



December 31, 2025

**New Mexico Oil Conservation Division**

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

**Re: Deferral Request Addendum  
Pygmy 27 State 3H  
Incident Number nAPP2509657158  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Deferral Request Addendum (Addendum)* for the Pygmy 27 State 3H (Site). This *Addendum* details assessment, delineation, and excavation activities completed at the Site, in response to the denial by the New Mexico Conservation Division (NMOCD) of a previously submitted *Revised Deferral Request*. In the denial, NMOCD stated remediation of the release at the Site does not require major facility deconstruction. Based on soil sample laboratory analytical results, COG is submitting this *Addendum*, describing excavation activities that have occurred and requesting deferral of final remediation for Incident Number nAPP2509657158 until the Site is reconstructed, and/or the well pad is abandoned.

**BACKGROUND**

The Site is located in Unit B, Section 27, Township 21 South, Range 33 East in Lea County, New Mexico (32.4564°, -103.5577°) and is associated with oil and gas exploration and production operations on private land owned by Merchant Livestock Company.

On April 6, 2025, equipment failure resulted in the release of approximately 48 barrels (bbls) of crude oil into the lined secondary containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 23 bbls of released crude oil were recovered from within the lined containment. The lined containment was then power washed to remove any residual staining and or standing fluids. COG reported the release to the NMOCD and submitted a Release Notification Form C-141 (Form C-141) on April 17, 2025. The release was assigned Incident Number nAPP2509657158. A 48-hour advance notice of liner inspection was provided to the NMOCD on April 29, 2025. A liner integrity inspection was conducted by COG personnel following fluid recovery on May 2, 2025. Upon inspection, the liner was determined to be insufficient.

COG completed assessment and delineation activities in response to the release and submitted a *Deferral Request* to the NMOCD on July 1, 2025. On July 11, 2025, the NMOCD denied the *Deferral Request* for the following reasons:

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- *This application has been rejected because the C-141 is incomplete. The submitted application indicates a conflict between the questions answered and the attachments that have been submitted. For example, the answer "Yes" was selected to "requesting a remediation closure approval with this submission"; however, your attachments indicate that your intent is to request a deferral approval. If requesting a deferral, a "Yes" must first be selected to "Requesting a deferral of the remediation closure due date with the approval of this submission" and then a "No" selected to "Requesting a remediation closure approval with this submission". Please review the Dec 1, 2023, Public Notice titled Implementation of Digital C-141 and New Incident Statuses found on the OCD website and submit a new C-141 answering the appropriate questions for your circumstance.*
- *To the question "Was this release entirely contained within a lined containment area?" you answered "yes". Because it was compromised, the answer must be changed to "No" for both incidents upon C-141 resubmission, otherwise the system thinks it's a liner report being submitted.*
- *Under the Site Characterization portion of the C-141 application the minimum distance to the following is incorrect and requires update upon application resubmission and in report resubmittal: any lakebed, sinkhole, or playa lake (1-5 miles NE as seen on Figure 1).*
- *On pg. 2 of report: "Three boreholes (DS01, DS02, and DS06w) were advanced via hand auger within the location of tears in the liner to assess the vertical extent of impacted soil." Show the location of DS06w on Figure 3.*
- *Referring to pg. 3: "Laboratory analytical results for the delineation soil sample collected from DS03 at 0.5 feet bgs indicated a chloride concentration of 601 mg/kg which initially exceeded the most stringent Table I Closure Criteria. Delineation soil sample DS03 was recollected, homogenized, and analyzed following the same procedure described above. Laboratory analytical results for DS03, recollected at 0.5 feet bgs indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria." Explain. OCD does not accept a rehomogenized recollected delineation sample. If a horizontal delineation sample is above the standards of 19.15.29.13 NMAC, you must step out to collect a new sample further from the release to complete horizontal delineation until laboratory results show contaminants are below reclamation standards.*
- *Major facility deconstruction typically involves concrete poured pads, structures, engineered designed facilities that include automation/electrical lines, sprayed in lines, etc. After review, OCD does not consider the remediation of the releases at the Pygmy 27 St 3H Battery to require a major facility deconstruction. A deferral for this release will not be granted until every effort has been made to remediate this release using hand tools, hydrovac, etc. to the maximum extent practicable.*

COG submitted a *Revised Deferral Request* in response to the denial. Correction of C-141 submittal errors, clarification on nomenclature, and engineering *Excavation Guidance Document* on September 24, 2025. On October 6, 2025, the NMOCD denied the *Revised Deferral Request* for the following reason:

*OCD does not believe remediating the impacts of DS02 at 0.5 ft depth will require major facility deconstruction. COG mentions the proposed excavation has a maximum dimension of 143 X 48 feet. OCD would like to point out that the area where contaminants are above Table I >100 feet to groundwater criteria most likely can be remediated without the entire battery being deconstructed. The liner can be cut at DS02 and hand tools used to remove the contaminants to below Closure Criteria, which will provide the best protection of fresh water, public health and the environment. If, during this process, laboratory samples show a larger area was impacted than previously characterized, OCD can be consulted for the next steps.*

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Following the denial of the *Revised Deferral Request*, a meeting was scheduled for October 16, 2025, with the NMOCD for clarification. Per the conversation, COG agreed to cut a 5-foot by 5-foot square in the floor of the lined containment in the vicinity of DS02 and completed excavation activities via hand tools to the maximum extent practicable (MEP). The previously completed remedial activities and subsequent excavation activities are described below.

The *Revised Deferral Request* originally combined two separate releases; however, because the releases occurred on different portions of the lined containment and exhibited different analytical outcomes, this report addresses only the subject Incident Number, which contained soil exceedances, in response to the denial by the NMOCD. A separate report will be prepared and submitted for the previously connected release (Incident Number nAPP2509329614).

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to 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 are summarized below.

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well CP-01349-POD 1, located approximately 0.5 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 573 feet bgs and a total depth of 1,188 feet bgs. All wells used for depth to groundwater determination are presented on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a riverine, located approximately 0.97 miles 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

## SITE ASSESSMENT AND DELINEATION ACTIVITIES

Between May 9, 2025, and July 29, 2025, Ensolum personnel visited the Site to evaluate the release extent and conduct delineation activities. Two boreholes (DS02 and DS06) were advanced via hand auger within the location of the tears in the liner to assess the vertical extent of impacted soil. One borehole (DS01) was advanced via hand auger within the location of the tear resulting from the first release that occurred on March 29, 2025 (Incident Number nAPP2509329614) in the northern portion of the lined containment. Additionally, eight boreholes (DS03 through DS05, and DS07 through DS10) were advanced via hand auger around the containment to confirm the lateral extent of the release.

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Discrete delineation soil samples were collected from each borehole at depths ranging from 0.5 feet to 3 feet bgs.

Soil from the boreholes was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Field screening results and observations from the boreholes were documented on lithologic soil sampling logs, which are included in Appendix B. The release extents for both releases and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation is included in Appendix C.

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 analysis 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

Laboratory analytical results for delineation soil samples collected from DS01 and DS03 through DS10 indicated all COC concentrations were compliant with the Site Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for the delineation soil sample collected from DS02 at 0.5 feet bgs indicated TPH-GRO/TPH-DRO concentrations exceeded the Site Closure Criteria. Laboratory analytical results for the delineation soil sample collected from DS02 at 3 feet bgs indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and successfully defined the vertical extent of impacted soil. Laboratory analytical results are summarized in Table 1, and the laboratory analytical reports are included in Appendix D.

## EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On October 29, 2025, Ensolum personnel returned to the Site to oversee excavation activities in accordance with the verbal correspondence between COG and NMOCD. A 5-foot by 5-foot square was cut in the floor of the liner in the vicinity of DS02. Excavation activities were performed via hand tools to a depth of 1.5 feet bgs. Excavation could not be extended beyond this depth due to refusal encountered against highly compacted soil, which prevented further excavation without mechanical equipment capable of penetrating lithified material. Mobilizing such equipment within the confined footprint of the lined containment was not feasible without compromising the liner system or creating safety hazards. Photographic documentation is included in Appendix C.

To direct excavation activities, soil was screened for VOCs and chloride. Following removal of all accessible impacted soil above the refusal layer to the MEP, Ensolum personnel collected 5-point composite soil samples representing no more than 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil sample FS01 was collected from the floor of the excavation at an approximate depth of 1.5 feet bgs. Composite soil sample SW01 was collected from the sidewalls of the excavation at depths ranging from the ground surface to 1.5 feet bgs. The composite soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for the composite soil samples collected from the excavation extent indicated TPH-GRO/TPH-DRO concentrations exceeded the Closure Criteria. These exceedances

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occur within the compact soil refusal zone where additional excavation was not practicable or safely achievable. Because refusal prevented penetration into the underlying lithified material, the residual impacts located below 1.5 feet bgs could not be removed without the use of heavy mechanical equipment that would have jeopardized the structural integrity of the lined containment and posed significant safety risks. Therefore, the remaining exceeding soil was left in place beneath the refusal layer. Laboratory analytical results are summarized in Table 1, and laboratory analytical reports are included as Appendix D.

The excavation area measured approximately 25 square feet. A total of approximately 2 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the Lea Land Disposal Facility in Hobbs, New Mexico. After completion of the composite sampling, the excavation was immediately backfilled and the liner was patched.

## DEFERRAL REQUEST

COG is requesting deferral of final remediation due to the presence of active production equipment and surface pipelines within the lined containment preventing further excavation of impacted soil. The impacted soil is limited to the area immediately beneath the lined containment, separators, process piping, supports, and surface pipelines, where additional remediation would require major facility deconstruction.

The impacted soil remaining in place beneath the liner is delineated vertically by delineation soil sample DS02, collected at 3 feet bgs, and laterally by delineation soil samples DS01, and DS03 through DS10. An estimated maximum of 450 cubic yards of impacted soil remains in place below the 4,028 square foot lined containment.

COG does not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was determined to be greater than 100 feet bgs and the impacted soil remaining in place is limited in areal and vertical extent. The liner has been repaired by COG and will restrict future vertical migration of residual impacts.

Based on the presence of active production equipment within the release area and the complete lateral and vertical delineation of impacted soil remaining in place, COG requests deferral of final remediation for Incident Number nAPP2509657158 until final reclamation of the well pad or major construction, whichever comes first.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or [kjennings@ensolum.com](mailto:kjennings@ensolum.com).

Sincerely,  
**Ensolum, LLC**

*Tabitha*

Tabitha Guardian  
 Staff Geologist

*Kalei Jennings*

Kalei Jennings  
 Senior Managing Scientist

cc: Jacob Laird, ConocoPhillips Company  
 Merchant Livestock Company

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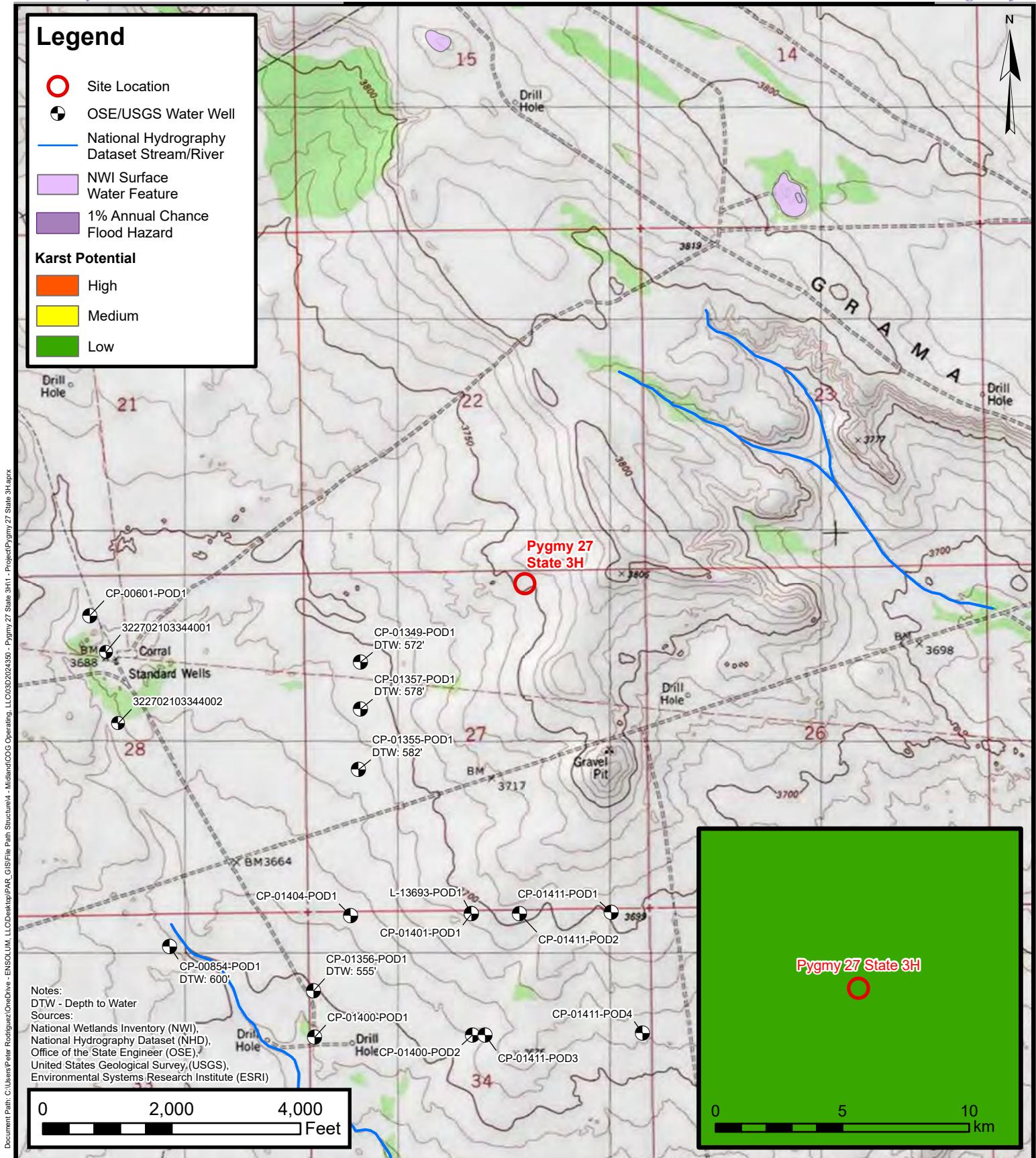
Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Figure 4 Proposed Deferral Area
- Table 1 Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Lithologic Soil Sampling Logs
- Appendix C Photographic Log
- Appendix D Laboratory Analytical Reports & Chain of Custody Documentation



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## FIGURES



## Site Receptor Map

COG Operating, LLC

Pygmy 27 State 3H

Incident Number: nAPP2509657158

Unit B, Section 27, T21S, R33E  
Lea County, New MexicoEnvironmental, Engineering and  
Hydrogeologic Consultants

