
Total TPH	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/11/23 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	07/07/23 12:33	07/11/23 23:10	1
o-Terphenyl	107		70 - 130	07/07/23 12:33	07/11/23 23:10	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.7		4.96	mg/Kg			07/07/23 19:51	1

Client Sample ID: SS05

Lab Sample ID: 890-4895-2

Date Collected: 07/03/23 08:21

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 20:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 20:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 20:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		07/07/23 09:28	07/07/23 20:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 20:46	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		07/07/23 09:28	07/07/23 20:46	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Client Sample ID: SS05

Lab Sample ID: 890-4895-2

Date Collected: 07/03/23 08:21

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	197	S1+	70 - 130	07/07/23 09:28	07/07/23 20:46	1
1,4-Difluorobenzene (Surr)	80		70 - 130	07/07/23 09:28	07/07/23 20:46	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/10/23 15:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/12/23 09:47	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/12/23 00:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/12/23 00:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/12/23 00:14	1
Total TPH	<49.9	U	49.9	mg/Kg		07/07/23 12:33	07/12/23 00:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	07/07/23 12:33	07/12/23 00:14	1
o-Terphenyl	117		70 - 130	07/07/23 12:33	07/12/23 00:14	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.9		4.99	mg/Kg			07/07/23 20:07	1

Client Sample ID: SS06

Lab Sample ID: 890-4895-3

Date Collected: 07/03/23 08:22

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/07/23 09:28	07/07/23 21:12	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/07/23 09:28	07/07/23 21:12	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/07/23 09:28	07/07/23 21:12	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/07/23 09:28	07/07/23 21:12	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/07/23 09:28	07/07/23 21:12	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/07/23 09:28	07/07/23 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	198	S1+	70 - 130	07/07/23 09:28	07/07/23 21:12	1
1,4-Difluorobenzene (Surr)	77		70 - 130	07/07/23 09:28	07/07/23 21:12	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/10/23 15:18	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

## Client Sample ID: SS06

## Lab Sample ID: 890-4895-3

Date Collected: 07/03/23 08:22

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			07/12/23 09:47	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		07/07/23 12:33	07/12/23 00:35	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		07/07/23 12:33	07/12/23 00:35	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		07/07/23 12:33	07/12/23 00:35	1
Total TPH	<50.3	U	50.3	mg/Kg		07/07/23 12:33	07/12/23 00:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			07/07/23 12:33	07/12/23 00:35	1
o-Terphenyl	104		70 - 130			07/07/23 12:33	07/12/23 00:35	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	108		4.97	mg/Kg			07/07/23 20:12	1

## Client Sample ID: SS07

## Lab Sample ID: 890-4895-4

Date Collected: 07/03/23 08:23

Matrix: Solid

Date Received: 07/03/23 10:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/07/23 09:28	07/07/23 21:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/07/23 09:28	07/07/23 21:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/07/23 09:28	07/07/23 21:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/07/23 09:28	07/07/23 21:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/07/23 09:28	07/07/23 21:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/07/23 09:28	07/07/23 21:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	198	S1+	70 - 130			07/07/23 09:28	07/07/23 21:38	1
1,4-Difluorobenzene (Surr)	89		70 - 130			07/07/23 09:28	07/07/23 21:38	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/10/23 15:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			07/12/23 09:47	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		07/07/23 12:33	07/12/23 00:57	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		07/07/23 12:33	07/12/23 00:57	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		07/07/23 12:33	07/12/23 00:57	1

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Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Client Sample ID: SS07  
Date Collected: 07/03/23 08:23  
Date Received: 07/03/23 10:15  
Sample Depth: 0.5

Lab Sample ID: 890-4895-4  
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.5	U	50.5	mg/Kg		07/07/23 12:33	07/12/23 00:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	139	S1+	70 - 130			07/07/23 12:33	07/12/23 00:57	1	
o-Terphenyl	120		70 - 130			07/07/23 12:33	07/12/23 00:57	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	49.1		5.03	mg/Kg			07/07/23 20:17	1	

Surrogate Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-30420-A-1-C MS	Matrix Spike	171 S1+	82
880-30420-A-1-D MSD	Matrix Spike Duplicate	162 S1+	73
890-4895-1	SS04	252 S1+	107
890-4895-2	SS05	197 S1+	80
890-4895-3	SS06	198 S1+	77
890-4895-4	SS07	198 S1+	89
LCS 880-57125/1-A	Lab Control Sample	155 S1+	66 S1-
LCSD 880-57125/2-A	Lab Control Sample Dup	147 S1+	78
MB 880-57125/5-A	Method Blank	104	73
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4895-1	SS04	124	107
890-4895-1 MS	SS04	117	92
890-4895-1 MSD	SS04	133 S1+	104
890-4895-2	SS05	136 S1+	117
890-4895-3	SS06	121	104
890-4895-4	SS07	139 S1+	120
LCS 880-57165/2-A	Lab Control Sample	106	93
LCSD 880-57165/3-A	Lab Control Sample Dup	114	101
MB 880-57165/1-A	Method Blank	120	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

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

Lab Sample ID: MB 880-57125/5-A

Matrix: Solid

Analysis Batch: 57118

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57125

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 11:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 11:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/07/23 09:28	07/07/23 11:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/07/23 09:28	07/07/23 11:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/07/23 09:28	07/07/23 11:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/07/23 09:28	07/07/23 11:39	1
1,4-Difluorobenzene (Surr)	73		70 - 130	07/07/23 09:28	07/07/23 11:39	1

Lab Sample ID: LCS 880-57125/1-A

Matrix: Solid

Analysis Batch: 57118

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1135		mg/Kg		114	70 - 130
Toluene	0.100	0.1138		mg/Kg		114	70 - 130
Ethylbenzene	0.100	0.1092		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.2196		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1185		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	155	S1+	70 - 130
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130

Lab Sample ID: LCSD 880-57125/2-A

Matrix: Solid

Analysis Batch: 57118

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57125

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1208		mg/Kg		121	70 - 130	6	35
Toluene	0.100	0.1127		mg/Kg		113	70 - 130	1	35
Ethylbenzene	0.100	0.1177		mg/Kg		118	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2362		mg/Kg		118	70 - 130	7	35
o-Xylene	0.100	0.1176		mg/Kg		118	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	147	S1+	70 - 130
1,4-Difluorobenzene (Surr)	78		70 - 130

Lab Sample ID: 880-30420-A-1-C MS

Matrix: Solid

Analysis Batch: 57118

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 57125

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0994	0.1012		mg/Kg		102	70 - 130
Toluene	<0.00198	U	0.0994	0.09116		mg/Kg		92	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

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

Lab Sample ID: 880-30420-A-1-C MS

Matrix: Solid

Analysis Batch: 57118

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 57125

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0994	0.07584		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.199	0.1604		mg/Kg		81	70 - 130
o-Xylene	<0.00198	U	0.0994	0.08102		mg/Kg		82	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: 880-30420-A-1-D MSD

Matrix: Solid

Analysis Batch: 57118

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 57125

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.0998	0.1045		mg/Kg		105	70 - 130	3	35
Toluene	<0.00198	U	0.0998	0.1022		mg/Kg		102	70 - 130	11	35
Ethylbenzene	<0.00198	U	0.0998	0.09535		mg/Kg		96	70 - 130	23	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1895		mg/Kg		95	70 - 130	17	35
o-Xylene	<0.00198	U	0.0998	0.09564		mg/Kg		96	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130
1,4-Difluorobenzene (Surr)	73		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-57165/1-A

Matrix: Solid

Analysis Batch: 57372

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57165

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/07/23 12:33	07/11/23 22:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/07/23 12:33	07/11/23 22:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/07/23 12:33	07/11/23 22:05	1
Total TPH	<50.0	U	50.0	mg/Kg		07/07/23 12:33	07/11/23 22:05	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	07/07/23 12:33	07/11/23 22:05	1
o-Terphenyl	105		70 - 130	07/07/23 12:33	07/11/23 22:05	1