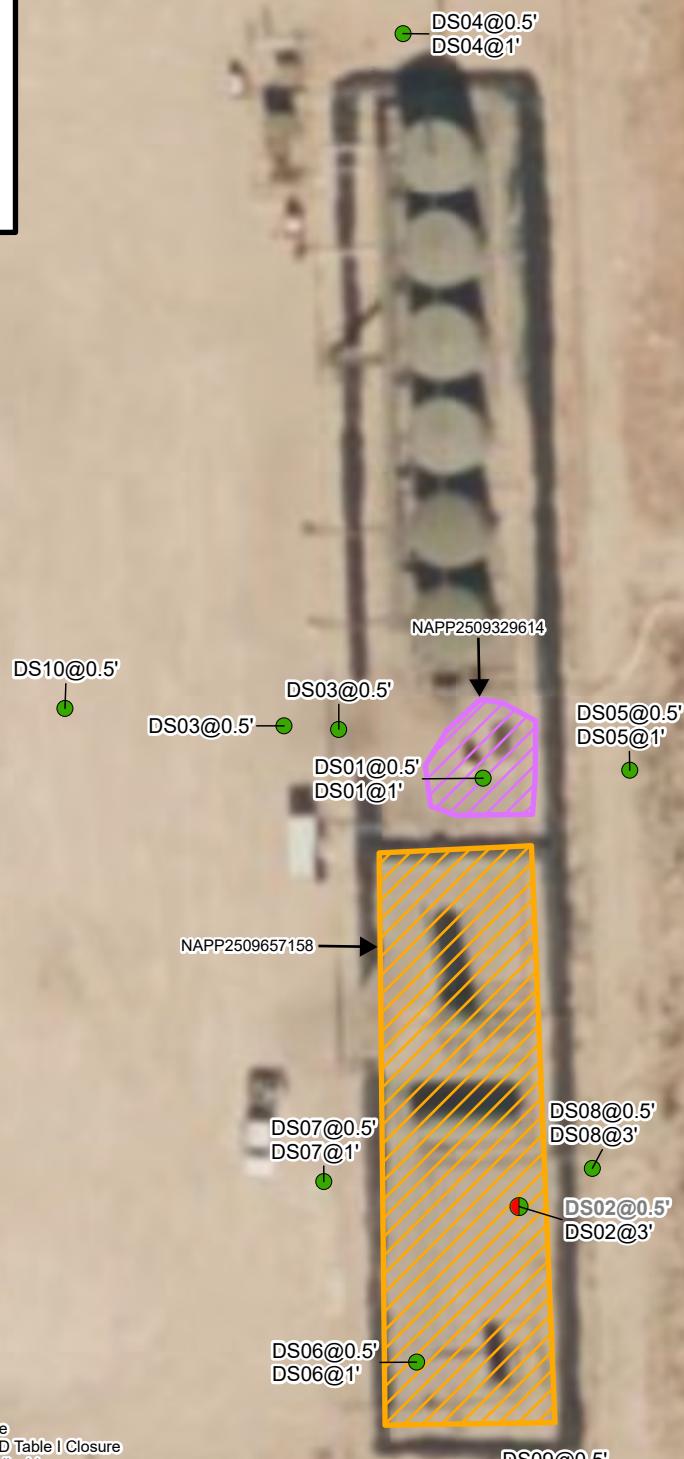
FIGURE

1



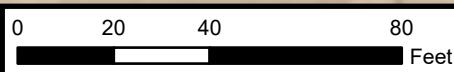
## Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Release Extent (NAPP2509329614)
- Release Extent (NAPP2509657158)



### Notes:

Sample ID @ Depth Below Ground Surface  
 Concentrations in **bold** exceed the NMOC Table I Closure Criteria or reclamation standard where applicable



Sources: Environmental Systems Research Institute (ESRI)



Environmental, Engineering and  
Hydrogeologic Consultants

## Delineation Soil Sample Locations

COG Operating, LLC  
 Pygmy 27 State 3H  
 Incident Number: NAPP2509657158  
 Unit B, Section 27, T 21S, R 33E  
 Lea County, New Mexico

**FIGURE**  
**2**

N

**Legend**

- Excavation Floor Soil Sample with Concentrations Exceeding Closure Criteria
- Excavation Sidewall Soil Sample with Concentrations Exceeding Closure Criteria
- Excavation Extent



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Hydrogeologic Consultants

## Excavation Soil Sample Locations

COG Operating, LLC  
 Pygmy 27 State 3H  
 Incident Number: NAPP2509657158  
 Unit B, Section 27, T 21S, R 33E  
 Lea County, New Mexico

**FIGURE  
3**

**Legend**

- Excavation Floor Soil Sample with Concentrations Exceeding Closure Criteria
- Excavation Sidewall Soil Sample with Concentrations Exceeding Closure Criteria
- ▲ Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Deferral Area
- Release Extent
- Excavation Extent



**Proposed Deferral Area**  
 COG Operating, LLC  
 Pygmy 27 State 3H  
 Incident Number: NAPP2509657158  
 Unit B, Section 27, T 21S, R 33E  
 Lea County, New Mexico

**FIGURE**  
**4**



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## TABLES



TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Pygmy 27 State Com 3H  
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)
NMOCD Table I Closure Criteria (NMAC 19.15.29)		10	50	NE	NE	NE	1,000	2,500	20,000	
<b>Delineation Soil Samples</b>										
DS01	05/09/2025	0.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	104
DS01	05/09/2025	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	89.7
DS02	05/09/2025	0.5	0.193	5.00	256	1,460	<49.8	1,716	1,716	127
DS02	05/09/2025	3	<0.00199	<0.00398	<49.9	56.9	<49.9	56.9	56.9	127
DS03	05/09/2025	0.5	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	601
DS03	06/05/2025	0.5	<0.00200	<0.00400	<49.7	<49.7	<49.7	<49.7	<49.7	273
DS04	05/09/2025	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	99.2
DS04	05/09/2025	1	<0.00201	0.00412	<49.8	<49.8	<49.8	<49.8	<49.8	79.1
DS05	05/09/2025	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	281
DS05	05/09/2025	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	366
DS06	05/09/2025	0.5	<0.00199	0.00636	<49.8	<49.8	<49.8	<49.8	<49.8	589
DS06	05/09/2025	1	0.00224	0.00870	<49.9	<49.9	<49.9	<49.9	<49.9	760
DS07	05/09/2025	0.5	<0.00201	0.00483	<50.0	<50.0	<50.0	<50.0	<50.0	92.8
DS07	06/05/2025	1	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	107
DS08	05/09/2025	0.5	0.00223	0.00931	<49.8	<49.8	<49.8	<49.8	<49.8	204
DS08	05/09/2025	3	<0.00198	<0.00396	<49.7	<49.7	<49.7	<49.7	<49.7	137
DS09	06/05/2025	0.5	<0.00202	<0.00404	<49.7	<49.7	<49.7	<49.7	<49.7	107
DS09	06/05/2025	1	<0.00202	<0.00403	<50.3	<50.3	<50.3	<50.3	<50.3	121
DS10	07/29/2025	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	196
<b>Excavation Soil Samples</b>										
FS01	10/29/2025	1.5	<0.00201	<0.00402	<49.9	1,620	381	1,620	2,000	506
SW01	10/29/2025	0 - 1.5	<0.00200	<0.00401	<50.0	1,610	445	1,610	2,060	559

**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.

Grey text indicates soil sample was removed during excavation activities



## APPENDIX A

### Referenced Well Records



# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

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

STATE ENGINEER OFFICE  
NEW MEXICO

2018 SEP 10 PM 2:15

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NUMBER (WELL NUMBER) CP-1349 (Tyler #1) <i>*** REVISED 09/09/14 ***</i>				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) Merchants/Glenn's Water Well Service, Inc.				PHONE (OPTIONAL) 575-398-2424			
	WELL OWNER MAILING ADDRESS P. O. Box 692				CITY Tatum	STATE NM	ZIP 88267	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	32	MINUTES 27	SECONDS 11.3	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
		LONGITUDE	103	33	57.7	W	* DATUM REQUIRED: WGS 84	
	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE1/4SW1/4NW1/4 Section 27, Township 21 South, Range 33 East on Merchants Livestock Land							
	LICENSE NUMBER WD 421		NAME OF LICENSED DRILLER Corky Glenn			NAME OF WELL DRILLING COMPANY Glenn's Water Well Service, Inc.		
	DRILLING STARTED 07/12/14	DRILLING ENDED 07/18/14	DEPTH OF COMPLETED WELL (FT) 1,188'	BORE HOLE DEPTH (FT) 1,188'	DEPTH WATER FIRST ENCOUNTERED (FT) 990'			
	COMPLETED WELL IS: <input checked="" type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 572'			
	DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY:							
DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> 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	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
FROM 0'	TO 40'	20"	16"		None	15 1/2"	.250	
0'	754'	14 3/4"	9 5/8"		Thread & Collar	8.921"	36 lbs.	none
721'	1,188'	8 3/4"	7" (467' Total) 259.93' perforated on bottom of liner		Thread & Collar	6.366"	23 lbs.	1/8"
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 0'	TO 40'	20"	Cemented			2 yds.	Top Pour	
0	754'	14 3/4"	Float and shoe cemented to surface			777	Circulated	
FOR OSE INTERNAL USE								
FILE NUMBER CP-1349			POD NUMBER 1			TRN NUMBER 548679		
LOCATION Expt			21S. 33E. 27. 132			PAGE 1 OF 2		

#### 4. HYDROGEOLOGIC LOG OF WELL

## 5. TEST: RIG SUPERVISION

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: 0' to 754' drilled with mud. 754' to 1,188' drilled with air and foam.	
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:		

5. SIGNATURE

6. SIGNATURE THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Corkey Glenn Corkey Glenn 9/9/14

SIGNATURE OF DRILLER / PRINT SIGHNEE NAME DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER CP-1349

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POD NUMBER

TRN NUMBER

5087.99

**LOCATION**

215.33 E. 27.132

PAGE 2 OF 2



# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

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

STATE ENGINEER OFFICE  
DOS VELLS, NEW MEXICO

2014 AUG -4 AM 10:48

<b>1. GENERAL AND WELL LOCATION</b>		OSE POD NUMBER (WELL NUMBER)			OSE FILE NUMBER(S)		
		CP - 1349 (Tyler #1)					
		WELL OWNER NAME(S)			PHONE (OPTIONAL)		
		Merchants Livestock/Glenn's Water Well Service, Inc.			(575)398-2424		
WELL OWNER MAILING ADDRESS		CITY	STATE	ZIP			
P.O. Box 692		Tatum	NM	88267			
WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS				
	LATITUDE	32	27	11.3	N		
LONGITUDE		103	33	37.7	W		
* ACCURACY REQUIRED: ONE TENTH OF A SECOND							
* DATUM REQUIRED: WGS 84							
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE							
NE/SW/NW Sec. 27, T21S, R33E on Merchants Livestock Land							
LICENSE NUMBER		NAME OF LICENSED DRILLER			NAME OF WELL DRILLING COMPANY		
WD 421		Corky Glenn			Glenn's Water Well Service, Inc.		
DRILLING STARTED		DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)		
7/12/14		7/18/14	1188'	1188'	990'		
STATIC WATER LEVEL IN COMPLETED WELL (FT)							
COMPLETED WELL IS: <input checked="" type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)							
DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY:							
DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> 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	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)
FROM	TO						SLOT SIZE (inches)
0'	40'	20"	16"	none	15 1/2'	.250	
0'	754'	14 3/4"	9 5/8"	Thread and collar	.352	36 lbs.	none
721'	1188'	8 3/4"	7"	Thread and collar	6.5"	23 lbs.	1/8"
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						
0'	40'	20"	Cemented			2 yds.	Top Pour
0'	754'	14 3/4"	Float and shoe cemented to surface			740	Circulated
FOR OSE INTERNAL USE							
FILE NUMBER			POD NUMBER	WR-20 WELL RECORD & LOG (Version 06/08/2012)			
CP-1349			1	TRN NUMBER 548679			
LOCATION			21S.33E.27.231				PAGE 1 OF 2

DEPTH (feet bg)		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'	4'	4'	Sand	<input type="radio"/> Y <input checked="" type="radio"/> N	
4'	19'	15'	Caleche	<input type="radio"/> Y <input checked="" type="radio"/> N	
19'	35'	16'	Sand & Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
35'	122'	87'	Red Sand	<input type="radio"/> Y <input checked="" type="radio"/> N	
122'	145'	23'	Sandy Red Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
145'	417'	272'	Red & Brown Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
417'	720'	303'	Brown & Red Shale (some clay)	<input type="radio"/> Y <input checked="" type="radio"/> N	
720'	742'	22'	Red, Brown & Blue Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
742'	753'	11'	Brown Shale & Brown Sandrock	<input type="radio"/> Y <input checked="" type="radio"/> N	
753'	805'	52'	Red & Blue Clay	<input type="radio"/> Y <input checked="" type="radio"/> N	
805'	837'	32'	Brown & Red Shale (some sandrock)	<input type="radio"/> Y <input checked="" type="radio"/> N	
837'	885'	48'	Brown Sandrock & Shale	<input type="radio"/> Y <input checked="" type="radio"/> N	
855'	990'	105'	Red & Brown Shale (some sandrock)	<input type="radio"/> Y <input checked="" type="radio"/> N	
990'	1188'	198'	Watersand(Brown sandrock)	<input checked="" type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
				<input type="radio"/> Y <input checked="" type="radio"/> N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input checked="" type="radio"/> PUMP					TOTAL ESTIMATED WELL YIELD (gpm): 50
<input type="radio"/> AIR LIFT <input type="radio"/> BAILER <input type="radio"/> OTHER - SPECIFY:					

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:	
	0' to 754' drilled with mud. 754' to 1188' drilled with air and foam.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	SIGNATURE OF DRILLER /	PRINT SIGHNEE NAME
		Conky Glenn
		8/1/14

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/08/2012)	
FILE NUMBER	CP-1349	POD NUMBER	1
LOCATION	215.33E.27.231		PAGE 2 of 2



## APPENDIX B

### Lithologic Soil Sampling Logs

 <b>ENSOLUM</b>								Sample Name: DS01	Date: 5/9/2025	
								Site Name: Pygmy 27 State 3H		
								Incident Number: NAPP2509657158		
								Job Number: 03D2024351		
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Tabitha Guadian	Method: Hand Auger	
Coordinates: 32.456427, -103.557747								Hole Diameter: 4"	Total Depth: 1'	
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		
D	<162.4	9.7	N	DS01	0.5	0.5	CCHE	Caliche, well graded, some hydrocarbon odor		
M	<162.4	1.2	N	DS01	1	1	CCHE	Caliche, well graded, no odor.		
								Total Depth 1'		



**ENSOLUM**

Sample Name: DS02	Date: 5/9/2025
Site Name: Pygmy 27 State 3H	
Incident Number: NAPP2509657158	
Job Number: 03D2024351	

**LITHOLOGIC / SOIL SAMPLING LOG**

Logged By: Tabitha Guardian      Method: Hand Auger

Coordinates: 32.456181, -103.557727

Hole Diameter: 4"

Total Depth: 3'

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
D	<162.4	804.3	N	DS02	0.5		CCHE	Caliche, well graded, strong hydrocarbon odor
M	<162.4	109.3	N		1	1	CCHE	Caliche, well graded, strong hydrocarbon odor.
M	<162.4	21.0	N		2	2	SP	Red/brown sand, fine grained, strong hydrocarbon odor.
D	<162.4	5.7	N	DS02	3	3	SP	Red/brown sand, fine grained, no hydrocarbon odor.
								Total Depth 3'

 <b>ENSOLUM</b>								Sample Name: DS03	Date: 5/9/2025	
								Site Name: Pygmy 27 State 3H		
								Incident Number: NAPP2509657158		
								Job Number: 03D2024351		
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Tabitha Guadian	Method: Hand Auger	
Coordinates: 32.456518, -103.557880								Hole Diameter: 4"	Total Depth: 0.5'	
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		
D	364	0.0	N	DS03	0.5	0.5 1	CCHE CCHE	Caliche, well graded, no odor		
								Refusal at 1' Total Depth 0.5'		