Lab Sample ID: LCS 880-57165/2-A

Matrix: Solid

Analysis Batch: 57372

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	980.1		mg/Kg		98	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-57165/2-A

Matrix: Solid

Analysis Batch: 57372

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57165

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	999.5		mg/Kg		100	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	93		70 - 130								

Lab Sample ID: LCSD 880-57165/3-A

Matrix: Solid

Analysis Batch: 57372

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57165

			Spike	LCSD	LCSD				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	912.5		mg/Kg		91	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	906.2		mg/Kg		91	70 - 130	10	20
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	114		70 - 130								
o-Terphenyl	101		70 - 130								

Lab Sample ID: 890-4895-1 MS

Matrix: Solid

Analysis Batch: 57372

Client Sample ID: SS04

Prep Type: Total/NA

Prep Batch: 57165

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	999	852.1		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1069		mg/Kg		105	70 - 130		

Lab Sample ID: 890-4895-1 MSD

Matrix: Solid

Analysis Batch: 57372

Client Sample ID: SS04

Prep Type: Total/NA

Prep Batch: 57165

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	1000	1050	F2	mg/Kg		101	70 - 130	21	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1234		mg/Kg		121	70 - 130	14	20
					</						

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QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57031/1-A Matrix: Solid Analysis Batch: 57192										Client Sample ID: Method Blank Prep Type: Soluble	
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	<5.00	U	5.00	mg/Kg			07/07/23 19:36	1			

Lab Sample ID: LCS 880-57031/2-A Matrix: Solid Analysis Batch: 57192										Client Sample ID: Lab Control Sample Prep Type: Soluble	
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.2		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-57031/3-A Matrix: Solid Analysis Batch: 57192										Client Sample ID: Lab Control Sample Dup Prep Type: Soluble	
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	256.0		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-4895-1 MS Matrix: Solid Analysis Batch: 57192										Client Sample ID: SS04 Prep Type: Soluble	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	88.7		248	330.6		mg/Kg		98	90 - 110		

Lab Sample ID: 890-4895-1 MSD Matrix: Solid Analysis Batch: 57192										Client Sample ID: SS04 Prep Type: Soluble	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	88.7		248	332.0		mg/Kg		98	90 - 110	0	20

## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

## GC VOA

## Analysis Batch: 57118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Total/NA	Solid	8021B	57125
890-4895-2	SS05	Total/NA	Solid	8021B	57125
890-4895-3	SS06	Total/NA	Solid	8021B	57125
890-4895-4	SS07	Total/NA	Solid	8021B	57125
MB 880-57125/5-A	Method Blank	Total/NA	Solid	8021B	57125
LCS 880-57125/1-A	Lab Control Sample	Total/NA	Solid	8021B	57125
LCSD 880-57125/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57125
880-30420-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	57125
880-30420-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57125

## Prep Batch: 57125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Total/NA	Solid	5035	
890-4895-2	SS05	Total/NA	Solid	5035	
890-4895-3	SS06	Total/NA	Solid	5035	
890-4895-4	SS07	Total/NA	Solid	5035	
MB 880-57125/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57125/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57125/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30420-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-30420-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 57355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Total/NA	Solid	Total BTEX	
890-4895-2	SS05	Total/NA	Solid	Total BTEX	
890-4895-3	SS06	Total/NA	Solid	Total BTEX	
890-4895-4	SS07	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 57165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Total/NA	Solid	8015NM Prep	
890-4895-2	SS05	Total/NA	Solid	8015NM Prep	
890-4895-3	SS06	Total/NA	Solid	8015NM Prep	
890-4895-4	SS07	Total/NA	Solid	8015NM Prep	
MB 880-57165/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57165/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57165/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4895-1 MS	SS04	Total/NA	Solid	8015NM Prep	
890-4895-1 MSD	SS04	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 57372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Total/NA	Solid	8015B NM	57165
890-4895-2	SS05	Total/NA	Solid	8015B NM	57165
890-4895-3	SS06	Total/NA	Solid	8015B NM	57165
890-4895-4	SS07	Total/NA	Solid	8015B NM	57165
MB 880-57165/1-A	Method Blank	Total/NA	Solid	8015B NM	57165
LCS 880-57165/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57165

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## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

## GC Semi VOA (Continued)

## Analysis Batch: 57372 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-57165/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57165
890-4895-1 MS	SS04	Total/NA	Solid	8015B NM	57165
890-4895-1 MSD	SS04	Total/NA	Solid	8015B NM	57165

## Analysis Batch: 57472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Total/NA	Solid	8015 NM	
890-4895-2	SS05	Total/NA	Solid	8015 NM	
890-4895-3	SS06	Total/NA	Solid	8015 NM	
890-4895-4	SS07	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 57031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Soluble	Solid	DI Leach	
890-4895-2	SS05	Soluble	Solid	DI Leach	
890-4895-3	SS06	Soluble	Solid	DI Leach	
890-4895-4	SS07	Soluble	Solid	DI Leach	
MB 880-57031/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57031/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57031/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4895-1 MS	SS04	Soluble	Solid	DI Leach	
890-4895-1 MSD	SS04	Soluble	Solid	DI Leach	

## Analysis Batch: 57192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4895-1	SS04	Soluble	Solid	300.0	57031
890-4895-2	SS05	Soluble	Solid	300.0	57031
890-4895-3	SS06	Soluble	Solid	300.0	57031
890-4895-4	SS07	Soluble	Solid	300.0	57031
MB 880-57031/1-A	Method Blank	Soluble	Solid	300.0	57031
LCS 880-57031/2-A	Lab Control Sample	Soluble	Solid	300.0	57031
LCSD 880-57031/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57031
890-4895-1 MS	SS04	Soluble	Solid	300.0	57031
890-4895-1 MSD	SS04	Soluble	Solid	300.0	57031

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Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Client Sample ID: SS04

Date Collected: 07/03/23 08:20

Date Received: 07/03/23 10:15

Lab Sample ID: 890-4895-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57125	07/07/23 09:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57118	07/07/23 20:20	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57355	07/10/23 15:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			57472	07/12/23 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57165	07/07/23 12:33	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57372	07/11/23 23:10	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57031	07/05/23 15:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57192	07/07/23 19:51	CH	EET MID

Client Sample ID: SS05

Date Collected: 07/03/23 08:21

Date Received: 07/03/23 10:15

Lab Sample ID: 890-4895-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57125	07/07/23 09:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57118	07/07/23 20:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57355	07/10/23 15:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			57472	07/12/23 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	57165	07/07/23 12:33	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57372	07/12/23 00:14	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57031	07/05/23 15:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57192	07/07/23 20:07	CH	EET MID

Client Sample ID: SS06

Date Collected: 07/03/23 08:22

Date Received: 07/03/23 10:15

Lab Sample ID: 890-4895-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57125	07/07/23 09:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57118	07/07/23 21:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57355	07/10/23 15:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			57472	07/12/23 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	57165	07/07/23 12:33	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57372	07/12/23 00:35	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57031	07/05/23 15:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57192	07/07/23 20:12	CH	EET MID

Client Sample ID: SS07

Date Collected: 07/03/23 08:23

Date Received: 07/03/23 10:15

Lab Sample ID: 890-4895-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57125	07/07/23 09:28	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57118	07/07/23 21:38	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57355	07/10/23 15:18	AJ	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Client Sample ID: SS07

Date Collected: 07/03/23 08:23

Date Received: 07/03/23 10:15

Lab Sample ID: 890-4895-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			57472	07/12/23 09:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	57165	07/07/23 12:33	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57372	07/12/23 00:57	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	57031	07/05/23 15:45	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57192	07/07/23 20:17	CH	EET MID

Laboratory References:  
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

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
8015 NM		Solid	Total TPH
8015B NM	8015NM Prep	Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum  
Project/Site: Windward Fed 2H & King Tut Fed CTB