 <b>ENSOLUM</b>								Sample Name: DS04	Date: 5/9/2025	
								Site Name: Pygmy 27 State 3H		
								Incident Number: NAPP2509657158		
								Job Number: 03D2024351		
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Tabitha Guadian	Method: Hand Auger	
Coordinates: 32.456854, -103.557795								Hole Diameter: 4"	Total Depth: 1'	
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		
D	<162.4	0.0	N	DS04	0.5	0.5	CCHE	Caliche, well graded, no odor.		
D	<162.4	0.0	N	DS04	1	1	CCHE	Caliche, well graded, no odor. Total Depth 1'		

 <b>ENSOLUM</b>								Sample Name: DS05	Date: 5/9/2025
								Site Name: Pygmy 27 State 3H	
								Incident Number: NAPP2509657158	
								Job Number: 03D2024351	
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Tabitha Guadian	Method: Hand Auger
Coordinates: 32.456432, -103.557648								Hole Diameter: 4"	Total Depth: 1'
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	
D	235.2	0.0	N	DS05	0.5	0.5	SW	Brown sand, well graded, no odor.	
D	162.4	0.0	N	DS05	1	1	SW	Brown sand, well graded, no odor. Total Depth 1'	

 <b>ENSOLUM</b>							Sample Name: DS06	Date: 5/9/2025	
							Site Name: Pygmy 27 State 3H		
							Incident Number: NAPP2509657158		
							Job Number: 03D2024351		
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Tabitha Guadian		Method: Hand Auger		
Coordinates: 32.456027, -103.557759					Hole Diameter: 4"		Total Depth: 1'		
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	
D	414.4	0.0	N	DS06	0.5	0.5	CCHE	Caliche, well graded, no odor.	
D	515.2	0.0	N	DS06	1	1	CCHE	Caliche, well graded, no odor. Total Depth 1'	

 <b>ENSOLUM</b>								Sample Name: DS07	Date: 5/9/2025
Site Name: Pygmy 27 State 3H									
Incident Number: NAPP2509657158									
Job Number: 03D2024351									
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Tabitha Guadian		Method: Hand Auger		
Coordinates: 32.456196, -103.557857					Hole Diameter: 4"		Total Depth: 0.5'		
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	
D	<162.4	0.0	N	DS07	0.5	0.5	CCHE	Caliche, well graded, no odor. Refusal at 0.5' Total Depth 0.5'	

 <b>ENSOLUM</b>							Sample Name: DS08	Date: 5/9/2025					
							Site Name: Pygmy 27 State 3H						
							Incident Number: NAPP2509657158						
							Job Number: 03D2024351						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Tabitha Guadian	Method: Hand Auger					
Coordinates: 32.456202, -103.557678							Hole Diameter: 4"	Total Depth: 3'					
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					
D	<162.4	0.0	N	DS08	0.5	0.5	SW	Light brown sand, well graded, no odor.					
D	<162.4	0.0	N			1	SW	Light brown sand, well graded, no odor.					
D	<62.4	0.0	N			2	SW	Light brown sand, well graded, no odor.					
D	<162.4	0.0	N	DS08	3	3	SP	Red/brown sand, fine grained, no odor.					
								Total Depth 3'					



## APPENDIX C

### Photographic Log

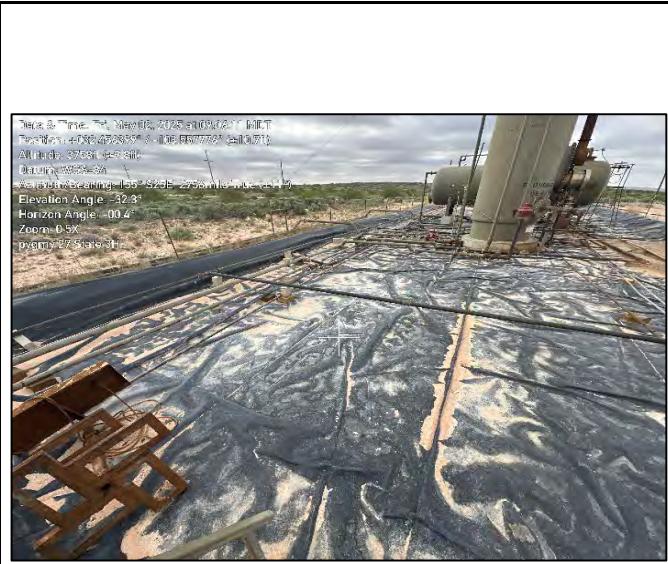


### Photographic Log

COG Operating, LLC

Pygmy 27 State Com 3H

NAPP2509657158



Photograph: 1

Date: 05/02/2025

Description: Well location sign  
 View: Northeast

Date: 05/02/2025

Photograph: 2

Description: Liner inspection activities  
 View: Southeast



Photograph: 3

Date: 05/02/2025

Description: Liner inspection activities  
 View: Southwest

Date: 05/02/2025

Photograph: 4

Description: Liner inspection activities  
 View: Southeast

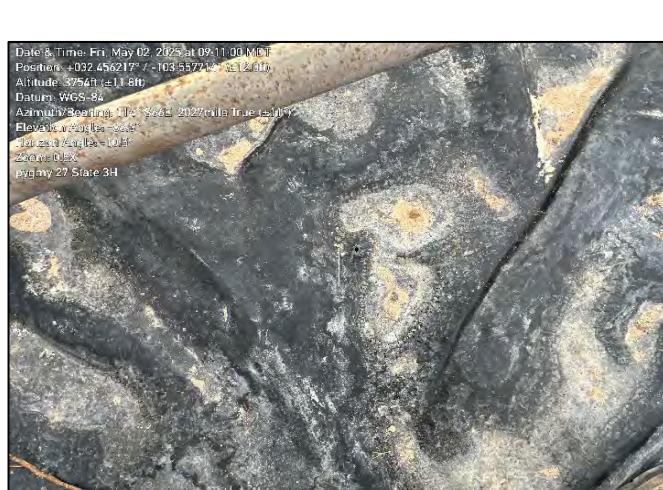


### Photographic Log

COG Operating, LLC

Pygmy 27 State Com 3H

NAPP2509657158

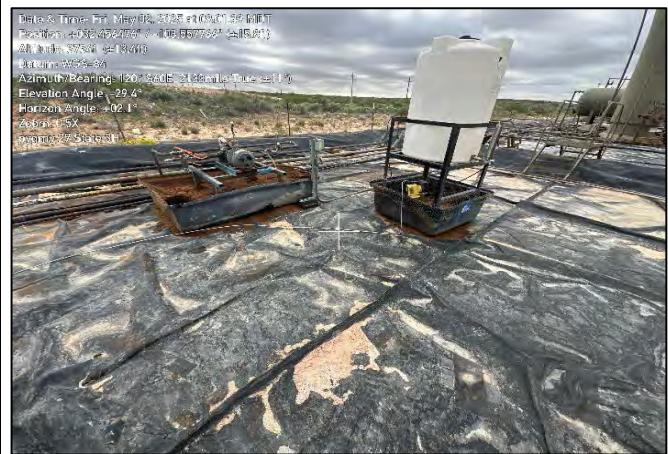


Photograph: 5

Date: 05/02/2025

Description: Compromised liner

View: Southeast



Photograph: 6

Date: 05/02/2025

Description: Liner inspection activities

View: Southeast



Photograph: 7

Date: 05/02/2025

Description: Compromised liner

View: Northwest



Photograph: 8

Date: 05/02/2025

Description: Liner inspection activities

View: Southeast

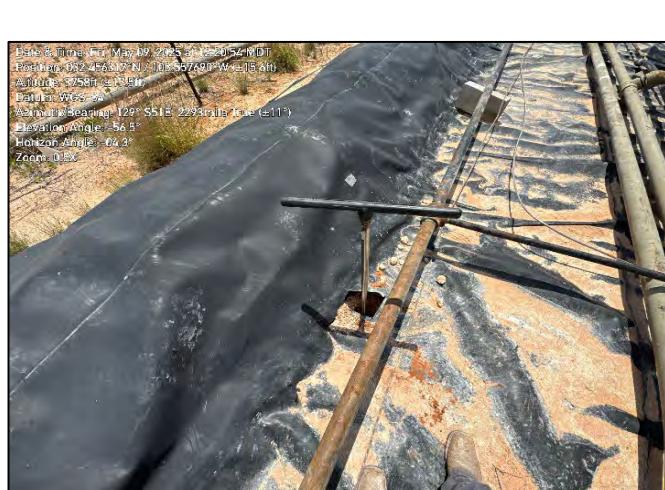


### Photographic Log

COG Operating, LLC

Pygmy 27 State Com 3H

NAPP2509657158



Photograph: 9

Date: 05/09/2025

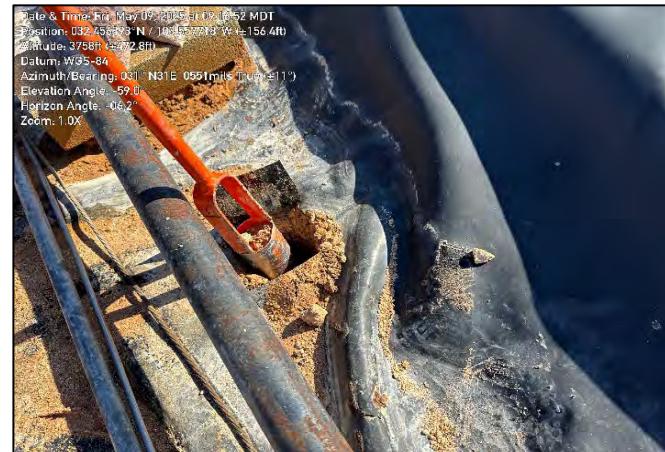
Description: Delineation activities  
View: Southeast



Photograph: 10

Date: 05/09/2025

Description: Delineation activities  
View: Southeast



Photograph: 11

Date: 05/09/2025

Description: Delineation activities  
View: Northeast



Photograph: 12

Date: 05/09/2025

Description: Delineation activities  
View: Southeast

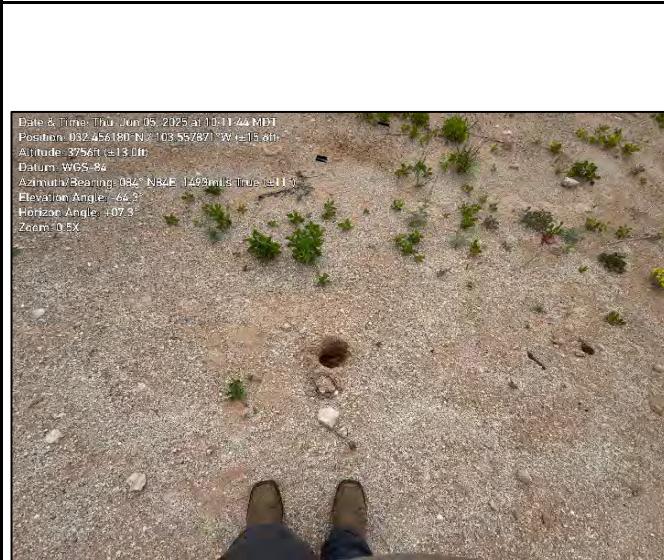


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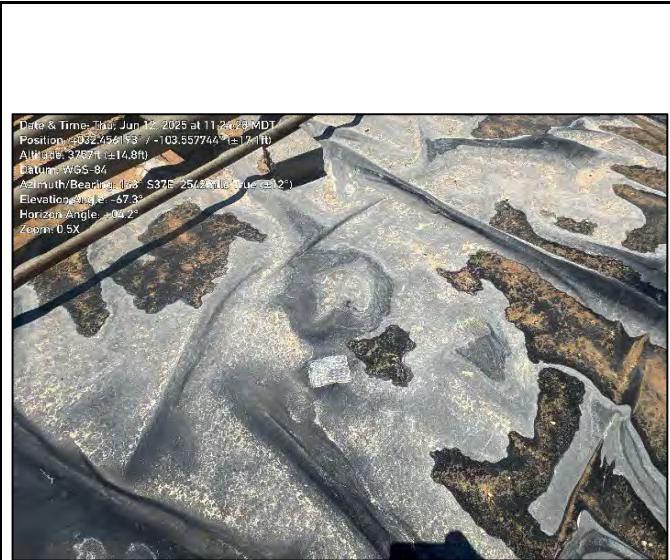
COG Operating, LLC

Pygmy 27 State Com 3H

NAPP2509657158



Date & Time: Thu Jun 05 2025 at 11:11:44 MDT  
 Position: 032 456.00 N / 103 557.87 W ( $\pm 1.5$  m)  
 Altitude: 375.61 ( $\pm 13.0$  ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 032° N34E 1493m True ( $\pm 1.1$ °)  
 Elevation Angle: -65.3°  
 Horizon Angle: +07.3°  
 Zoom: 0.5X



Date & Time: Thu Jun 12 2025 at 11:24:28 MDT  
 Position: 032 456.13 N / 103 557.74 W ( $\pm 1.7$  m)  
 Altitude: 375.11 ( $\pm 14.8$  ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 032° S37E 254.2m True ( $\pm 1.2$ °)  
 Elevation Angle: -47.3°  
 Horizon Angle: +04.2°  
 Zoom: 0.5X

Photograph: 13 Date: 06/05/2025  
 Description: Delineation activities  
 View: Northeast

Photograph: 14 Date: 06/12/2025  
 Description: Patched liner  
 View: Southeast



Date & Time: Thu Jun 12 2025 at 11:24:37 MDT  
 Position: 032 456.17 N / 103 557.71 W ( $\pm 17.8$  ft)  
 Altitude: 375.71 ( $\pm 15.4$  ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 179° S31E 249m True ( $\pm 1.2$ °)  
 Elevation Angle: -75.8°  
 Horizon Angle: +17.5°  
 Zoom: 0.5X



Date & Time: Thu Jun 12 2025 at 11:24:56 MDT  
 Position: 032 456.18 N / 103 557.76 W ( $\pm 22.1$  ft)  
 Altitude: 375.81 ( $\pm 18.7$  ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 075° N75E 1393m True ( $\pm 12.0$ °)  
 Elevation Angle: -61.4°  
 Horizon Angle: +03.6°  
 Zoom: 0.5X

Photograph: 15 Date: 06/12/2025  
 Description: Patched liner  
 View: Southeast

Photograph: 16 Date: 06/12/2025  
 Description: Patched liner  
 View: Northeast



### Photographic Log

COG Operating, LLC

Pygmy 27 State Com 3H

NAPP2509657158



Photograph: 17

Date: 10/29/2025

Description: Excavation activities  
 View: Northeast

Date: 10/29/2025

Photograph: 18

Description: Excavation activities  
 View: Southeast



Photograph: 19

Date: 10/29/2025

Description: Excavation activities  
 View: Northeast

Date: 10/29/2025

Photograph: 20

Description: Excavation activities  
 View: Northeast



### Photographic Log

COG Operating, LLC

Pygmy 27 State Com 3H

NAPP2509657158



Photograph: 21

Date: 10/29/2025

Description: Backfill activities

View: Southeast



Photograph: 22

Date: 10/29/2025

Description: Backfill activities

View: Southeast



Photograph: 23

Date: 10/29/2025

Description: Patched liner

View: Northeast



Photograph: 24

Date: 10/29/2025

Description: Backfilled liner

View: Northeast



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## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

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Environment Testing

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13

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 5/14/2025 12:59:12 PM

## JOB DESCRIPTION

Pygmy 27 State 3H

Lea County

## JOB NUMBER

880-57988-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

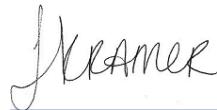
# Eurofins Midland

## 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  
5/14/2025 12:59:12 PM

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: Pygmy 27 State 3H

Laboratory Job ID: 880-57988-1  
SDG: Lea County

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
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

## Case Narrative

Client: Ensolum  
Project: Pygmy 27 State 3H

Job ID: 880-57988-1

**Job ID: 880-57988-1****Eurofins Midland**

### Job Narrative 880-57988-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

### **Receipt**

The samples were received on 5/9/2025 4:57 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 2.5°C.