Job ID: 890-4895-1  
SDG: 03D2024204

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4895-1	SS04	Solid	07/03/23 08:20	07/03/23 10:15	0.5
890-4895-2	SS05	Solid	07/03/23 08:21	07/03/23 10:15	0.5
890-4895-3	SS06	Solid	07/03/23 08:22	07/03/23 10:15	0.5
890-4895-4	SS07	Solid	07/03/23 08:23	07/03/23 10:15	0.5

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Environment Testing  
Xenco

## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum LLC.	Company Name:	Ensolum LLC.
Address:	3122 National Parks Hwy	Address:	3122 Carlsbad National Parks Hwy
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	432-557-8895	Email:	kjennings@ensolum.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	NM
Reporting:	Level II <input checked="" type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input checked="" type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:		Windward Fed 2H & King Tut Fed CTB Turn Around		ANALYSIS REQUEST										Preservative Codes					
Project Number:		0302024204		<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush		Pres. Code												None: NO DI Water: H <sub>2</sub> O	
Project Location:		32.1947, -103.7194		Due Date:														Cool: Cool MeOH: Me	
Sampler's Name:		Hadlie Green		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC HNO <sub>3</sub> : HN	
PO #:																		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na	
SAMPLE RECEIPT		Temp Blank: Yes No		Wet Ice: Yes No														H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:		Yes No		Thermometer ID:		ECONOM												NaHSO <sub>4</sub> : NABIS	
Cooler Custody Seals:		Yes No N/A		Correction Factor:		-0.2												Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
Sample Custody Seals:		Yes No N/A		Temperature Reading:		4.2												Zn Acetate+NaOH: Zn	
Total Containers:				Corrected Temperature:		4.0												NaOH+Ascorbic Acid: SAPC	
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont											Sample Comments	
SS04		S	7/2/23	0820	0.5'	G	1												
SS05		S	7/2/23	0821	0.5'	G	1												
SS06		S	7/3/23	0822	0.5'	G	1												
SS07		S	7/3/23	0823	0.5'	G	1												

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	7-3-23 1015	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4895-1

SDG Number: 03D2024204

Login Number: 4895

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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.	N/A	Refer to Job Narrative for details.
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").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4895-1

SDG Number: 03D2024204

Login Number: 4895

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 07/06/23 10:57 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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").	N/A	





Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Hadlie Green  
Ensolum  
601 N. Marienfeld St.  
Suite 400  
Midland, Texas 79701

Generated 8/21/2023 9:53:29 AM Revision 1

## JOB DESCRIPTION

Windward Fed 2H/King Tut Fed CBT  
SDG NUMBER 03D2024204

## JOB NUMBER

890-5009-1

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad NM 88220

# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Generated  
8/21/2023 9:53:29 AM  
Revision 1

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Laboratory Job ID: 890-5009-1  
SDG: 03D2024204

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## 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/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

**Job ID: 890-5009-1**

**Laboratory: Eurofins Carlsbad**

**Narrative**

**Job Narrative  
890-5009-1**

REVISION

The report being provided is a revision of the original report sent on 8/14/2023. The report (revision 1) is being revised due to Per client email, requesting sample ID corrections.

**Receipt**

The samples were received on 7/28/2023 3:36 PM. 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 1.2°C

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: BH07 (890-5009-1), BH07A (890-5009-2), BH04 (890-5009-3), BH04A (890-5009-4), BH06 (890-5009-5), BH06A (890-5009-6), BH01 (890-5009-7), BH01A (890-5009-8), BH02 (890-5009-9), BH02A (890-5009-10), BH05 (890-5009-11), BH05A (890-5009-12), BH03 (890-5009-13) and BH03A (890-5009-14).

**GC VOA**

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-59420 recovered above the upper control limit for m-Xylene & p-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-59420/2).

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

**GC Semi VOA**

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-59650 and analytical batch 880-60035 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: BH07 (890-5009-1), BH07A (890-5009-2), BH04 (890-5009-3), BH04A (890-5009-4), BH06 (890-5009-5), BH06A (890-5009-6), BH01 (890-5009-7), BH01A (890-5009-8), BH02 (890-5009-9), BH02A (890-5009-10), BH05 (890-5009-11), BH05A (890-5009-12), BH03 (890-5009-13), BH03A (890-5009-14), (CCV 880-60035/20), (CCV 880-60035/31), (CCV 880-60035/5), (LCS 880-59650/2-A), (LCSD 880-59650/3-A), (880-31363-A-1-C), (880-31363-A-1-D MS) and (880-31363-A-1-E MSD). Evidence of matrix interferences is not obvious.

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-59017 and analytical batch 880-59113 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control 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.

## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH07

Lab Sample ID: 890-5009-1

Date Collected: 07/28/23 11:40

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 16:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 16:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 16:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/07/23 09:56	08/07/23 16:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 16:45	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/07/23 09:56	08/07/23 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	08/07/23 09:56	08/07/23 16:45	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/07/23 09:56	08/07/23 16:45	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 14:05	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 14:05	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 14:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	177	S1+	70 - 130	08/08/23 15:16	08/13/23 14:05	1
o-Terphenyl	161	S1+	70 - 130	08/08/23 15:16	08/13/23 14:05	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		99.6	mg/Kg			08/02/23 19:38	20

Client Sample ID: BH07A

Lab Sample ID: 890-5009-2

Date Collected: 07/28/23 12:15

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 10

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 17:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 17:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 17:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/07/23 09:56	08/07/23 17:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 17:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/07/23 09:56	08/07/23 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	08/07/23 09:56	08/07/23 17:05	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH07A

Lab Sample ID: 890-5009-2

Date Collected: 07/28/23 12:15

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 10

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	08/07/23 09:56	08/07/23 17:05	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		08/08/23 15:16	08/13/23 14:27	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		08/08/23 15:16	08/13/23 14:27	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		08/08/23 15:16	08/13/23 14:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	164	S1+	70 - 130			08/08/23 15:16	08/13/23 14:27	1
o-Terphenyl	151	S1+	70 - 130			08/08/23 15:16	08/13/23 14:27	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5890		50.4	mg/Kg			08/02/23 19:44	10

Client Sample ID: BH04

Lab Sample ID: 890-5009-3

Date Collected: 07/28/23 12:40

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 17:26	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 17:26	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 17:26	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		08/07/23 09:56	08/07/23 17:26	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 17:26	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		08/07/23 09:56	08/07/23 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	08/07/23 09:56	08/07/23 17:26	1
1,4-Difluorobenzene (Surr)	99		70 - 130	08/07/23 09:56	08/07/23 17:26	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			08/14/23 20:51	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH04

Lab Sample ID: 890-5009-3

Date Collected: 07/28/23 12:40

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 5

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		08/08/23 15:16	08/13/23 14:49	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		08/08/23 15:16	08/13/23 14:49	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		08/08/23 15:16	08/13/23 14:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	160	S1+	70 - 130			08/08/23 15:16	08/13/23 14:49	1
o-Terphenyl	144	S1+	70 - 130			08/08/23 15:16	08/13/23 14:49	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3690		25.2	mg/Kg			08/02/23 19:50	5

Client Sample ID: BH04A

Lab Sample ID: 890-5009-4

Date Collected: 07/28/23 13:00

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 9

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 17:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 17:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 17:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/07/23 09:56	08/07/23 17:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 17:46	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/07/23 09:56	08/07/23 17:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			08/07/23 09:56	08/07/23 17:46	1
1,4-Difluorobenzene (Surr)	102		70 - 130			08/07/23 09:56	08/07/23 17:46	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 15:12	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 15:12	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 15:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130			08/08/23 15:16	08/13/23 15:12	1
o-Terphenyl	140	S1+	70 - 130			08/08/23 15:16	08/13/23 15:12	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH04A

Lab Sample ID: 890-5009-4

Date Collected: 07/28/23 13:00

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 9

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6820		50.2	mg/Kg			08/02/23 19:57	10