### **Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: DS01 (880-57988-1), DS01 (880-57988-2), DS02 (880-57988-3), DS02 (880-57988-4), DS03 (880-57988-5), DS04 (880-57988-6), DS04 (880-57988-7), DS05 (880-57988-8), DS05 (880-57988-9), DS06 (880-57988-10), DS06 (880-57988-11), DS07 (880-57988-12), DS08 (880-57988-13) and DS08 (880-57988-14).

### **GC VOA**

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-109922 and analytical batch 880-109913 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: DS01 (880-57988-1), DS02 (880-57988-3) and (880-56959-A-16-F MDLV). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-109922 and analytical batch 880-109913 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: DS05 (880-57988-8), DS05 (880-57988-9) and DS06 (880-57988-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-109926 and analytical batch 880-109915 was outside the control limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-109924 and analytical batch 880-109915 was outside the control limits.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-109926 and analytical batch 880-109915 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

### **Diesel Range Organics**

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: DS02 (880-57988-3). 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: DS01 (880-57988-1). Evidence of matrix interferences is not obvious.

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**Case Narrative**

Client: Ensolum  
Project: Pygmy 27 State 3H

Job ID: 880-57988-1

**Job ID: 880-57988-1 (Continued)****Eurofins Midland**

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: DS01 (880-57988-2), DS03 (880-57988-5), DS04 (880-57988-6), DS05 (880-57988-9), DS06 (880-57988-10), (880-57988-A-1-B MS) and (880-57988-A-1-C 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**

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: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS01**  
Date Collected: 05/09/25 10:10  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-1**  
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	05/12/25 08:52	05/12/25 12:26		1
Toluene	<0.00202	U F1	0.00202	mg/Kg	05/12/25 08:52	05/12/25 12:26		1
Ethylbenzene	<0.00202	U F1	0.00202	mg/Kg	05/12/25 08:52	05/12/25 12:26		1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg	05/12/25 08:52	05/12/25 12:26		1
o-Xylene	<0.00202	U	0.00202	mg/Kg	05/12/25 08:52	05/12/25 12:26		1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg	05/12/25 08:52	05/12/25 12:26		1
<b>Surrogate</b>				<b>Prepared</b>		<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	156	S1+	70 - 130		05/12/25 08:52	05/12/25 12:26		1
1,4-Difluorobenzene (Surr)	95		70 - 130		05/12/25 08:52	05/12/25 12:26		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			05/12/25 12:26	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			05/13/25 11:38	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	05/12/25 07:59	05/13/25 11:38		1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	05/12/25 07:59	05/13/25 11:38		1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	05/12/25 07:59	05/13/25 11:38		1
<b>Surrogate</b>				<b>Prepared</b>		<b>Analyzed</b>	<b>Dil Fac</b>	
1-Chlorooctane	137	S1+	70 - 130		05/12/25 07:59	05/13/25 11:38		1
<i>o</i> -Terphenyl	149	S1+	70 - 130		05/12/25 07:59	05/13/25 11:38		1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		9.98	mg/Kg			05/12/25 16:00	1

**Client Sample ID: DS01**

Date Collected: 05/09/25 10:15  
Date Received: 05/09/25 16:57  
Sample Depth: 1'

**Lab Sample ID: 880-57988-2**  
Matrix: Solid

**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	05/12/25 08:52	05/12/25 12:55		1
Toluene	<0.00201	U	0.00201	mg/Kg	05/12/25 08:52	05/12/25 12:55		1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg	05/12/25 08:52	05/12/25 12:55		1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg	05/12/25 08:52	05/12/25 12:55		1
o-Xylene	<0.00201	U	0.00201	mg/Kg	05/12/25 08:52	05/12/25 12:55		1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg	05/12/25 08:52	05/12/25 12:55		1
<b>Surrogate</b>				<b>Prepared</b>		<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	101		70 - 130		05/12/25 08:52	05/12/25 12:55		1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS01**  
Date Collected: 05/09/25 10:15  
Date Received: 05/09/25 16:57  
Sample Depth: 1'

**Lab Sample ID: 880-57988-2**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	117		70 - 130	05/12/25 08:52	05/12/25 12:55	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			05/12/25 12:55	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			05/13/25 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		05/12/25 07:59	05/13/25 12:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/12/25 07:59	05/13/25 12:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/12/25 07:59	05/13/25 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	05/12/25 07:59	05/13/25 12:23	1
o-Terphenyl	132	S1+	70 - 130	05/12/25 07:59	05/13/25 12:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.7		9.94	mg/Kg			05/12/25 16:15	1

**Client Sample ID: DS02****Lab Sample ID: 880-57988-3**

Matrix: Solid

Date Collected: 05/09/25 10:30

Date Received: 05/09/25 16:57

Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.193		0.0505	mg/Kg		05/12/25 08:52	05/12/25 15:59	25
Toluene	1.60		0.0505	mg/Kg		05/12/25 08:52	05/12/25 15:59	25
Ethylbenzene	0.575		0.0505	mg/Kg		05/12/25 08:52	05/12/25 15:59	25
m-Xylene & p-Xylene	1.95		0.101	mg/Kg		05/12/25 08:52	05/12/25 15:59	25
o-Xylene	0.681		0.0505	mg/Kg		05/12/25 08:52	05/12/25 15:59	25
Xylenes, Total	2.63		0.101	mg/Kg		05/12/25 08:52	05/12/25 15:59	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	05/12/25 08:52	05/12/25 15:59	25
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130	05/12/25 08:52	05/12/25 15:59	25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	5.00		0.101	mg/Kg			05/12/25 15:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1720		49.8	mg/Kg			05/13/25 12:37	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS02**  
Date Collected: 05/09/25 10:30  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-3**  
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	256		49.8	mg/Kg		05/12/25 07:59	05/13/25 12:37	1
Diesel Range Organics (Over C10-C28)	1460		49.8	mg/Kg		05/12/25 07:59	05/13/25 12:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/12/25 07:59	05/13/25 12:37	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	118		70 - 130			05/12/25 07:59	05/13/25 12:37	1
o-Terphenyl	151	S1+	70 - 130			05/12/25 07:59	05/13/25 12:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	127		10.1	mg/Kg			05/12/25 16:20	1

**Client Sample ID: DS02**  
Date Collected: 05/09/25 11:20  
Date Received: 05/09/25 16:57  
Sample Depth: 3'

**Lab Sample ID: 880-57988-4**  
Matrix: Solid

**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		05/12/25 08:52	05/12/25 13:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/12/25 08:52	05/12/25 13:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/12/25 08:52	05/12/25 13:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/12/25 08:52	05/12/25 13:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/12/25 08:52	05/12/25 13:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/12/25 08:52	05/12/25 13:16	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)	123		70 - 130			05/12/25 08:52	05/12/25 13:16	1
1,4-Difluorobenzene (Surr)	110		70 - 130			05/12/25 08:52	05/12/25 13:16	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			05/12/25 13:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	56.9		49.9	mg/Kg			05/13/25 12:52	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		05/12/25 07:59	05/13/25 12:52	1
Diesel Range Organics (Over C10-C28)	56.9		49.9	mg/Kg		05/12/25 07:59	05/13/25 12:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/12/25 07:59	05/13/25 12:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	116		70 - 130			05/12/25 07:59	05/13/25 12:52	1
o-Terphenyl	130		70 - 130			05/12/25 07:59	05/13/25 12:52	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS02**  
Date Collected: 05/09/25 11:20  
Date Received: 05/09/25 16:57  
Sample Depth: 3'

**Lab Sample ID: 880-57988-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	127		10.0	mg/Kg			05/12/25 16:25	1

**Client Sample ID: DS03**  
Date Collected: 05/09/25 12:36  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-5**  
Matrix: Solid

**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		05/12/25 08:52	05/12/25 13:36	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/12/25 08:52	05/12/25 13:36	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/12/25 08:52	05/12/25 13:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/12/25 08:52	05/12/25 13:36	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/12/25 08:52	05/12/25 13:36	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/12/25 08:52	05/12/25 13:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			05/12/25 08:52	05/12/25 13:36	1
1,4-Difluorobenzene (Surr)	94		70 - 130			05/12/25 08:52	05/12/25 13:36	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			05/12/25 13:36	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			05/13/25 13:07	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		05/12/25 07:59	05/13/25 13:07	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		05/12/25 07:59	05/13/25 13:07	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		05/12/25 07:59	05/13/25 13:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			05/12/25 07:59	05/13/25 13:07	1
<i>o</i> -Terphenyl	131	S1+	70 - 130			05/12/25 07:59	05/13/25 13:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	601		9.98	mg/Kg			05/12/25 16:31	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS04**  
Date Collected: 05/09/25 11:20  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-6**  
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	05/12/25 09:27	05/12/25 22:46		1
Toluene	<0.00202	U F1	0.00202	mg/Kg	05/12/25 09:27	05/12/25 22:46		1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg	05/12/25 09:27	05/12/25 22:46		1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg	05/12/25 09:27	05/12/25 22:46		1
<b>o-Xylene</b>	<b>0.00204</b>		0.00202	mg/Kg	05/12/25 09:27	05/12/25 22:46		1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg	05/12/25 09:27	05/12/25 22:46		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)	102		70 - 130			05/12/25 09:27	05/12/25 22:46	
1,4-Difluorobenzene (Surr)	80		70 - 130			05/12/25 09:27	05/12/25 22:46	

**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			05/12/25 22:46	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			05/13/25 13:22	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	05/12/25 07:59	05/13/25 13:22		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	05/12/25 07:59	05/13/25 13:22		1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	05/12/25 07:59	05/13/25 13:22		1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	119		70 - 130			05/12/25 07:59	05/13/25 13:22	
<i>o</i> -Terphenyl	131	S1+	70 - 130			05/12/25 07:59	05/13/25 13:22	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	99.2		10.0	mg/Kg			05/12/25 16:46	1

**Client Sample ID: DS04**  
Date Collected: 05/09/25 11:25  
Date Received: 05/09/25 16:57  
Sample Depth: 1'

**Lab Sample ID: 880-57988-7**  
Matrix: Solid

**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	05/12/25 09:27	05/12/25 23:06		1
Toluene	<0.00201	U	0.00201	mg/Kg	05/12/25 09:27	05/12/25 23:06		1
<b>Ethylbenzene</b>	<b>0.00412</b>		0.00201	mg/Kg	05/12/25 09:27	05/12/25 23:06		1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg	05/12/25 09:27	05/12/25 23:06		1
<i>o</i> -Xylene	<0.00201	U	0.00201	mg/Kg	05/12/25 09:27	05/12/25 23:06		1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg	05/12/25 09:27	05/12/25 23:06		1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	90		70 - 130			05/12/25 09:27	05/12/25 23:06	

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS04**  
Date Collected: 05/09/25 11:25  
Date Received: 05/09/25 16:57  
Sample Depth: 1'

**Lab Sample ID: 880-57988-7**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	70		70 - 130	05/12/25 09:27	05/12/25 23:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00412		0.00402	mg/Kg			05/12/25 23:06	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			05/13/25 13:37	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		05/12/25 07:59	05/13/25 13:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/12/25 07:59	05/13/25 13:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/12/25 07:59	05/13/25 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	05/12/25 07:59	05/13/25 13:37	1
o-Terphenyl	127		70 - 130	05/12/25 07:59	05/13/25 13:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.1		9.98	mg/Kg			05/12/25 16:51	1

**Client Sample ID: DS05****Lab Sample ID: 880-57988-8**

Matrix: Solid

Date Collected: 05/09/25 12:05

Date Received: 05/09/25 16:57

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		05/12/25 09:27	05/12/25 23:27	1
Toluene	0.00217		0.00202	mg/Kg		05/12/25 09:27	05/12/25 23:27	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		05/12/25 09:27	05/12/25 23:27	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		05/12/25 09:27	05/12/25 23:27	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		05/12/25 09:27	05/12/25 23:27	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		05/12/25 09:27	05/12/25 23:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	05/12/25 09:27	05/12/25 23:27	1
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130	05/12/25 09:27	05/12/25 23:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			05/12/25 23:27	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			05/13/25 13:52	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS05**  
Date Collected: 05/09/25 12:05  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-8**  
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	<49.9	U	49.9	mg/Kg		05/12/25 07:59	05/13/25 13:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/12/25 07:59	05/13/25 13:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/12/25 07:59	05/13/25 13:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			05/12/25 07:59	05/13/25 13:52	1
o-Terphenyl	122		70 - 130			05/12/25 07:59	05/13/25 13:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	281		9.96	mg/Kg			05/12/25 16:57	1

**Client Sample ID: DS05**  
Date Collected: 05/09/25 12:10  
Date Received: 05/09/25 16:57  
Sample Depth: 1'

**Lab Sample ID: 880-57988-9**  
Matrix: Solid

**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		05/12/25 09:27	05/12/25 23:48	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/12/25 09:27	05/12/25 23:48	1
<b>Ethylbenzene</b>	<b>0.00394</b>		0.00199	mg/Kg		05/12/25 09:27	05/12/25 23:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/12/25 09:27	05/12/25 23:48	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/12/25 09:27	05/12/25 23:48	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/12/25 09:27	05/12/25 23:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			05/12/25 09:27	05/12/25 23:48	1
1,4-Difluorobenzene (Surr)	65	S1-	70 - 130			05/12/25 09:27	05/12/25 23:48	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			05/12/25 23:48	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			05/13/25 14:07	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		05/12/25 07:59	05/13/25 14:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/12/25 07:59	05/13/25 14:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/12/25 07:59	05/13/25 14:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130			05/12/25 07:59	05/13/25 14:07	1
o-Terphenyl	137	S1+	70 - 130			05/12/25 07:59	05/13/25 14:07	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS05**  
Date Collected: 05/09/25 12:10  
Date Received: 05/09/25 16:57  
Sample Depth: 1'

**Lab Sample ID: 880-57988-9**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	366		10.1	mg/Kg			05/12/25 17:02	1

**Client Sample ID: DS06**  
Date Collected: 05/09/25 10:55  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-10**  
Matrix: Solid

**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		05/12/25 09:27	05/13/25 00:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/12/25 09:27	05/13/25 00:08	1
<b>Ethylbenzene</b>	<b>0.00423</b>		0.00199	mg/Kg		05/12/25 09:27	05/13/25 00:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/12/25 09:27	05/13/25 00:08	1
<b><i>o</i>-Xylene</b>	<b>0.00213</b>		0.00199	mg/Kg		05/12/25 09:27	05/13/25 00:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/12/25 09:27	05/13/25 00:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			05/12/25 09:27	05/13/25 00:08	1
1,4-Difluorobenzene (Surr)	65	S1-	70 - 130			05/12/25 09:27	05/13/25 00:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.00636</b>		0.00398	mg/Kg			05/13/25 00:08	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			05/13/25 14:22	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		05/12/25 07:59	05/13/25 14:22	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/12/25 07:59	05/13/25 14:22	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/12/25 07:59	05/13/25 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			05/12/25 07:59	05/13/25 14:22	1
<i>o</i> -Terphenyl	132	S1+	70 - 130			05/12/25 07:59	05/13/25 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	589		10.0	mg/Kg			05/12/25 17:07	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-57988-1  
SDG: Lea CountyClient Sample ID: DS06  
Date Collected: 05/09/25 11:00  
Date Received: 05/09/25 16:57  
Sample Depth: 1'Lab Sample ID: 880-57988-11  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00224		0.00200	mg/Kg		05/12/25 09:27	05/13/25 00:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/12/25 09:27	05/13/25 00:29	1
Ethylbenzene	0.00370		0.00200	mg/Kg		05/12/25 09:27	05/13/25 00:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		05/12/25 09:27	05/13/25 00:29	1
<b>o-Xylene</b>	<b>0.00276</b>		0.00200	mg/Kg		05/12/25 09:27	05/13/25 00:29	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		05/12/25 09:27	05/13/25 00:29	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)	100		70 - 130			05/12/25 09:27	05/13/25 00:29	1
1,4-Difluorobenzene (Surr)	72		70 - 130			05/12/25 09:27	05/13/25 00:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.00870</b>		0.00401	mg/Kg			05/13/25 00:29	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			05/13/25 14:52	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		05/12/25 07:59	05/13/25 14:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/12/25 07:59	05/13/25 14:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/12/25 07:59	05/13/25 14:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	115		70 - 130			05/12/25 07:59	05/13/25 14:52	1
<i>o</i> -Terphenyl	124		70 - 130			05/12/25 07:59	05/13/25 14:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>760</b>		9.98	mg/Kg			05/12/25 17:12	1