Client Sample ID: BH06

Lab Sample ID: 890-5009-5

Date Collected: 07/28/23 09:00

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 18:07	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 18:07	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 18:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/07/23 09:56	08/07/23 18:07	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 18:07	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/07/23 09:56	08/07/23 18:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			08/07/23 09:56	08/07/23 18:07	1
1,4-Difluorobenzene (Surr)	105		70 - 130			08/07/23 09:56	08/07/23 18:07	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 15:57	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 15:57	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		08/08/23 15:16	08/13/23 15:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	150	S1+	70 - 130			08/08/23 15:16	08/13/23 15:57	1
o-Terphenyl	137	S1+	70 - 130			08/08/23 15:16	08/13/23 15:57	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	434	F1	5.00	mg/Kg			08/02/23 20:03	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH06A

Lab Sample ID: 890-5009-6

Date Collected: 07/28/23 09:10

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 18:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 18:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 18:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/07/23 09:56	08/07/23 18:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 18:27	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/07/23 09:56	08/07/23 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	08/07/23 09:56	08/07/23 18:27	1
1,4-Difluorobenzene (Surr)	104		70 - 130	08/07/23 09:56	08/07/23 18:27	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 16:27	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 16:27	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130	08/08/23 15:16	08/13/23 16:27	1
o-Terphenyl	134	S1+	70 - 130	08/08/23 15:16	08/13/23 16:27	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	143		4.97	mg/Kg			08/02/23 20:21	1

Client Sample ID: BH01

Lab Sample ID: 890-5009-7

Date Collected: 07/28/23 09:25

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 18:48	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 18:48	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 18:48	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		08/07/23 09:56	08/07/23 18:48	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 18:48	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		08/07/23 09:56	08/07/23 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	08/07/23 09:56	08/07/23 18:48	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH01

Lab Sample ID: 890-5009-7

Date Collected: 07/28/23 09:25

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130	08/07/23 09:56	08/07/23 18:48	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 16:49	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 16:49	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 16:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	176	S1+	70 - 130			08/08/23 15:16	08/13/23 16:49	1
o-Terphenyl	158	S1+	70 - 130			08/08/23 15:16	08/13/23 16:49	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9430		50.2	mg/Kg			08/02/23 20:27	10

Client Sample ID: BH01A

Lab Sample ID: 890-5009-8

Date Collected: 07/28/23 09:35

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 19:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 19:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 19:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/07/23 09:56	08/07/23 19:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 19:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/07/23 09:56	08/07/23 19:08	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	89		70 - 130			08/07/23 09:56	08/07/23 19:08	1
1,4-Difluorobenzene (Surr)	104		70 - 130			08/07/23 09:56	08/07/23 19:08	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			08/14/23 20:51	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH01A

Lab Sample ID: 890-5009-8

Date Collected: 07/28/23 09:35

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 4

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		08/08/23 15:16	08/13/23 17:12	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		08/08/23 15:16	08/13/23 17:12	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		08/08/23 15:16	08/13/23 17:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	164	S1+	70 - 130			08/08/23 15:16	08/13/23 17:12	1
o-Terphenyl	156	S1+	70 - 130			08/08/23 15:16	08/13/23 17:12	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	369		5.02	mg/Kg			08/02/23 20:46	1

Client Sample ID: BH02

Lab Sample ID: 890-5009-9

Date Collected: 07/28/23 09:45

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 19:29	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 19:29	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 19:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/07/23 09:56	08/07/23 19:29	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/07/23 09:56	08/07/23 19:29	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/07/23 09:56	08/07/23 19:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			08/07/23 09:56	08/07/23 19:29	1
1,4-Difluorobenzene (Surr)	99		70 - 130			08/07/23 09:56	08/07/23 19:29	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		08/08/23 15:16	08/13/23 17:34	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		08/08/23 15:16	08/13/23 17:34	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		08/08/23 15:16	08/13/23 17:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130			08/08/23 15:16	08/13/23 17:34	1
o-Terphenyl	145	S1+	70 - 130			08/08/23 15:16	08/13/23 17:34	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH02

Lab Sample ID: 890-5009-9

Date Collected: 07/28/23 09:45

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 2

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13600		99.8	mg/Kg			08/02/23 20:52	20

Client Sample ID: BH02A

Lab Sample ID: 890-5009-10

Date Collected: 07/28/23 10:05

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 21:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 21:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 21:19	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/07/23 09:56	08/07/23 21:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 21:19	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/07/23 09:56	08/07/23 21:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130			08/07/23 09:56	08/07/23 21:19	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/07/23 09:56	08/07/23 21:19	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/08/23 15:16	08/13/23 17:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/08/23 15:16	08/13/23 17:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/08/23 15:16	08/13/23 17:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130			08/08/23 15:16	08/13/23 17:56	1
o-Terphenyl	129		70 - 130			08/08/23 15:16	08/13/23 17:56	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	369		5.01	mg/Kg			08/02/23 20:58	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH05

Lab Sample ID: 890-5009-11

Date Collected: 07/28/23 10:15

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 21:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 21:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 21:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/07/23 09:56	08/07/23 21:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/07/23 09:56	08/07/23 21:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/07/23 09:56	08/07/23 21:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	08/07/23 09:56	08/07/23 21:40	1
1,4-Difluorobenzene (Surr)	101		70 - 130	08/07/23 09:56	08/07/23 21:40	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		08/08/23 15:16	08/13/23 18:19	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		08/08/23 15:16	08/13/23 18:19	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		08/08/23 15:16	08/13/23 18:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130	08/08/23 15:16	08/13/23 18:19	1
o-Terphenyl	127		70 - 130	08/08/23 15:16	08/13/23 18:19	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11400		101	mg/Kg			08/02/23 21:04	20

Client Sample ID: BH05A

Lab Sample ID: 890-5009-12

Date Collected: 07/28/23 10:40

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 7

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 22:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 22:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 22:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/07/23 09:56	08/07/23 22:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 22:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/07/23 09:56	08/07/23 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/07/23 09:56	08/07/23 22:00	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH05A

Lab Sample ID: 890-5009-12

Date Collected: 07/28/23 10:40

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	08/07/23 09:56	08/07/23 22:00	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 18:41	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 18:41	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		08/08/23 15:16	08/13/23 18:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130			08/08/23 15:16	08/13/23 18:41	1
o-Terphenyl	129		70 - 130			08/08/23 15:16	08/13/23 18:41	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	342		4.99	mg/Kg			08/02/23 21:10	1

Client Sample ID: BH03

Lab Sample ID: 890-5009-13

Date Collected: 07/28/23 10:50

Matrix: Solid

Date Received: 07/28/23 15:36

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 22:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 22:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 22:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		08/07/23 09:56	08/07/23 22:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/07/23 09:56	08/07/23 22:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/07/23 09:56	08/07/23 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	08/07/23 09:56	08/07/23 22:21	1
1,4-Difluorobenzene (Surr)	101		70 - 130	08/07/23 09:56	08/07/23 22:21	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/14/23 20:51	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## Client Sample ID: BH03

Date Collected: 07/28/23 10:50

Date Received: 07/28/23 15:36

Sample Depth: 1

## Lab Sample ID: 890-5009-13

Matrix: Solid

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/08/23 15:16	08/13/23 19:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/08/23 15:16	08/13/23 19:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/08/23 15:16	08/13/23 19:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	146	S1+	70 - 130			08/08/23 15:16	08/13/23 19:04	1
o-Terphenyl	132	S1+	70 - 130			08/08/23 15:16	08/13/23 19:04	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9050		49.6	mg/Kg			08/02/23 21:16	10