Client Sample ID: DS07

Lab Sample ID: 880-57988-12

Date Collected: 05/09/25 12:40

Matrix: Solid

Date Received: 05/09/25 16:57

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		05/12/25 09:27	05/13/25 00:49	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/12/25 09:27	05/13/25 00:49	1
<b>Ethylbenzene</b>	<b>0.00247</b>		0.00201	mg/Kg		05/12/25 09:27	05/13/25 00:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/12/25 09:27	05/13/25 00:49	1
<b><i>o</i>-Xylene</b>	<b>0.00236</b>		0.00201	mg/Kg		05/12/25 09:27	05/13/25 00:49	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/12/25 09:27	05/13/25 00:49	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)	114		70 - 130			05/12/25 09:27	05/13/25 00:49	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS07**  
Date Collected: 05/09/25 12:40  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-12**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	05/12/25 09:27	05/13/25 00:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00483		0.00402	mg/Kg			05/13/25 00:49	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			05/13/25 15:07	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		05/12/25 07:59	05/13/25 15:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/12/25 07:59	05/13/25 15:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/12/25 07:59	05/13/25 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	05/12/25 07:59	05/13/25 15:07	1
o-Terphenyl	117		70 - 130	05/12/25 07:59	05/13/25 15:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.8		10.1	mg/Kg			05/12/25 17:28	1

**Client Sample ID: DS08****Lab Sample ID: 880-57988-13**

Matrix: Solid

Date Collected: 05/09/25 11:10  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00223		0.00202	mg/Kg		05/12/25 09:27	05/13/25 01:10	1
Toluene	<0.00202	U	0.00202	mg/Kg		05/12/25 09:27	05/13/25 01:10	1
Ethylbenzene	0.00354		0.00202	mg/Kg		05/12/25 09:27	05/13/25 01:10	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		05/12/25 09:27	05/13/25 01:10	1
o-Xylene	0.00354		0.00202	mg/Kg		05/12/25 09:27	05/13/25 01:10	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		05/12/25 09:27	05/13/25 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	05/12/25 09:27	05/13/25 01:10	1
1,4-Difluorobenzene (Surr)	76		70 - 130	05/12/25 09:27	05/13/25 01:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00931		0.00404	mg/Kg			05/13/25 01:10	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			05/13/25 15:22	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

**Client Sample ID: DS08**  
Date Collected: 05/09/25 11:10  
Date Received: 05/09/25 16:57  
Sample Depth: 0.5'

**Lab Sample ID: 880-57988-13**  
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	<49.8	U	49.8	mg/Kg	05/12/25 07:59	05/13/25 15:22		1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	05/12/25 07:59	05/13/25 15:22		1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	05/12/25 07:59	05/13/25 15:22		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			05/12/25 07:59	05/13/25 15:22	1
o-Terphenyl	117		70 - 130			05/12/25 07:59	05/13/25 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		10.0	mg/Kg			05/12/25 17:33	1

**Client Sample ID: DS08**  
Date Collected: 05/09/25 11:15  
Date Received: 05/09/25 16:57  
Sample Depth: 3'

**Lab Sample ID: 880-57988-14**  
Matrix: Solid

**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	05/12/25 09:27	05/13/25 03:25		1
Toluene	<0.00198	U	0.00198	mg/Kg	05/12/25 09:27	05/13/25 03:25		1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg	05/12/25 09:27	05/13/25 03:25		1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg	05/12/25 09:27	05/13/25 03:25		1
o-Xylene	<0.00198	U	0.00198	mg/Kg	05/12/25 09:27	05/13/25 03:25		1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg	05/12/25 09:27	05/13/25 03:25		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130			05/12/25 09:27	05/13/25 03:25	1
1,4-Difluorobenzene (Surr)	70		70 - 130			05/12/25 09:27	05/13/25 03:25	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			05/13/25 03:25	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			05/13/25 15:38	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	05/12/25 07:59	05/13/25 15:38		1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg	05/12/25 07:59	05/13/25 15:38		1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg	05/12/25 07:59	05/13/25 15:38		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			05/12/25 07:59	05/13/25 15:38	1
o-Terphenyl	119		70 - 130			05/12/25 07:59	05/13/25 15:38	1

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## Client Sample Results

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
 SDG: Lea County

**Client Sample ID: DS08**  
 Date Collected: 05/09/25 11:15  
 Date Received: 05/09/25 16:57  
 Sample Depth: 3'

**Lab Sample ID: 880-57988-14**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		9.98	mg/Kg			05/12/25 17:49	1

## Surrogate Summary

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
 SDG: Lea County

## 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)										
880-57988-1	DS01	156 S1+	95										
880-57988-1 MS	DS01	107	98										
880-57988-1 MSD	DS01	106	102										
880-57988-2	DS01	101	117										
880-57988-3	DS02	90	68 S1-										
880-57988-4	DS02	123	110										
880-57988-5	DS03	96	94										
880-57988-6	DS04	102	80										
880-57988-6 MS	DS04	110	92										
880-57988-6 MSD	DS04	100	96										
880-57988-7	DS04	90	70										
880-57988-8	DS05	84	63 S1-										
880-57988-9	DS05	89	65 S1-										
880-57988-10	DS06	105	65 S1-										
880-57988-11	DS06	100	72										
880-57988-12	DS07	114	94										
880-57988-13	DS08	94	76										
880-57988-14	DS08	92	70										
LCS 880-109922/1-A	Lab Control Sample	101	103										
LCS 880-109926/1-A	Lab Control Sample	120	94										
LCSD 880-109922/2-A	Lab Control Sample Dup	111	101										
LCSD 880-109926/2-A	Lab Control Sample Dup	96	88										
MB 880-109922/5-A	Method Blank	164 S1+	92										
MB 880-109924/5-A	Method Blank	94	68 S1-										
MB 880-109926/5-A	Method Blank	100	66 S1-										

## 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)										
880-57988-1	DS01	137 S1+	149 S1+										
880-57988-1 MS	DS01	128	131 S1+										
880-57988-1 MSD	DS01	128	131 S1+										
880-57988-2	DS01	119	132 S1+										
880-57988-3	DS02	118	151 S1+										
880-57988-4	DS02	116	130										
880-57988-5	DS03	120	131 S1+										
880-57988-6	DS04	119	131 S1+										
880-57988-7	DS04	116	127										
880-57988-8	DS05	112	122										
880-57988-9	DS05	128	137 S1+										
880-57988-10	DS06	122	132 S1+										
880-57988-11	DS06	115	124										
880-57988-12	DS07	105	117										

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## Surrogate Summary

Client: Ensolum

Job ID: 880-57988-1

Project/Site: Pygmy 27 State 3H

SDG: Lea County

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Matrix: Solid****Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		1
		1CO1 (70-130)	OTPH1 (70-130)	
880-57988-13	DS08	106	117	2
880-57988-14	DS08	107	119	3
LCS 880-109910/2-A	Lab Control Sample	104	104	4
LCSD 880-109910/3-A	Lab Control Sample Dup	89	90	5
MB 880-109910/1-A	Method Blank	91	90	6

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

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

Lab Sample ID: MB 880-109922/5-A

Matrix: Solid

Analysis Batch: 109913

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 109922

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	05/12/25 08:52	05/12/25 12:00	1		
Toluene	<0.00200	U	0.00200		mg/Kg	05/12/25 08:52	05/12/25 12:00	1		
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	05/12/25 08:52	05/12/25 12:00	1		
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	05/12/25 08:52	05/12/25 12:00	1		
o-Xylene	<0.00200	U	0.00200		mg/Kg	05/12/25 08:52	05/12/25 12:00	1		
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	05/12/25 08:52	05/12/25 12:00	1		
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	164	S1+	70 - 130		05/12/25 08:52	05/12/25 12:00	1			
1,4-Difluorobenzene (Surr)	92		70 - 130		05/12/25 08:52	05/12/25 12:00	1			

Lab Sample ID: LCS 880-109922/1-A

Matrix: Solid

Analysis Batch: 109913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 109922

Analyte	Spikes	LCS	LCS	Unit	D	%Rec	Limits	
	Added	Result	Qualifier					
Benzene	0.100	0.1010		mg/Kg	101	70 - 130		
Toluene	0.100	0.08466		mg/Kg	85	70 - 130		
Ethylbenzene	0.100	0.09226		mg/Kg	92	70 - 130		
m-Xylene & p-Xylene	0.200	0.2094		mg/Kg	105	70 - 130		
o-Xylene	0.100	0.1051		mg/Kg	105	70 - 130		
Surrogate	LCS	LCS	%Recovery	Qualifier	Limits			
	Result	Qualifier						
4-Bromofluorobenzene (Surr)	101		70 - 130					
1,4-Difluorobenzene (Surr)	103		70 - 130					

Lab Sample ID: LCSD 880-109922/2-A

Matrix: Solid

Analysis Batch: 109913

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 109922

Analyte	Spikes	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Benzene	0.100	0.1008		mg/Kg	101	70 - 130	0	35	
Toluene	0.100	0.08734		mg/Kg	87	70 - 130	3	35	
Ethylbenzene	0.100	0.09937		mg/Kg	99	70 - 130	7	35	
m-Xylene & p-Xylene	0.200	0.2144		mg/Kg	107	70 - 130	2	35	
o-Xylene	0.100	0.1077		mg/Kg	108	70 - 130	3	35	
Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits				
	Result	Qualifier							
4-Bromofluorobenzene (Surr)	111		70 - 130						
1,4-Difluorobenzene (Surr)	101		70 - 130						

Lab Sample ID: 880-57988-1 MS

Matrix: Solid

Analysis Batch: 109913

Client Sample ID: DS01

Prep Type: Total/NA

Prep Batch: 109922

Analyte	Sample	Sample	Spikes	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene	<0.00202	U	0.100	0.07406		mg/Kg	74	70 - 130	
Toluene	<0.00202	U F1	0.100	0.06761	F1	mg/Kg	68	70 - 130	

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

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

Lab Sample ID: 880-57988-1 MS

Matrix: Solid

Analysis Batch: 109913

Client Sample ID: DS01  
Prep Type: Total/NA  
Prep Batch: 109922

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Ethylbenzene	<0.00202	U F1	0.100	0.06838	F1	mg/Kg	68	70 - 130	
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1504		mg/Kg	75	70 - 130	
o-Xylene	<0.00202	U	0.100	0.07804		mg/Kg	78	70 - 130	

MS MS

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-57988-1 MSD

Matrix: Solid

Analysis Batch: 109913

Client Sample ID: DS01  
Prep Type: Total/NA  
Prep Batch: 109922

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Benzene	<0.00202	U	0.100	0.08478		mg/Kg	85	70 - 130	13
Toluene	<0.00202	U F1	0.100	0.06593	F1	mg/Kg	66	70 - 130	3
Ethylbenzene	<0.00202	U F1	0.100	0.07972		mg/Kg	80	70 - 130	15
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1635		mg/Kg	82	70 - 130	8
o-Xylene	<0.00202	U	0.100	0.08430		mg/Kg	84	70 - 130	8

MSD MSD

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-109924/5-A

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 109924

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:18	05/12/25 11:26		1
Toluene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:18	05/12/25 11:26		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:18	05/12/25 11:26		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	05/12/25 09:18	05/12/25 11:26		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:18	05/12/25 11:26		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	05/12/25 09:18	05/12/25 11:26		1

MB MB

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	94		70 - 130	05/12/25 09:18	05/12/25 11:26	1
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130	05/12/25 09:18	05/12/25 11:26	1

Lab Sample ID: MB 880-109926/5-A

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 109926

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:27	05/12/25 22:24		1
Toluene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:27	05/12/25 22:24		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	05/12/25 09:27	05/12/25 22:24		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	05/12/25 09:27	05/12/25 22:24		1

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

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

Lab Sample ID: MB 880-109926/5-A

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 109926

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/12/25 09:27	05/12/25 22:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/12/25 09:27	05/12/25 22:24	1
Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	100		70 - 130	05/12/25 09:27	05/12/25 22:24	1		
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130	05/12/25 09:27	05/12/25 22:24	1		

Lab Sample ID: LCS 880-109926/1-A

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 109926

Analyte	Spike		Unit	D	%Rec		Limits
	Added	Result			%Rec		
Benzene	0.100	0.09376	mg/Kg		94		70 - 130
Toluene	0.100	0.1268	mg/Kg		127		70 - 130
Ethylbenzene	0.100	0.1242	mg/Kg		124		70 - 130
m-Xylene & p-Xylene	0.200	0.2196	mg/Kg		110		70 - 130
o-Xylene	0.100	0.1299	mg/Kg		130		70 - 130
Surrogate	LCS		Limits		%Rec		
	%Recovery	Qualifier			%Rec		
4-Bromofluorobenzene (Surr)	120		70 - 130				
1,4-Difluorobenzene (Surr)	94		70 - 130				

Lab Sample ID: LCSD 880-109926/2-A

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 109926

Analyte	Spike		Unit	D	%Rec		RPD	Limit
	Added	Result			%Rec			
Benzene	0.100	0.09744	mg/Kg		97		4	35
Toluene	0.100	0.1079	mg/Kg		108		16	35
Ethylbenzene	0.100	0.1098	mg/Kg		110		12	35
m-Xylene & p-Xylene	0.200	0.1824	mg/Kg		91		19	35
o-Xylene	0.100	0.1071	mg/Kg		107		19	35
Surrogate	LCSD		Limits		%Rec		RPD	Limit
	%Recovery	Qualifier			%Rec			
4-Bromofluorobenzene (Surr)	96		70 - 130					
1,4-Difluorobenzene (Surr)	88		70 - 130					

Lab Sample ID: 880-57988-6 MS

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: DS04

Prep Type: Total/NA

Prep Batch: 109926

Analyte	Sample		Spike	MS		Unit	D	%Rec	
	Result	Qualifier		Added	Result			%Rec	
Benzene	<0.00202	U	0.100	0.08301		mg/Kg		83	70 - 130
Toluene	<0.00202	U F1	0.100	0.06417	F1	mg/Kg		64	70 - 130
Ethylbenzene	<0.00202	U	0.100	0.09004		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1625		mg/Kg		81	70 - 130
o-Xylene	0.00204		0.100	0.09663		mg/Kg		95	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

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

Lab Sample ID: 880-57988-6 MS

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: DS04  
Prep Type: Total/NA  
Prep Batch: 109926

Surrogate	MS	MS	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110				70 - 130
1,4-Difluorobenzene (Surr)	92				70 - 130