## Client Sample ID: BH03A

Date Collected: 07/28/23 11:50

Date Received: 07/28/23 15:36

Sample Depth: 7

## Lab Sample ID: 890-5009-14

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/07/23 09:56	08/07/23 22:41	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/07/23 09:56	08/07/23 22:41	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/07/23 09:56	08/07/23 22:41	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/07/23 09:56	08/07/23 22:41	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/07/23 09:56	08/07/23 22:41	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/07/23 09:56	08/07/23 22:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			08/07/23 09:56	08/07/23 22:41	1
1,4-Difluorobenzene (Surr)	105		70 - 130			08/07/23 09:56	08/07/23 22:41	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			08/08/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/14/23 20:51	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/08/23 15:16	08/13/23 19:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/08/23 15:16	08/13/23 19:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/08/23 15:16	08/13/23 19:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	174	S1+	70 - 130			08/08/23 15:16	08/13/23 19:27	1
o-Terphenyl	151	S1+	70 - 130			08/08/23 15:16	08/13/23 19:27	1

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Client Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH03A  
Date Collected: 07/28/23 11:50  
Date Received: 07/28/23 15:36  
Sample Depth: 7

Lab Sample ID: 890-5009-14  
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	589		4.95	mg/Kg			08/02/23 21:23	1	

## Surrogate Summary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-5005-A-1-D MS	Matrix Spike	94	110
890-5005-A-1-E MSD	Matrix Spike Duplicate	103	96
890-5009-1	BH07	92	97
890-5009-2	BH07A	98	98
890-5009-3	BH04	90	99
890-5009-4	BH04A	87	102
890-5009-5	BH06	98	105
890-5009-6	BH06A	94	104
890-5009-7	BH01	90	100
890-5009-8	BH01A	89	104
890-5009-9	BH02	94	99
890-5009-10	BH02A	84	94
890-5009-11	BH05	94	101
890-5009-12	BH05A	99	95
890-5009-13	BH03	92	101
890-5009-14	BH03A	82	105
LCS 880-59470/1-A	Lab Control Sample	94	93
LCSD 880-59470/2-A	Lab Control Sample Dup	93	96
MB 880-59470/5-A	Method Blank	109	122

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-31363-A-1-D MS	Matrix Spike	162 S1+	122
880-31363-A-1-E MSD	Matrix Spike Duplicate	158 S1+	121
890-5009-1	BH07	177 S1+	161 S1+
890-5009-2	BH07A	164 S1+	151 S1+
890-5009-3	BH04	160 S1+	144 S1+
890-5009-4	BH04A	154 S1+	140 S1+
890-5009-5	BH06	150 S1+	137 S1+
890-5009-6	BH06A	151 S1+	134 S1+
890-5009-7	BH01	176 S1+	158 S1+
890-5009-8	BH01A	164 S1+	156 S1+
890-5009-9	BH02	156 S1+	145 S1+
890-5009-10	BH02A	144 S1+	129
890-5009-11	BH05	140 S1+	127
890-5009-12	BH05A	144 S1+	129
890-5009-13	BH03	146 S1+	132 S1+
890-5009-14	BH03A	174 S1+	151 S1+
LCS 880-59650/2-A	Lab Control Sample	160 S1+	146 S1+
LCSD 880-59650/3-A	Lab Control Sample Dup	163 S1+	144 S1+
MB 880-59650/1-A	Method Blank	163 S1+	150 S1+

## Surrogate Legend

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Surrogate Summary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT  
1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

Job ID: 890-5009-1  
SDG: 03D2024204

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## QC Sample Results

Client: Ensolum

Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1

SDG: 03D2024204

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

Lab Sample ID: MB 880-59470/5-A

Matrix: Solid

Analysis Batch: 59420

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 59470

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 15:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 15:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 15:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/07/23 09:56	08/07/23 15:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/23 09:56	08/07/23 15:55	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/07/23 09:56	08/07/23 15:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	08/07/23 09:56	08/07/23 15:55	1
1,4-Difluorobenzene (Surr)	122		70 - 130	08/07/23 09:56	08/07/23 15:55	1

Lab Sample ID: LCS 880-59470/1-A

Matrix: Solid

Analysis Batch: 59420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 59470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1112		mg/Kg		111	70 - 130
Toluene	0.100	0.1109		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1044		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.2165		mg/Kg		108	70 - 130
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: LCSD 880-59470/2-A

Matrix: Solid

Analysis Batch: 59420

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 59470

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1147		mg/Kg		115	70 - 130	3	35
Toluene	0.100	0.1102		mg/Kg		110	70 - 130	1	35
Ethylbenzene	0.100	0.09617		mg/Kg		96	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1966		mg/Kg		98	70 - 130	10	35
o-Xylene	0.100	0.1022		mg/Kg		102	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-5005-A-1-D MS

Matrix: Solid

Analysis Batch: 59420

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 59470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0996	0.1203		mg/Kg		121	70 - 130
Toluene	<0.00202	U	0.0996	0.1193		mg/Kg		120	70 - 130

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## QC Sample Results

Client: Ensolum

Job ID: 890-5009-1

Project/Site: Windward Fed 2H/King Tut Fed CBT

SDG: 03D2024204

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

Lab Sample ID: 890-5005-A-1-D MS

Matrix: Solid

Analysis Batch: 59420

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 59470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0996	0.1106		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.199	0.2391		mg/Kg		120	70 - 130
o-Xylene	<0.00202	U	0.0996	0.08298		mg/Kg		83	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-5005-A-1-E MSD

Matrix: Solid

Analysis Batch: 59420

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 59470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U	0.100	0.1153		mg/Kg		115	70 - 130	4	35
Toluene	<0.00202	U	0.100	0.1093		mg/Kg		109	70 - 130	9	35
Ethylbenzene	<0.00202	U	0.100	0.1084		mg/Kg		108	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2306		mg/Kg		115	70 - 130	4	35
o-Xylene	<0.00202	U	0.100	0.1077		mg/Kg		108	70 - 130	26	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-59650/1-A

Matrix: Solid

Analysis Batch: 60035

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 59650

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/08/23 15:15	08/13/23 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/08/23 15:15	08/13/23 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/08/23 15:15	08/13/23 08:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	163	S1+	70 - 130	08/08/23 15:15	08/13/23 08:29	1
o-Terphenyl	150	S1+	70 - 130	08/08/23 15:15	08/13/23 08:29	1

Lab Sample ID: LCS 880-59650/2-A

Matrix: Solid

Analysis Batch: 60035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 59650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1121		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1125		mg/Kg		113	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-59650/2-A

Matrix: Solid

Analysis Batch: 60035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 59650

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	160	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-59650/3-A

Matrix: Solid

Analysis Batch: 60035

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 59650

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1140		mg/Kg		114	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1126		mg/Kg		113	70 - 130	0	20
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	163	S1+	70 - 130								
o-Terphenyl	144	S1+	70 - 130								

Lab Sample ID: 880-31363-A-1-D MS

Matrix: Solid

Analysis Batch: 60035

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 59650

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	998	1036		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)	292		998	1380		mg/Kg		109	70 - 130		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	162	S1+	70 - 130								
o-Terphenyl	122		70 - 130								

Lab Sample ID: 880-31363-A-1-E MSD

Matrix: Solid

Analysis Batch: 60035

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 59650

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	998	998.7		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	292		998	1348		mg/Kg		106	70 - 130	2	20
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	158	S1+	70 - 130								
o-Terphenyl	121		70 - 130								

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## QC Sample Results

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59017/1-A

Matrix: Solid

Analysis Batch: 59113

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			08/02/23 18:06	1

Lab Sample ID: LCS 880-59017/2-A

Matrix: Solid

Analysis Batch: 59113

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	242.8		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-59017/3-A

Matrix: Solid

Analysis Batch: 59113

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	270.2		mg/Kg		108	90 - 110	11	20

Lab Sample ID: 890-5009-5 MS

Matrix: Solid

Analysis Batch: 59113

Client Sample ID: BH06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	434	F1	250	657.1	F1	mg/Kg		89	90 - 110