Lab Sample ID: 880-57988-6 MSD

Matrix: Solid

Analysis Batch: 109915

Client Sample ID: DS04  
Prep Type: Total/NA  
Prep Batch: 109926

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Added	Result						
Benzene	<0.00202	U	0.100	0.08572		mg/Kg	86	70 - 130	3	35	10
Toluene	<0.00202	U F1	0.100	0.07309		mg/Kg	73	70 - 130	13	35	11
Ethylbenzene	<0.00202	U	0.100	0.08411		mg/Kg	84	70 - 130	7	35	12
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1511		mg/Kg	76	70 - 130	7	35	13
o-Xylene	0.00204		0.100	0.08832		mg/Kg	86	70 - 130	9	35	

Surrogate	MSD	MSD	%Recovery	RPD
	%Recovery	Qualifier	Limits	Limit
4-Bromofluorobenzene (Surr)	100		70 - 130	
1,4-Difluorobenzene (Surr)	96		70 - 130	

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

Lab Sample ID: MB 880-109910/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 110022

Prep Batch: 109910

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U			50.0	mg/Kg	05/12/25 07:59	05/13/25 09:25		1
Diesel Range Organics (Over C10-C28)	<50.0	U			50.0	mg/Kg	05/12/25 07:59	05/13/25 09:25		1
Oil Range Organics (Over C28-C36)	<50.0	U			50.0	mg/Kg	05/12/25 07:59	05/13/25 09:25		1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	91		70 - 130			05/12/25 07:59	05/13/25 09:25	1
o-Terphenyl	90		70 - 130			05/12/25 07:59	05/13/25 09:25	1

Lab Sample ID: LCS 880-109910/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 110022

Prep Batch: 109910

Analyte	Spike	LCS	LCS	%Rec
	Added	Result	Qualifier	Limits
Gasoline Range Organics (GRO)-C6-C10	1000	900.8		90
Diesel Range Organics (Over C10-C28)	1000	952.3		95

Surrogate	LCS	LCS	%Recovery	RPD
	%Recovery	Qualifier	Limits	Limit
1-Chlorooctane	104		70 - 130	
o-Terphenyl	104		70 - 130	

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-57988-1  
SDG: Lea County

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

Lab Sample ID: LCSD 880-109910/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 110022				Prep Batch: 109910						
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10		1000	766.7		mg/Kg		77	70 - 130	16	20
Diesel Range Organics (Over C10-C28)		1000	813.3		mg/Kg		81	70 - 130	16	20
Surrogate		LCSD %Recovery	LCSD Qualifier	LCSD Limits						
1-Chlorooctane		89		70 - 130						
o-Terphenyl		90		70 - 130						

Lab Sample ID: 880-57988-1 MS				Client Sample ID: DS01						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 110022				Prep Batch: 109910						
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	1023		mg/Kg		103	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.8	U	998	921.4		mg/Kg		90	70 - 130	
Surrogate	MS %Recovery	MS Qualifier	MS Limits							
1-Chlorooctane	128		70 - 130							
o-Terphenyl	131	S1+	70 - 130							

Lab Sample ID: 880-57988-1 MSD				Client Sample ID: DS01						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 110022				Prep Batch: 109910						
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	1017		mg/Kg		102	70 - 130	1
Diesel Range Organics (Over C10-C28)	<49.8	U	998	930.0		mg/Kg		91	70 - 130	1
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits							
1-Chlorooctane	128		70 - 130							
o-Terphenyl	131	S1+	70 - 130							

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-109985/1-A				Client Sample ID: Method Blank						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 109987										
Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<10.0	U	10.0		mg/Kg			05/12/25 15:44		1

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-109985/2-A

Matrix: Solid

Analysis Batch: 109987

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride		250	242.1		mg/Kg		97	90 - 110	

Lab Sample ID: LCSD 880-109985/3-A

Matrix: Solid

Analysis Batch: 109987

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	242.6		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 880-57988-1 MS

Matrix: Solid

Analysis Batch: 109987

Client Sample ID: DS01  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	104		250	371.4		mg/Kg		107	90 - 110	

Lab Sample ID: 880-57988-1 MSD

Matrix: Solid

Analysis Batch: 109987

Client Sample ID: DS01  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	104		250	372.9		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-57988-11 MS

Matrix: Solid

Analysis Batch: 109987

Client Sample ID: DS06  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	760		250	1004		mg/Kg		98	90 - 110	

Lab Sample ID: 880-57988-11 MSD

Matrix: Solid

Analysis Batch: 109987

Client Sample ID: DS06  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	760		250	1005		mg/Kg		98	90 - 110	0	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-57988-1  
SDG: Lea County

## GC VOA

## Analysis Batch: 109913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Total/NA	Solid	8021B	109922
880-57988-2	DS01	Total/NA	Solid	8021B	109922
880-57988-3	DS02	Total/NA	Solid	8021B	109922
880-57988-4	DS02	Total/NA	Solid	8021B	109922
880-57988-5	DS03	Total/NA	Solid	8021B	109922
MB 880-109922/5-A	Method Blank	Total/NA	Solid	8021B	109922
LCS 880-109922/1-A	Lab Control Sample	Total/NA	Solid	8021B	109922
LCSD 880-109922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	109922
880-57988-1 MS	DS01	Total/NA	Solid	8021B	109922
880-57988-1 MSD	DS01	Total/NA	Solid	8021B	109922

## Analysis Batch: 109915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-6	DS04	Total/NA	Solid	8021B	109926
880-57988-7	DS04	Total/NA	Solid	8021B	109926
880-57988-8	DS05	Total/NA	Solid	8021B	109926
880-57988-9	DS05	Total/NA	Solid	8021B	109926
880-57988-10	DS06	Total/NA	Solid	8021B	109926
880-57988-11	DS06	Total/NA	Solid	8021B	109926
880-57988-12	DS07	Total/NA	Solid	8021B	109926
880-57988-13	DS08	Total/NA	Solid	8021B	109926
880-57988-14	DS08	Total/NA	Solid	8021B	109926
MB 880-109924/5-A	Method Blank	Total/NA	Solid	8021B	109924
MB 880-109926/5-A	Method Blank	Total/NA	Solid	8021B	109926
LCS 880-109926/1-A	Lab Control Sample	Total/NA	Solid	8021B	109926
LCSD 880-109926/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	109926
880-57988-6 MS	DS04	Total/NA	Solid	8021B	109926
880-57988-6 MSD	DS04	Total/NA	Solid	8021B	109926

## Prep Batch: 109922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Total/NA	Solid	5035	
880-57988-2	DS01	Total/NA	Solid	5035	
880-57988-3	DS02	Total/NA	Solid	5035	
880-57988-4	DS02	Total/NA	Solid	5035	
880-57988-5	DS03	Total/NA	Solid	5035	
MB 880-109922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-109922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-109922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-57988-1 MS	DS01	Total/NA	Solid	5035	
880-57988-1 MSD	DS01	Total/NA	Solid	5035	

## Prep Batch: 109924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-109924/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 109926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-6	DS04	Total/NA	Solid	5035	
880-57988-7	DS04	Total/NA	Solid	5035	
880-57988-8	DS05	Total/NA	Solid	5035	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-57988-1  
SDG: Lea County

## GC VOA (Continued)

## Prep Batch: 109926 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-9	DS05	Total/NA	Solid	5035	
880-57988-10	DS06	Total/NA	Solid	5035	
880-57988-11	DS06	Total/NA	Solid	5035	
880-57988-12	DS07	Total/NA	Solid	5035	
880-57988-13	DS08	Total/NA	Solid	5035	
880-57988-14	DS08	Total/NA	Solid	5035	
MB 880-109926/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-109926/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-109926/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-57988-6 MS	DS04	Total/NA	Solid	5035	
880-57988-6 MSD	DS04	Total/NA	Solid	5035	

## Analysis Batch: 109995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Total/NA	Solid	Total BTEX	
880-57988-2	DS01	Total/NA	Solid	Total BTEX	
880-57988-3	DS02	Total/NA	Solid	Total BTEX	
880-57988-4	DS02	Total/NA	Solid	Total BTEX	
880-57988-5	DS03	Total/NA	Solid	Total BTEX	
880-57988-6	DS04	Total/NA	Solid	Total BTEX	
880-57988-7	DS04	Total/NA	Solid	Total BTEX	
880-57988-8	DS05	Total/NA	Solid	Total BTEX	
880-57988-9	DS05	Total/NA	Solid	Total BTEX	
880-57988-10	DS06	Total/NA	Solid	Total BTEX	
880-57988-11	DS06	Total/NA	Solid	Total BTEX	
880-57988-12	DS07	Total/NA	Solid	Total BTEX	
880-57988-13	DS08	Total/NA	Solid	Total BTEX	
880-57988-14	DS08	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 109910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Total/NA	Solid	8015NM Prep	
880-57988-2	DS01	Total/NA	Solid	8015NM Prep	
880-57988-3	DS02	Total/NA	Solid	8015NM Prep	
880-57988-4	DS02	Total/NA	Solid	8015NM Prep	
880-57988-5	DS03	Total/NA	Solid	8015NM Prep	
880-57988-6	DS04	Total/NA	Solid	8015NM Prep	
880-57988-7	DS04	Total/NA	Solid	8015NM Prep	
880-57988-8	DS05	Total/NA	Solid	8015NM Prep	
880-57988-9	DS05	Total/NA	Solid	8015NM Prep	
880-57988-10	DS06	Total/NA	Solid	8015NM Prep	
880-57988-11	DS06	Total/NA	Solid	8015NM Prep	
880-57988-12	DS07	Total/NA	Solid	8015NM Prep	
880-57988-13	DS08	Total/NA	Solid	8015NM Prep	
880-57988-14	DS08	Total/NA	Solid	8015NM Prep	
MB 880-109910/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-109910/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-109910/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-57988-1 MS	DS01	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-57988-1  
SDG: Lea County

## GC Semi VOA (Continued)

## Prep Batch: 109910 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1 MSD	DS01	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 110022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Total/NA	Solid	8015B NM	109910
880-57988-2	DS01	Total/NA	Solid	8015B NM	109910
880-57988-3	DS02	Total/NA	Solid	8015B NM	109910
880-57988-4	DS02	Total/NA	Solid	8015B NM	109910
880-57988-5	DS03	Total/NA	Solid	8015B NM	109910
880-57988-6	DS04	Total/NA	Solid	8015B NM	109910
880-57988-7	DS04	Total/NA	Solid	8015B NM	109910
880-57988-8	DS05	Total/NA	Solid	8015B NM	109910
880-57988-9	DS05	Total/NA	Solid	8015B NM	109910
880-57988-10	DS06	Total/NA	Solid	8015B NM	109910
880-57988-11	DS06	Total/NA	Solid	8015B NM	109910
880-57988-12	DS07	Total/NA	Solid	8015B NM	109910
880-57988-13	DS08	Total/NA	Solid	8015B NM	109910
880-57988-14	DS08	Total/NA	Solid	8015B NM	109910
MB 880-109910/1-A	Method Blank	Total/NA	Solid	8015B NM	109910
LCS 880-109910/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	109910
LCSD 880-109910/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	109910
880-57988-1 MS	DS01	Total/NA	Solid	8015B NM	109910
880-57988-1 MSD	DS01	Total/NA	Solid	8015B NM	109910

## Analysis Batch: 110127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Total/NA	Solid	8015 NM	
880-57988-2	DS01	Total/NA	Solid	8015 NM	
880-57988-3	DS02	Total/NA	Solid	8015 NM	
880-57988-4	DS02	Total/NA	Solid	8015 NM	
880-57988-5	DS03	Total/NA	Solid	8015 NM	
880-57988-6	DS04	Total/NA	Solid	8015 NM	
880-57988-7	DS04	Total/NA	Solid	8015 NM	
880-57988-8	DS05	Total/NA	Solid	8015 NM	
880-57988-9	DS05	Total/NA	Solid	8015 NM	
880-57988-10	DS06	Total/NA	Solid	8015 NM	
880-57988-11	DS06	Total/NA	Solid	8015 NM	
880-57988-12	DS07	Total/NA	Solid	8015 NM	
880-57988-13	DS08	Total/NA	Solid	8015 NM	
880-57988-14	DS08	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 109985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Soluble	Solid	DI Leach	
880-57988-2	DS01	Soluble	Solid	DI Leach	
880-57988-3	DS02	Soluble	Solid	DI Leach	
880-57988-4	DS02	Soluble	Solid	DI Leach	
880-57988-5	DS03	Soluble	Solid	DI Leach	
880-57988-6	DS04	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
 SDG: Lea County

## HPLC/IC (Continued)

## Leach Batch: 109985 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-7	DS04	Soluble	Solid	DI Leach	
880-57988-8	DS05	Soluble	Solid	DI Leach	
880-57988-9	DS05	Soluble	Solid	DI Leach	
880-57988-10	DS06	Soluble	Solid	DI Leach	
880-57988-11	DS06	Soluble	Solid	DI Leach	
880-57988-12	DS07	Soluble	Solid	DI Leach	
880-57988-13	DS08	Soluble	Solid	DI Leach	
880-57988-14	DS08	Soluble	Solid	DI Leach	
MB 880-109985/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-109985/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-109985/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-57988-1 MS	DS01	Soluble	Solid	DI Leach	
880-57988-1 MSD	DS01	Soluble	Solid	DI Leach	
880-57988-11 MS	DS06	Soluble	Solid	DI Leach	
880-57988-11 MSD	DS06	Soluble	Solid	DI Leach	

## Analysis Batch: 109987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-57988-1	DS01	Soluble	Solid	300.0	109985
880-57988-2	DS01	Soluble	Solid	300.0	109985
880-57988-3	DS02	Soluble	Solid	300.0	109985
880-57988-4	DS02	Soluble	Solid	300.0	109985
880-57988-5	DS03	Soluble	Solid	300.0	109985
880-57988-6	DS04	Soluble	Solid	300.0	109985
880-57988-7	DS04	Soluble	Solid	300.0	109985
880-57988-8	DS05	Soluble	Solid	300.0	109985
880-57988-9	DS05	Soluble	Solid	300.0	109985
880-57988-10	DS06	Soluble	Solid	300.0	109985
880-57988-11	DS06	Soluble	Solid	300.0	109985
880-57988-12	DS07	Soluble	Solid	300.0	109985
880-57988-13	DS08	Soluble	Solid	300.0	109985
880-57988-14	DS08	Soluble	Solid	300.0	109985
MB 880-109985/1-A	Method Blank	Soluble	Solid	300.0	109985
LCS 880-109985/2-A	Lab Control Sample	Soluble	Solid	300.0	109985
LCSD 880-109985/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	109985
880-57988-1 MS	DS01	Soluble	Solid	300.0	109985
880-57988-1 MSD	DS01	Soluble	Solid	300.0	109985
880-57988-11 MS	DS06	Soluble	Solid	300.0	109985
880-57988-11 MSD	DS06	Soluble	Solid	300.0	109985

## Lab Chronicle

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

## Client Sample ID: DS01

Date Collected: 05/09/25 10:10  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109922	MNR	EET MID	05/12/25 08:52
Total/NA	Analysis	8021B		1	109913	MNR	EET MID	05/12/25 12:26
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 12:26
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 11:38
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 11:38
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:00

## Client Sample ID: DS01

Date Collected: 05/09/25 10:15  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109922	MNR	EET MID	05/12/25 08:52
Total/NA	Analysis	8021B		1	109913	MNR	EET MID	05/12/25 12:55
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 12:55
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 12:23
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 12:23
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:15

## Client Sample ID: DS02

Date Collected: 05/09/25 10:30  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109922	MNR	EET MID	05/12/25 08:52
Total/NA	Analysis	8021B		25	109913	MNR	EET MID	05/12/25 15:59
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 15:59
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 12:37
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 12:37
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:20