Lab Sample ID: 890-5009-5 MSD

Matrix: Solid

Analysis Batch: 59113

Client Sample ID: BH06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	434	F1	250	668.5		mg/Kg		94	90 - 110	2	20

## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## GC VOA

## Analysis Batch: 59420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Total/NA	Solid	8021B	59470
890-5009-2	BH07A	Total/NA	Solid	8021B	59470
890-5009-3	BH04	Total/NA	Solid	8021B	59470
890-5009-4	BH04A	Total/NA	Solid	8021B	59470
890-5009-5	BH06	Total/NA	Solid	8021B	59470
890-5009-6	BH06A	Total/NA	Solid	8021B	59470
890-5009-7	BH01	Total/NA	Solid	8021B	59470
890-5009-8	BH01A	Total/NA	Solid	8021B	59470
890-5009-9	BH02	Total/NA	Solid	8021B	59470
890-5009-10	BH02A	Total/NA	Solid	8021B	59470
890-5009-11	BH05	Total/NA	Solid	8021B	59470
890-5009-12	BH05A	Total/NA	Solid	8021B	59470
890-5009-13	BH03	Total/NA	Solid	8021B	59470
890-5009-14	BH03A	Total/NA	Solid	8021B	59470
MB 880-59470/5-A	Method Blank	Total/NA	Solid	8021B	59470
LCS 880-59470/1-A	Lab Control Sample	Total/NA	Solid	8021B	59470
LCSD 880-59470/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	59470
890-5005-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	59470
890-5005-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	59470

## Prep Batch: 59470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Total/NA	Solid	5035	
890-5009-2	BH07A	Total/NA	Solid	5035	
890-5009-3	BH04	Total/NA	Solid	5035	
890-5009-4	BH04A	Total/NA	Solid	5035	
890-5009-5	BH06	Total/NA	Solid	5035	
890-5009-6	BH06A	Total/NA	Solid	5035	
890-5009-7	BH01	Total/NA	Solid	5035	
890-5009-8	BH01A	Total/NA	Solid	5035	
890-5009-9	BH02	Total/NA	Solid	5035	
890-5009-10	BH02A	Total/NA	Solid	5035	
890-5009-11	BH05	Total/NA	Solid	5035	
890-5009-12	BH05A	Total/NA	Solid	5035	
890-5009-13	BH03	Total/NA	Solid	5035	
890-5009-14	BH03A	Total/NA	Solid	5035	
MB 880-59470/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-59470/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-59470/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5005-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-5005-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 59616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Total/NA	Solid	Total BTEX	
890-5009-2	BH07A	Total/NA	Solid	Total BTEX	
890-5009-3	BH04	Total/NA	Solid	Total BTEX	
890-5009-4	BH04A	Total/NA	Solid	Total BTEX	
890-5009-5	BH06	Total/NA	Solid	Total BTEX	
890-5009-6	BH06A	Total/NA	Solid	Total BTEX	
890-5009-7	BH01	Total/NA	Solid	Total BTEX	

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## QC Association Summary

Client: Ensolum

Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1

SDG: 03D2024204

## GC VOA (Continued)

## Analysis Batch: 59616 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-8	BH01A	Total/NA	Solid	Total BTEX	
890-5009-9	BH02	Total/NA	Solid	Total BTEX	
890-5009-10	BH02A	Total/NA	Solid	Total BTEX	
890-5009-11	BH05	Total/NA	Solid	Total BTEX	
890-5009-12	BH05A	Total/NA	Solid	Total BTEX	
890-5009-13	BH03	Total/NA	Solid	Total BTEX	
890-5009-14	BH03A	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 59650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Total/NA	Solid	8015NM Prep	
890-5009-2	BH07A	Total/NA	Solid	8015NM Prep	
890-5009-3	BH04	Total/NA	Solid	8015NM Prep	
890-5009-4	BH04A	Total/NA	Solid	8015NM Prep	
890-5009-5	BH06	Total/NA	Solid	8015NM Prep	
890-5009-6	BH06A	Total/NA	Solid	8015NM Prep	
890-5009-7	BH01	Total/NA	Solid	8015NM Prep	
890-5009-8	BH01A	Total/NA	Solid	8015NM Prep	
890-5009-9	BH02	Total/NA	Solid	8015NM Prep	
890-5009-10	BH02A	Total/NA	Solid	8015NM Prep	
890-5009-11	BH05	Total/NA	Solid	8015NM Prep	
890-5009-12	BH05A	Total/NA	Solid	8015NM Prep	
890-5009-13	BH03	Total/NA	Solid	8015NM Prep	
890-5009-14	BH03A	Total/NA	Solid	8015NM Prep	
MB 880-59650/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-59650/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-59650/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31363-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31363-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 60035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Total/NA	Solid	8015B NM	59650
890-5009-2	BH07A	Total/NA	Solid	8015B NM	59650
890-5009-3	BH04	Total/NA	Solid	8015B NM	59650
890-5009-4	BH04A	Total/NA	Solid	8015B NM	59650
890-5009-5	BH06	Total/NA	Solid	8015B NM	59650
890-5009-6	BH06A	Total/NA	Solid	8015B NM	59650
890-5009-7	BH01	Total/NA	Solid	8015B NM	59650
890-5009-8	BH01A	Total/NA	Solid	8015B NM	59650
890-5009-9	BH02	Total/NA	Solid	8015B NM	59650
890-5009-10	BH02A	Total/NA	Solid	8015B NM	59650
890-5009-11	BH05	Total/NA	Solid	8015B NM	59650
890-5009-12	BH05A	Total/NA	Solid	8015B NM	59650
890-5009-13	BH03	Total/NA	Solid	8015B NM	59650
890-5009-14	BH03A	Total/NA	Solid	8015B NM	59650
MB 880-59650/1-A	Method Blank	Total/NA	Solid	8015B NM	59650
LCS 880-59650/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	59650
LCSD 880-59650/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	59650

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## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## GC Semi VOA (Continued)

## Analysis Batch: 60035 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31363-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	59650
880-31363-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	59650

## Analysis Batch: 60208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Total/NA	Solid	8015 NM	
890-5009-2	BH07A	Total/NA	Solid	8015 NM	
890-5009-3	BH04	Total/NA	Solid	8015 NM	
890-5009-4	BH04A	Total/NA	Solid	8015 NM	
890-5009-5	BH06	Total/NA	Solid	8015 NM	
890-5009-6	BH06A	Total/NA	Solid	8015 NM	
890-5009-7	BH01	Total/NA	Solid	8015 NM	
890-5009-8	BH01A	Total/NA	Solid	8015 NM	
890-5009-9	BH02	Total/NA	Solid	8015 NM	
890-5009-10	BH02A	Total/NA	Solid	8015 NM	
890-5009-11	BH05	Total/NA	Solid	8015 NM	
890-5009-12	BH05A	Total/NA	Solid	8015 NM	
890-5009-13	BH03	Total/NA	Solid	8015 NM	
890-5009-14	BH03A	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 59017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Soluble	Solid	DI Leach	
890-5009-2	BH07A	Soluble	Solid	DI Leach	
890-5009-3	BH04	Soluble	Solid	DI Leach	
890-5009-4	BH04A	Soluble	Solid	DI Leach	
890-5009-5	BH06	Soluble	Solid	DI Leach	
890-5009-6	BH06A	Soluble	Solid	DI Leach	
890-5009-7	BH01	Soluble	Solid	DI Leach	
890-5009-8	BH01A	Soluble	Solid	DI Leach	
890-5009-9	BH02	Soluble	Solid	DI Leach	
890-5009-10	BH02A	Soluble	Solid	DI Leach	
890-5009-11	BH05	Soluble	Solid	DI Leach	
890-5009-12	BH05A	Soluble	Solid	DI Leach	
890-5009-13	BH03	Soluble	Solid	DI Leach	
890-5009-14	BH03A	Soluble	Solid	DI Leach	
MB 880-59017/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59017/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59017/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5009-5 MS	BH06	Soluble	Solid	DI Leach	
890-5009-5 MSD	BH06	Soluble	Solid	DI Leach	