## Client Sample ID: DS02

Date Collected: 05/09/25 11:20  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109922	MNR	EET MID	05/12/25 08:52
Total/NA	Analysis	8021B		1	109913	MNR	EET MID	05/12/25 13:16
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 13:16

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

## Client Sample ID: DS02

Date Collected: 05/09/25 11:20  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 12:52
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 12:52
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:25

## Client Sample ID: DS03

Date Collected: 05/09/25 12:36  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109922	MNR	EET MID	05/12/25 08:52
Total/NA	Analysis	8021B		1	109913	MNR	EET MID	05/12/25 13:36
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 13:36
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 13:07
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 13:07
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:31

## Client Sample ID: DS04

Date Collected: 05/09/25 11:20  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/12/25 22:46
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 22:46
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 13:22
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 13:22
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:46

## Client Sample ID: DS04

Date Collected: 05/09/25 11:25  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/12/25 23:06
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 23:06
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 13:37
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 13:37

Eurofins Midland

## Lab Chronicle

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

## Client Sample ID: DS04

Date Collected: 05/09/25 11:25  
Date Received: 05/09/25 16:57

Lab Sample ID: 880-57988-7  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:51

## Client Sample ID: DS05

Date Collected: 05/09/25 12:05  
Date Received: 05/09/25 16:57

Lab Sample ID: 880-57988-8  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/12/25 23:27
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 23:27
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 13:52
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 13:52
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 16:57

## Client Sample ID: DS05

Date Collected: 05/09/25 12:10  
Date Received: 05/09/25 16:57

Lab Sample ID: 880-57988-9  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/12/25 23:48
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/12/25 23:48
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 14:07
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 14:07
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 17:02

## Client Sample ID: DS06

Date Collected: 05/09/25 10:55  
Date Received: 05/09/25 16:57

Lab Sample ID: 880-57988-10  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/13/25 00:08
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/13/25 00:08
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 14:22
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 14:22
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 17:07

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
SDG: Lea County

## Client Sample ID: DS06

Date Collected: 05/09/25 11:00  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/13/25 00:29
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/13/25 00:29
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 14:52
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 14:52
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 17:12

## Client Sample ID: DS07

Date Collected: 05/09/25 12:40  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/13/25 00:49
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/13/25 00:49
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 15:07
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 15:07
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 17:28

## Client Sample ID: DS08

Date Collected: 05/09/25 11:10  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/13/25 01:10
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/13/25 01:10
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 15:22
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 15:22
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 17:33

## Client Sample ID: DS08

Date Collected: 05/09/25 11:15  
Date Received: 05/09/25 16:57

## Lab Sample ID: 880-57988-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			109926	MNR	EET MID	05/12/25 09:27
Total/NA	Analysis	8021B		1	109915	MNR	EET MID	05/13/25 03:25
Total/NA	Analysis	Total BTEX		1	109995	SM	EET MID	05/13/25 03:25

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
 SDG: Lea County

**Client Sample ID: DS08**

Date Collected: 05/09/25 11:15  
 Date Received: 05/09/25 16:57

**Lab Sample ID: 880-57988-14**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	110127	SM	EET MID	05/13/25 15:38
Total/NA	Prep	8015NM Prep			109910	EL	EET MID	05/12/25 07:59
Total/NA	Analysis	8015B NM		1	110022	TKC	EET MID	05/13/25 15:38
Soluble	Leach	DI Leach			109985	SI	EET MID	05/12/25 14:21
Soluble	Analysis	300.0		1	109987	CH	EET MID	05/12/25 17:49

**Laboratory References:**

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

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Eurofins Midland

## Accreditation/Certification Summary

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
 SDG: Lea County

**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	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Eurofins Midland

**Method Summary**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-57988-1  
 SDG: Lea County

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 Midland

## Sample Summary

Client: Ensolum

Job ID: 880-57988-1

Project/Site: Pygmy 27 State 3H

SDG: Lea County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
880-57988-1	DS01	Solid	05/09/25 10:10	05/09/25 16:57	0.5'	1
880-57988-2	DS01	Solid	05/09/25 10:15	05/09/25 16:57	1'	2
880-57988-3	DS02	Solid	05/09/25 10:30	05/09/25 16:57	0.5'	3
880-57988-4	DS02	Solid	05/09/25 11:20	05/09/25 16:57	3'	4
880-57988-5	DS03	Solid	05/09/25 12:36	05/09/25 16:57	0.5'	5
880-57988-6	DS04	Solid	05/09/25 11:20	05/09/25 16:57	0.5'	6
880-57988-7	DS04	Solid	05/09/25 11:25	05/09/25 16:57	1'	7
880-57988-8	DS05	Solid	05/09/25 12:05	05/09/25 16:57	0.5'	8
880-57988-9	DS05	Solid	05/09/25 12:10	05/09/25 16:57	1'	9
880-57988-10	DS06	Solid	05/09/25 10:55	05/09/25 16:57	0.5'	10
880-57988-11	DS06	Solid	05/09/25 11:00	05/09/25 16:57	1'	11
880-57988-12	DS07	Solid	05/09/25 12:40	05/09/25 16:57	0.5'	12
880-57988-13	DS08	Solid	05/09/25 11:10	05/09/25 16:57	0.5'	13
880-57988-14	DS08	Solid	05/09/25 11:15	05/09/25 16:57	3'	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-57988-1  
SDG Number: Lea County**Login Number: 57988****List Source: Eurofins Midland****List Number: 1****Creator: Rodriguez, Leticia**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
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 6/11/2025 9:29:57 AM

## JOB DESCRIPTION

Pygmy 27 State 3H

Lea County

## JOB NUMBER

880-59027-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

# Eurofins Midland

## 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  
6/11/2025 9:29:57 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: Pygmy 27 State 3H

Laboratory Job ID: 880-59027-1  
SDG: Lea County

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## Definitions/Glossary

Client: Ensolum

Job ID: 880-59027-1

Project/Site: Pygmy 27 State 3H

SDG: Lea County

### Qualifiers

#### GC VOA

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

#### GC Semi VOA

Qualifier	Qualifier Description
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.**

⊗	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

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**Case Narrative**

Client: Ensolum  
 Project: Pygmy 27 State 3H

Job ID: 880-59027-1

**Job ID: 880-59027-1****Eurofins Midland****Job Narrative  
880-59027-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

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

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

**Receipt**

The samples were received on 6/5/2025 3:30 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 2.2°C.

**GC VOA**

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

**Diesel Range Organics**

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

**HPLC/IC**

Method 300\_ORGFM\_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-111712 and analytical batch 880-111762 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Eurofins Midland

## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

**Client Sample ID: DS03**  
Date Collected: 06/05/25 09:38  
Date Received: 06/05/25 15:30  
Sample Depth: 0.5'

**Lab Sample ID: 880-59027-1**  
Matrix: Solid

**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	06/06/25 09:08	06/06/25 14:30		1
Toluene	<0.00200	U	0.00200	mg/Kg	06/06/25 09:08	06/06/25 14:30		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	06/06/25 09:08	06/06/25 14:30		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	06/06/25 09:08	06/06/25 14:30		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	06/06/25 09:08	06/06/25 14:30		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	06/06/25 09:08	06/06/25 14:30		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)	102			70 - 130		06/06/25 09:08	06/06/25 14:30	1
1,4-Difluorobenzene (Surr)	93			70 - 130		06/06/25 09:08	06/06/25 14:30	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			06/06/25 14:30	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			06/07/25 03:21	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	06/05/25 15:34	06/07/25 03:21		1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg	06/05/25 15:34	06/07/25 03:21		1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg	06/05/25 15:34	06/07/25 03:21		1
<b>Surrogate</b>								
1-Chlorooctane	115		70 - 130		06/05/25 15:34	06/07/25 03:21		1
<i>o</i> -Terphenyl	122		70 - 130		06/05/25 15:34	06/07/25 03:21		1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	273	F1	10.0	mg/Kg			06/10/25 14:35	1

**Client Sample ID: DS07**

**Lab Sample ID: 880-59027-2**  
Matrix: Solid

Date Collected: 06/05/25 09:40  
Date Received: 06/05/25 15:30  
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	06/06/25 09:08	06/06/25 14:50		1
Toluene	<0.00198	U	0.00198	mg/Kg	06/06/25 09:08	06/06/25 14:50		1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg	06/06/25 09:08	06/06/25 14:50		1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg	06/06/25 09:08	06/06/25 14:50		1
o-Xylene	<0.00198	U	0.00198	mg/Kg	06/06/25 09:08	06/06/25 14:50		1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg	06/06/25 09:08	06/06/25 14:50		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)	102			70 - 130		06/06/25 09:08	06/06/25 14:50	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

**Client Sample ID: DS07**  
Date Collected: 06/05/25 09:40  
Date Received: 06/05/25 15:30  
Sample Depth: 1'

**Lab Sample ID: 880-59027-2**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	06/06/25 09:08	06/06/25 14:50	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			06/06/25 14:50	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			06/07/25 03:35	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		06/05/25 15:34	06/07/25 03:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/05/25 15:34	06/07/25 03:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/05/25 15:34	06/07/25 03:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	06/05/25 15:34	06/07/25 03:35	1
o-Terphenyl	123		70 - 130	06/05/25 15:34	06/07/25 03:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		10.1	mg/Kg			06/10/25 14:56	1

**Client Sample ID: DS09****Lab Sample ID: 880-59027-3**

Matrix: Solid

Date Collected: 06/05/25 09:42

Date Received: 06/05/25 15:30

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		06/06/25 09:08	06/06/25 15:11	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/06/25 09:08	06/06/25 15:11	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/06/25 09:08	06/06/25 15:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		06/06/25 09:08	06/06/25 15:11	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/06/25 09:08	06/06/25 15:11	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		06/06/25 09:08	06/06/25 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	06/06/25 09:08	06/06/25 15:11	1
1,4-Difluorobenzene (Surr)	98		70 - 130	06/06/25 09:08	06/06/25 15:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			06/06/25 15:11	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			06/07/25 04:06	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

**Client Sample ID: DS09**  
Date Collected: 06/05/25 09:42  
Date Received: 06/05/25 15:30  
Sample Depth: 0.5'

**Lab Sample ID: 880-59027-3**  
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	<49.7	U	49.7	mg/Kg		06/05/25 15:34	06/07/25 04:06	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		06/05/25 15:34	06/07/25 04:06	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		06/05/25 15:34	06/07/25 04:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			06/05/25 15:34	06/07/25 04:06	1
o-Terphenyl	119		70 - 130			06/05/25 15:34	06/07/25 04:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		10.0	mg/Kg			06/10/25 15:03	1

**Client Sample ID: DS09**  
Date Collected: 06/05/25 09:44  
Date Received: 06/05/25 15:30  
Sample Depth: 1'

**Lab Sample ID: 880-59027-4**  
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		06/06/25 09:08	06/06/25 16:33	1
Toluene	<0.00202	U	0.00202	mg/Kg		06/06/25 09:08	06/06/25 16:33	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/06/25 09:08	06/06/25 16:33	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/06/25 09:08	06/06/25 16:33	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/06/25 09:08	06/06/25 16:33	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/06/25 09:08	06/06/25 16:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			06/06/25 09:08	06/06/25 16:33	1
1,4-Difluorobenzene (Surr)	98		70 - 130			06/06/25 09:08	06/06/25 16:33	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			06/06/25 16:33	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			06/07/25 04:23	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	<50.3	U	50.3	mg/Kg		06/05/25 15:34	06/07/25 04:23	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		06/05/25 15:34	06/07/25 04:23	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		06/05/25 15:34	06/07/25 04:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			06/05/25 15:34	06/07/25 04:23	1
o-Terphenyl	119		70 - 130			06/05/25 15:34	06/07/25 04:23	1

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## Client Sample Results

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
 SDG: Lea County

**Client Sample ID: DS09**  
 Date Collected: 06/05/25 09:44  
 Date Received: 06/05/25 15:30  
 Sample Depth: 1'

**Lab Sample ID: 880-59027-4**  
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		10.0	mg/Kg			06/10/25 15:24	1

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

## Surrogate Summary

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
 SDG: Lea County

## 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)									
880-59027-1	DS03	102	93									
880-59027-2	DS07	102	95									
880-59027-3	DS09	99	98									
880-59027-4	DS09	102	98									
LCS 880-111647/1-A	Lab Control Sample	92	90									
LCSD 880-111647/2-A	Lab Control Sample Dup	93	93									
MB 880-111647/5-A	Method Blank	93	97									

## 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)									
880-59027-1	DS03	115	122									
880-59027-2	DS07	116	123									
880-59027-3	DS09	114	119									
880-59027-4	DS09	112	119									
LCS 880-111637/2-A	Lab Control Sample	101	98									
LCSD 880-111637/3-A	Lab Control Sample Dup	103	99									
MB 880-111637/1-A	Method Blank	83	87									

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

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

Lab Sample ID: MB 880-111647/5-A

Matrix: Solid

Analysis Batch: 111641

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111647

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	06/06/25 09:08		06/06/25 11:46		1
Toluene	<0.00200	U	0.00200		mg/Kg	06/06/25 09:08		06/06/25 11:46		1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	06/06/25 09:08		06/06/25 11:46		1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	06/06/25 09:08		06/06/25 11:46		1
o-Xylene	<0.00200	U	0.00200		mg/Kg	06/06/25 09:08		06/06/25 11:46		1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	06/06/25 09:08		06/06/25 11:46		1
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	93		70 - 130			06/06/25 09:08		06/06/25 11:46		1
1,4-Difluorobenzene (Surr)	97		70 - 130			06/06/25 09:08		06/06/25 11:46		1

Lab Sample ID: LCS 880-111647/1-A

Matrix: Solid

Analysis Batch: 111641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 111647

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec	RPD
	Result	Qualifier									
Benzene			0.100	0.08728		mg/Kg		87	70 - 130		
Toluene			0.100	0.08127		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.08595		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1730		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08822		mg/Kg		88	70 - 130		
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
	Result	Qualifier									
4-Bromofluorobenzene (Surr)	92		70 - 130			06/06/25 09:08		06/06/25 11:46		1	
1,4-Difluorobenzene (Surr)	90		70 - 130			06/06/25 09:08		06/06/25 11:46		1	

Lab Sample ID: LCSD 880-111647/2-A

Matrix: Solid

Analysis Batch: 111641

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 111647

Analyte	MB	MB	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	%Rec	RPD
	Result	Qualifier									
Benzene			0.100	0.1070		mg/Kg		107	70 - 130	20	35
Toluene			0.100	0.09750		mg/Kg		98	70 - 130	18	35
Ethylbenzene			0.100	0.1050		mg/Kg		105	70 - 130	20	35
m-Xylene & p-Xylene			0.200	0.2098		mg/Kg		105	70 - 130	19	35
o-Xylene			0.100	0.1052		mg/Kg		105	70 - 130	18	35
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
	Result	Qualifier									
4-Bromofluorobenzene (Surr)	93		70 - 130			06/06/25 09:08		06/06/25 11:46		1	
1,4-Difluorobenzene (Surr)	93		70 - 130			06/06/25 09:08		06/06/25 11:46		1	

## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-59027-1  
SDG: Lea County

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

Lab Sample ID: MB 880-111637/1-A

Matrix: Solid

Analysis Batch: 111716

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 111637

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	06/05/25 15:34	06/07/25 00:04		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	06/05/25 15:34	06/07/25 00:04		1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	06/05/25 15:34	06/07/25 00:04		1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier						
1-Chlorooctane	83		70 - 130	06/05/25 15:34	06/07/25 00:04		1	
o-Terphenyl	87		70 - 130	06/05/25 15:34	06/07/25 00:04		1	