## Analysis Batch: 59113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-1	BH07	Soluble	Solid	300.0	59017
890-5009-2	BH07A	Soluble	Solid	300.0	59017
890-5009-3	BH04	Soluble	Solid	300.0	59017
890-5009-4	BH04A	Soluble	Solid	300.0	59017
890-5009-5	BH06	Soluble	Solid	300.0	59017

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## QC Association Summary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

## HPLC/IC (Continued)

## Analysis Batch: 59113 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5009-6	BH06A	Soluble	Solid	300.0	59017
890-5009-7	BH01	Soluble	Solid	300.0	59017
890-5009-8	BH01A	Soluble	Solid	300.0	59017
890-5009-9	BH02	Soluble	Solid	300.0	59017
890-5009-10	BH02A	Soluble	Solid	300.0	59017
890-5009-11	BH05	Soluble	Solid	300.0	59017
890-5009-12	BH05A	Soluble	Solid	300.0	59017
890-5009-13	BH03	Soluble	Solid	300.0	59017
890-5009-14	BH03A	Soluble	Solid	300.0	59017
MB 880-59017/1-A	Method Blank	Soluble	Solid	300.0	59017
LCS 880-59017/2-A	Lab Control Sample	Soluble	Solid	300.0	59017
LCSD 880-59017/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59017
890-5009-5 MS	BH06	Soluble	Solid	300.0	59017
890-5009-5 MSD	BH06	Soluble	Solid	300.0	59017

## Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

**Client Sample ID: BH07****Lab Sample ID: 890-5009-1****Date Collected: 07/28/23 11:40****Matrix: Solid****Date Received: 07/28/23 15:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 16:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 14:05	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	59113	08/02/23 19:38	CH	EET MID

**Client Sample ID: BH07A****Lab Sample ID: 890-5009-2****Date Collected: 07/28/23 12:15****Matrix: Solid****Date Received: 07/28/23 15:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 17:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 14:27	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	59113	08/02/23 19:44	CH	EET MID

**Client Sample ID: BH04****Lab Sample ID: 890-5009-3****Date Collected: 07/28/23 12:40****Matrix: Solid****Date Received: 07/28/23 15:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 17:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 14:49	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	59113	08/02/23 19:50	CH	EET MID

**Client Sample ID: BH04A****Lab Sample ID: 890-5009-4****Date Collected: 07/28/23 13:00****Matrix: Solid****Date Received: 07/28/23 15:36**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 17:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

**Client Sample ID: BH04A****Date Collected: 07/28/23 13:00****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-4****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 15:12	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	59113	08/02/23 19:57	CH	EET MID

**Client Sample ID: BH06****Date Collected: 07/28/23 09:00****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-5****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 18:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 15:57	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59113	08/02/23 20:03	CH	EET MID

**Client Sample ID: BH06A****Date Collected: 07/28/23 09:10****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-6****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 18:27	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 16:27	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59113	08/02/23 20:21	CH	EET MID

**Client Sample ID: BH01****Date Collected: 07/28/23 09:25****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 18:48	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 16:49	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

**Client Sample ID: BH01****Date Collected: 07/28/23 09:25****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	59113	08/02/23 20:27	CH	EET MID

**Client Sample ID: BH01A****Date Collected: 07/28/23 09:35****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-8****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 19:08	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 17:12	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59113	08/02/23 20:46	CH	EET MID

**Client Sample ID: BH02****Date Collected: 07/28/23 09:45****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-9****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 19:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 17:34	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	59113	08/02/23 20:52	CH	EET MID

**Client Sample ID: BH02A****Date Collected: 07/28/23 10:05****Date Received: 07/28/23 15:36****Lab Sample ID: 890-5009-10****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 21:19	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 17:56	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59113	08/02/23 20:58	CH	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH05  
Date Collected: 07/28/23 10:15  
Date Received: 07/28/23 15:36

Lab Sample ID: 890-5009-11  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 21:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 18:19	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	59113	08/02/23 21:04	CH	EET MID

Client Sample ID: BH05A  
Date Collected: 07/28/23 10:40  
Date Received: 07/28/23 15:36

Lab Sample ID: 890-5009-12  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 22:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 18:41	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59113	08/02/23 21:10	CH	EET MID

Client Sample ID: BH03  
Date Collected: 07/28/23 10:50  
Date Received: 07/28/23 15:36

Lab Sample ID: 890-5009-13  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 22:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 19:04	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	59113	08/02/23 21:16	CH	EET MID

Client Sample ID: BH03A  
Date Collected: 07/28/23 11:50  
Date Received: 07/28/23 15:36

Lab Sample ID: 890-5009-14  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	59470	08/07/23 09:56	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59420	08/07/23 22:41	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59616	08/08/23 10:05	SM	EET MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Client Sample ID: BH03A  
Date Collected: 07/28/23 11:50  
Date Received: 07/28/23 15:36

Lab Sample ID: 890-5009-14  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			60208	08/14/23 20:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	59650	08/08/23 15:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60035	08/13/23 19:27	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	59017	08/01/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59113	08/02/23 21:23	CH	EET MID

Laboratory References:  
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1  
SDG: 03D2024204

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

## Method Summary

Client: Ensolum

Project/Site: Windward Fed 2H/King Tut Fed CBT

Job ID: 890-5009-1

SDG: 03D2024204

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Carlsbad

## Sample Summary

Client: Ensolum

Job ID: 890-5009-1

Project/Site: Windward Fed 2H/King Tut Fed CBT

SDG: 03D2024204

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5009-1	BH07	Solid	07/28/23 11:40	07/28/23 15:36	5
890-5009-2	BH07A	Solid	07/28/23 12:15	07/28/23 15:36	10
890-5009-3	BH04	Solid	07/28/23 12:40	07/28/23 15:36	5
890-5009-4	BH04A	Solid	07/28/23 13:00	07/28/23 15:36	9
890-5009-5	BH06	Solid	07/28/23 09:00	07/28/23 15:36	1
890-5009-6	BH06A	Solid	07/28/23 09:10	07/28/23 15:36	3
890-5009-7	BH01	Solid	07/28/23 09:25	07/28/23 15:36	2
890-5009-8	BH01A	Solid	07/28/23 09:35	07/28/23 15:36	4
890-5009-9	BH02	Solid	07/28/23 09:45	07/28/23 15:36	2
890-5009-10	BH02A	Solid	07/28/23 10:05	07/28/23 15:36	6
890-5009-11	BH05	Solid	07/28/23 10:15	07/28/23 15:36	2
890-5009-12	BH05A	Solid	07/28/23 10:40	07/28/23 15:36	7
890-5009-13	BH03	Solid	07/28/23 10:50	07/28/23 15:36	1
890-5009-14	BH03A	Solid	07/28/23 11:50	07/28/23 15:36	7





Environment Testing  
Xenco

## Chain of Custody

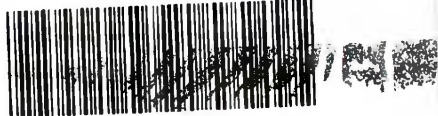
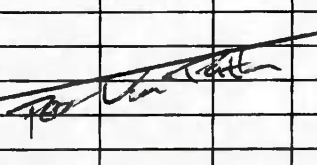
Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

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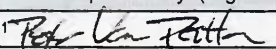

Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	hgreen@ensolum.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:		Turn Around		ANALYSIS REQUEST										Preservative Codes			
Project Number:	03D2024204	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code													None: NO	DI Water: H <sub>2</sub> O
Project Location:	32.195,-103.7194	Due Date:														Cool: Cool	MeOH: Me
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO <sub>3</sub> : HN
PO #:																H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na
<b>SAMPLE RECEIPT</b>		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	 890-5009 Chain of Custody										H <sub>3</sub> PO <sub>4</sub> : HP			
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	7NM007											H <sub>2</sub> PO <sub>4</sub> : NABIS			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	-0.2											Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:	1.4											Zn Acetate+NaOH: Zn			
Total Containers:		Corrected Temperature:	1.2											NaOH+Ascorbic Acid: SAPC			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)							Sample Comments	
BH07E	Soil	7/28/2023	1140	5	Comp	1	x	x	x								
BH07J	Soil	7/28/2023	1215	10	Comp	1	x	x	x								
BH04E	Soil	7/28/2023	1240	5	Comp	1	x	x	x								
BH04I	Soil	7/28/2023	1300	9	Comp	1	x	x	x								
																	

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$6 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7-28-23 1536			

Revised Date: 08/25/2020 Rev. 2020.2



Environment Testing  
Xenco

## Chain of Custody

Houston, TX (281) 240-4200. Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440. San Antonio, TX (210) 509-3334  
EL Paso, TX (915) 585-3443. Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550. Carlsbad, NM (575) 988-3199

**Work Order No:** \_\_\_\_\_

www.xenco.com Page 2 of 2



Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	hggreen@ensolum.com

Work Order Comments			
Program:	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:			
Reporting:	Level II <input type="checkbox"/>	Level III <input type="checkbox"/>	PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/>	ADaPT <input type="checkbox"/>	Other:

[illegible]

<b>Total</b> 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO <sub>2</sub>	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg: 1631 / 245.1 / 7470 / 7471										

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)		Received by: (Signature)		Date/Time	Relinquished by: (Signature)		Received by: (Signature)		Date/Time
1				7-28-23 1535					
3					4				
5					6				

Revised Date: 08/25/2020 Rev. 2020.2

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5009-1

SDG Number: 03D2024204

Login Number: 5009

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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.	N/A	Refer to Job Narrative for details.
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").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5009-1

SDG Number: 03D2024204

Login Number: 5009

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 08/01/23 10:57 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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").	N/A	





## APPENDIX E

### NMOCD Notifications

---

**From:** [Wells, Shelly, EMNRD](#)  
**To:** [Hadlie Green](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Velez, Nelson, EMNRD](#)  
**Subject:** RE: [EXTERNAL] COP - Sampling Notification (Week of 7/24/2023)  
**Date:** Wednesday, July 19, 2023 4:01:22 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

[ \*\*EXTERNAL EMAIL\*\* ]

Hi Hadlie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

[Shelly Wells](#) \* Environmental Specialist-Advanced  
Administrative Permitting Program  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Hadlie Green <[hgreen@ensolum.com](mailto:hgreen@ensolum.com)>  
**Sent:** Wednesday, July 19, 2023 1:43 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Peter Van Patten <[pvanpatten@ensolum.com](mailto:pvanpatten@ensolum.com)>; Laird, Jacob <[Jacob.Laird@conocophillips.com](mailto:Jacob.Laird@conocophillips.com)>; Esparza, Brittany <[brittany.esparza@conocophillips.com](mailto:brittany.esparza@conocophillips.com)>; Carlile, Justin <[Justin.Carlile@conocophillips.com](mailto:Justin.Carlile@conocophillips.com)>  
**Subject:** [EXTERNAL] COP - Sampling Notification (Week of 7/24/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ConocoPhillips Company (COP) plans to complete sampling activities at the following sites the week of July 24, 2023.

- King Tut Federal CTB / NAPP2319132381

- Sampling Date: 7/24/2023 @ 0900 MST
- King Tut Federal CTB / NAPP2318734399
  - Sampling Date: 7/25/2023 @1200 MST
- Superman Water Treatment Facility / NAPP2319140286
  - Sampling Date: 7/26-27/2023 @ 0900 MST

Thank you,



**Hadlie Green**

Project Geologist

432-557-8895

[hgreen@ensolum.com](mailto:hgreen@ensolum.com)

**Ensolum, LLC**







APPENDIX F

Form C-141

---

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NAPP2319132381
District RP	
Facility ID	fAPP2203843099
Application ID	

## Release Notification

### Responsible Party

Responsible Party	COG Operating, LLC.	OGRID	229137
Contact Name	Jacob Laird	Contact Telephone	(575) 703-5482
Contact email	Jacob.Laird@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2319132381
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

### Location of Release Source

Latitude 32.195 Longitude -103.7194  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	King Tut Federal CTB	Site Type	Flowline
Date Release Discovered	June 21, 2023	API# (if applicable)	

Unit Letter	Section	Township	Range	County
D	30	24S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 158.54	Volume Recovered (bbls) 70
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

The release was caused by a hole that developed in a flex line due to corrosion.

This release was off pad.

Evaluation will be made of the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Incident ID	NAPP2319132381
District RP	
Facility ID	fAPP2203843099
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <b>Release was greater than 25 barrels.</b>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? <b>Immediate Notification was given by Jacob Laird on June 21, 2023 at 3:20 PM via email to ocd.enviro@emnrd.nm.gov and BLM_NM &lt;BLM_NM_CFO_Spill@blm.gov.</b>	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:          	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name <b>Brittany N. Esparza</b>	Title: <b>Environmental Technician</b>
Signature: 	Date: <b>7/10/2023</b>
email: <b>Brittany.Esparza@ConocoPhillips.com</b>	Telephone: <b>(432) 221-0398</b>
<b><u>OCD Only</u></b>	
Received by: <b>Shelly Wells</b>	Date: <b>7/10/2023</b>

## Spill Calculation - On-Pad Surface Pool Spill

Page 3 of 4

Received by OCD: 7/10/2023 9:23:30 AM							
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	Estimated <u>Pool</u> Area (sq. ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	35	80	2.0	2800.00	83.07	0.01	83.76
Rectangle B	50	50	2.0	2500.00	74.17	0.01	74.78
Rectangle C				0.00	0.00	0.00	0.00
Rectangle D				0.00	0.00	0.00	0.00
Rectangle E				0.00	0.00	0.00	0.00
Rectangle F				0.00	0.00	0.00	0.00
Rectangle G				0.00	0.00	0.00	0.00
Rectangle H				0.00	0.00	0.00	0.00
Rectangle I				0.00	0.00	0.00	0.00
Rectangle J				0.00	0.00	0.00	0.00
Released to Imaging: 7/10/2023 10:30:00 AM							
Total Surface Pool Volume Released, Release to Soil/Caliche:							158.5436

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 237817

CONDITIONS

Operator: COG PRODUCTION, LLC 600 W. Illinois Ave Midland, TX 79701	OGRID: 217955
	Action Number: 237817
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	7/10/2023

Incident ID	NAPP2319132381
District RP	
Facility ID	fAPP2203843099
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&gt;100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

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Incident ID	NAPP2319132381
District RP	
Facility ID	fAPP2203843099
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: \_\_Jacob Laird\_\_\_\_ Title: \_\_Environmental Engineer\_\_\_\_

Signature: Jacob Laird Date: \_\_8/28/2023\_\_\_\_

email: \_\_Jacob.Laird@conocophillips.com\_\_\_\_ Telephone: \_\_575-703-5482\_\_\_\_

**OCD Only**Received by: Shelly Wells Date: 9/7/2023



Incident ID	NAPP2319132381
District RP	
Facility ID	fAPP2203843099
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: \_\_Jacob Laird\_\_ Title: \_\_Environmental Engineer\_\_  
Signature: *Jacob Laird* Date: \_\_8/28/2023\_\_  
email: \_\_Jacob.Laird@conocophillips.com\_\_ Telephone: \_\_575-703-5482\_\_

**OCD Only**

Received by: \_\_Shelly Wells\_\_ Date: \_\_9/7/2023\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: *Nelson Velez* Date: \_\_11/28/2023\_\_

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 262946

CONDITIONS

Operator: COG PRODUCTION, LLC 600 W. Illinois Ave Midland, TX 79701	OGRID: 217955
	Action Number: 262946
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation plan approved as written. Remediation Due date updated to February 26, 2024.	11/28/2023