Lab Sample ID: LCS 880-111637/2-A

Matrix: Solid

Analysis Batch: 111716

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 111637

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier									
Gasoline Range Organics (GRO)-C6-C10			1000	981.5		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	866.0		mg/Kg		87	70 - 130		
Surrogate	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
	%Recovery	Qualifier									
1-Chlorooctane	101			70 - 130							
o-Terphenyl	98			70 - 130							

Lab Sample ID: LCSD 880-111637/3-A

Matrix: Solid

Analysis Batch: 111716

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 111637

Analyte	MB	MB	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier									
Gasoline Range Organics (GRO)-C6-C10			1000	999.9		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	878.3		mg/Kg		88	70 - 130	1	20
Surrogate	MB	MB	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
	%Recovery	Qualifier									
1-Chlorooctane	103			70 - 130							
o-Terphenyl	99			70 - 130							

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-111712/1-A

Matrix: Solid

Analysis Batch: 111762

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<10.0	U	10.0	mg/Kg		06/09/25 21:22		1

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## QC Sample Results

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
 SDG: Lea County

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-111712/2-A

Matrix: Solid

Analysis Batch: 111762

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	245.5		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-111712/3-A

Matrix: Solid

Analysis Batch: 111762

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	246.6		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-59027-1 MS

Matrix: Solid

Analysis Batch: 111762

Client Sample ID: DS03  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	273	F1	250	559.5	F1	mg/Kg		114	90 - 110		

Lab Sample ID: 880-59027-1 MSD

Matrix: Solid

Analysis Batch: 111762

Client Sample ID: DS03  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	273	F1	250	560.7	F1	mg/Kg		115	90 - 110	0	20

## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-59027-1  
SDG: Lea County

## GC VOA

## Analysis Batch: 111641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Total/NA	Solid	8021B	111647
880-59027-2	DS07	Total/NA	Solid	8021B	111647
880-59027-3	DS09	Total/NA	Solid	8021B	111647
880-59027-4	DS09	Total/NA	Solid	8021B	111647
MB 880-111647/5-A	Method Blank	Total/NA	Solid	8021B	111647
LCS 880-111647/1-A	Lab Control Sample	Total/NA	Solid	8021B	111647
LCSD 880-111647/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	111647

## Prep Batch: 111647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Total/NA	Solid	5035	9
880-59027-2	DS07	Total/NA	Solid	5035	10
880-59027-3	DS09	Total/NA	Solid	5035	11
880-59027-4	DS09	Total/NA	Solid	5035	12
MB 880-111647/5-A	Method Blank	Total/NA	Solid	5035	13
LCS 880-111647/1-A	Lab Control Sample	Total/NA	Solid	5035	14
LCSD 880-111647/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 111813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Total/NA	Solid	Total BTEX	
880-59027-2	DS07	Total/NA	Solid	Total BTEX	
880-59027-3	DS09	Total/NA	Solid	Total BTEX	
880-59027-4	DS09	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 111637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Total/NA	Solid	8015NM Prep	
880-59027-2	DS07	Total/NA	Solid	8015NM Prep	
880-59027-3	DS09	Total/NA	Solid	8015NM Prep	
880-59027-4	DS09	Total/NA	Solid	8015NM Prep	
MB 880-111637/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-111637/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-111637/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 111716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Total/NA	Solid	8015B NM	111637
880-59027-2	DS07	Total/NA	Solid	8015B NM	111637
880-59027-3	DS09	Total/NA	Solid	8015B NM	111637
880-59027-4	DS09	Total/NA	Solid	8015B NM	111637
MB 880-111637/1-A	Method Blank	Total/NA	Solid	8015B NM	111637
LCS 880-111637/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	111637
LCSD 880-111637/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	111637

## Analysis Batch: 111806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Total/NA	Solid	8015 NM	
880-59027-2	DS07	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

## GC Semi VOA (Continued)

## Analysis Batch: 111806 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-3	DS09	Total/NA	Solid	8015 NM	
880-59027-4	DS09	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 111712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Soluble	Solid	DI Leach	
880-59027-2	DS07	Soluble	Solid	DI Leach	
880-59027-3	DS09	Soluble	Solid	DI Leach	
880-59027-4	DS09	Soluble	Solid	DI Leach	
MB 880-111712/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-111712/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-111712/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-59027-1 MS	DS03	Soluble	Solid	DI Leach	
880-59027-1 MSD	DS03	Soluble	Solid	DI Leach	

## Analysis Batch: 111762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-59027-1	DS03	Soluble	Solid	300.0	111712
880-59027-2	DS07	Soluble	Solid	300.0	111712
880-59027-3	DS09	Soluble	Solid	300.0	111712
880-59027-4	DS09	Soluble	Solid	300.0	111712
MB 880-111712/1-A	Method Blank	Soluble	Solid	300.0	111712
LCS 880-111712/2-A	Lab Control Sample	Soluble	Solid	300.0	111712
LCSD 880-111712/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	111712
880-59027-1 MS	DS03	Soluble	Solid	300.0	111712
880-59027-1 MSD	DS03	Soluble	Solid	300.0	111712

## Lab Chronicle

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

## Client Sample ID: DS03

Date Collected: 06/05/25 09:38  
Date Received: 06/05/25 15:30

## Lab Sample ID: 880-59027-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			111647	AA	EET MID	06/06/25 09:08
Total/NA	Analysis	8021B		1	111641	MNR	EET MID	06/06/25 14:30
Total/NA	Analysis	Total BTEX		1	111813	SM	EET MID	06/06/25 14:30
Total/NA	Analysis	8015 NM		1	111806	SM	EET MID	06/07/25 03:21
Total/NA	Prep	8015NM Prep			111637	FC	EET MID	06/05/25 15:34
Total/NA	Analysis	8015B NM		1	111716	TKC	EET MID	06/07/25 03:21
Soluble	Leach	DI Leach			111712	SMC	EET MID	06/06/25 15:48
Soluble	Analysis	300.0		1	111762	CH	EET MID	06/10/25 14:35

## Client Sample ID: DS07

Date Collected: 06/05/25 09:40  
Date Received: 06/05/25 15:30

## Lab Sample ID: 880-59027-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			111647	AA	EET MID	06/06/25 09:08
Total/NA	Analysis	8021B		1	111641	MNR	EET MID	06/06/25 14:50
Total/NA	Analysis	Total BTEX		1	111813	SM	EET MID	06/06/25 14:50
Total/NA	Analysis	8015 NM		1	111806	SM	EET MID	06/07/25 03:35
Total/NA	Prep	8015NM Prep			111637	FC	EET MID	06/05/25 15:34
Total/NA	Analysis	8015B NM		1	111716	TKC	EET MID	06/07/25 03:35
Soluble	Leach	DI Leach			111712	SMC	EET MID	06/06/25 15:48
Soluble	Analysis	300.0		1	111762	CH	EET MID	06/10/25 14:56

## Client Sample ID: DS09

Date Collected: 06/05/25 09:42  
Date Received: 06/05/25 15:30

## Lab Sample ID: 880-59027-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			111647	AA	EET MID	06/06/25 09:08
Total/NA	Analysis	8021B		1	111641	MNR	EET MID	06/06/25 15:11
Total/NA	Analysis	Total BTEX		1	111813	SM	EET MID	06/06/25 15:11
Total/NA	Analysis	8015 NM		1	111806	SM	EET MID	06/07/25 04:06
Total/NA	Prep	8015NM Prep			111637	FC	EET MID	06/05/25 15:34
Total/NA	Analysis	8015B NM		1	111716	TKC	EET MID	06/07/25 04:06
Soluble	Leach	DI Leach			111712	SMC	EET MID	06/06/25 15:48
Soluble	Analysis	300.0		1	111762	CH	EET MID	06/10/25 15:03

## Client Sample ID: DS09

Date Collected: 06/05/25 09:44  
Date Received: 06/05/25 15:30

## Lab Sample ID: 880-59027-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			111647	AA	EET MID	06/06/25 09:08
Total/NA	Analysis	8021B		1	111641	MNR	EET MID	06/06/25 16:33
Total/NA	Analysis	Total BTEX		1	111813	SM	EET MID	06/06/25 16:33

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
 SDG: Lea County

**Client Sample ID: DS09**

Date Collected: 06/05/25 09:44  
 Date Received: 06/05/25 15:30

**Lab Sample ID: 880-59027-4**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	111806	SM	EET MID	06/07/25 04:23
Total/NA	Prep	8015NM Prep			111637	FC	EET MID	06/05/25 15:34
Total/NA	Analysis	8015B NM		1	111716	TKC	EET MID	06/07/25 04:23
Soluble	Leach	DI Leach			111712	SMC	EET MID	06/06/25 15:48
Soluble	Analysis	300.0		1	111762	CH	EET MID	06/10/25 15:24

**Laboratory References:**

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

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Eurofins Midland

**Accreditation/Certification Summary**

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
SDG: Lea County

**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	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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Eurofins Midland

**Method Summary**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
 SDG: Lea County

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 Midland

**Sample Summary**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-59027-1  
 SDG: Lea County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-59027-1	DS03	Solid	06/05/25 09:38	06/05/25 15:30	0.5'
880-59027-2	DS07	Solid	06/05/25 09:40	06/05/25 15:30	1'
880-59027-3	DS09	Solid	06/05/25 09:42	06/05/25 15:30	0.5'
880-59027-4	DS09	Solid	06/05/25 09:44	06/05/25 15:30	1'

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## 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

880-59027 Chain of Custody

Project Manager:		Hadlie Green	Bill to: (if different)	Enschem/Hadlie Green	
Company Name:		Company Name:		Enschem/Hadlie Green	
Address:		601 N Marienfeld St. Ste 400		Address:	
City, State ZIP:		Midland, TX 79701		City, State ZIP:	
Phone:		(432) 557-8895		Email: <a href="mailto:HadlieGreen@enscheminc.com">HadlieGreen@enscheminc.com</a> / <a href="mailto:HadlieGreen@xenco.com">HadlieGreen@xenco.com</a>	
ANALYSIS REQUEST					
Project Name:	Pegmy 27 State 3H		Turn Around		Pres. Code
Project Number:	03D2024350		<input type="checkbox"/> Routine <input type="checkbox"/> Rush		
Project Location:	Lea County		Due Date:		
Sampler's Name:	Tabitha Guardian		TAT starts the day received by the lab, if received by 4:30pm		
PO #:	03D2024350				
SAMPLE RECEIPT	Temp Blank:	Yes <input checked="" type="checkbox"/>	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Samples Received Intact:	Thermometer ID:	10-8			
Cooler Custody Seals:	Correction Factor:	-0.1			
Sample Custody Seals:	Temperature Reading:	2.3			
Total Containers:	Corrected Temperature:	2.2			
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp # of Cont
DS03	Soil	09/25	0938	0.5'	6 1
DS07	Soil	0940		1'	6 1
DS09	Soil	0942		0.5'	6 1
DS09	Soil	0944		1'	6 1
Parameters					
Chlorides 300					
TPH 8015					
BTEX 8021					
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 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 \$50.00 will be applied to each project and a change 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)	Date/Time	Received by: (Signature)
<i>Jas</i>	<i>Or</i>	<i>09/25/2025</i>	<i>Or</i>	<i>09/25/2025</i>	<i>Or</i>
1	3	4	5	6	7

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-59027-1

SDG Number: Lea County

**Login Number: 59027****List Source: Eurofins Midland****List Number: 1****Creator: Vasquez, Julisa**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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 8/1/2025 4:08:45 PM

## JOB DESCRIPTION

Pygmy 27 State Com 3H

Lea County, NM

## JOB NUMBER

880-60921-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

# Eurofins Midland

## 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



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8/1/2025 4:08:45 PM

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: Pygmy 27 State Com 3H

Laboratory Job ID: 880-60921-1  
 SDG: Lea County, NM

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## Definitions/Glossary

Client: Ensolum

Job ID: 880-60921-1

Project/Site: Pygmy 27 State Com 3H

SDG: Lea County, NM

### Qualifiers

#### GC VOA

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

#### GC Semi VOA

Qualifier	Qualifier Description
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 Midland

## Case Narrative

Client: Ensolum  
Project: Pygmy 27 State Com 3H

Job ID: 880-60921-1

Job ID: 880-60921-1

Eurofins Midland

### Job Narrative 880-60921-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The sample was received on 7/30/2025 8:03 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-115368/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

### Diesel Range Organics

Method 8015MOD\_NM: Though the laboratory control sample duplicate (LCSD) did run, a report for the analysis did not generate. The matrix spike/matrix spike duplicate (MS/MSD) meet acceptance criteria and are thereby used to validate the batch.

(LCS 880-115578/2-A)

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 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-115426 and analytical batch 880-115439 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Eurofins Midland

## Client Sample Results

Client: Ensolum  
 Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
 SDG: Lea County, NM

## Client Sample ID: DS10

## Lab Sample ID: 880-60921-1

Date Collected: 07/29/25 11:00

Matrix: Solid

Date Received: 07/30/25 08:03

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	07/30/25 10:50	07/30/25 16:37		1
Toluene	<0.00200	U	0.00200	mg/Kg	07/30/25 10:50	07/30/25 16:37		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	07/30/25 10:50	07/30/25 16:37		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	07/30/25 10:50	07/30/25 16:37		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	07/30/25 10:50	07/30/25 16:37		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	07/30/25 10:50	07/30/25 16:37		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)		122		70 - 130		07/30/25 10:50	07/30/25 16:37	1
1,4-Difluorobenzene (Surr)		113		70 - 130		07/30/25 10:50	07/30/25 16:37	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			07/30/25 16:37	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			08/01/25 14:40	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	08/01/25 10:42	08/01/25 14:40		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	08/01/25 10:42	08/01/25 14:40		1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	08/01/25 10:42	08/01/25 14:40		1
<b>Surrogate</b>								
1-Chlorooctane								1
o-Terphenyl								1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	196		10.0	mg/Kg			07/31/25 05:52	1

Eurofins Midland

**Surrogate Summary**

Client: Ensolum  
 Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
 SDG: Lea County, NM

**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)
880-60921-1	DS10	122	113
LCS 880-115368/1-A	Lab Control Sample	101	106
LCSD 880-115368/2-A	Lab Control Sample Dup	111	107
MB 880-115368/5-A	Method Blank	181 S1+	103

**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)
880-60921-1	DS10	99	95
LCS 880-115578/2-A	Lab Control Sample	118	118
MB 880-115578/1-A	Method Blank	97	108

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
SDG: Lea County, NM

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

Lab Sample ID: MB 880-115368/5-A

Matrix: Solid

Analysis Batch: 115360

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115368

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	07/30/25 09:22		07/30/25 14:26		1
Toluene	<0.00200	U	0.00200		mg/Kg	07/30/25 09:22		07/30/25 14:26		1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	07/30/25 09:22		07/30/25 14:26		1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	07/30/25 09:22		07/30/25 14:26		1
o-Xylene	<0.00200	U	0.00200		mg/Kg	07/30/25 09:22		07/30/25 14:26		1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	07/30/25 09:22		07/30/25 14:26		1
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	181	S1+	70 - 130			07/30/25 09:22		07/30/25 14:26		1
1,4-Difluorobenzene (Surr)	103		70 - 130			07/30/25 09:22		07/30/25 14:26		1

Lab Sample ID: LCS 880-115368/1-A

Matrix: Solid

Analysis Batch: 115360

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115368

Analyte	Spikes	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Benzene	0.100	0.09275		mg/Kg			93	70 - 130		
Toluene	0.100	0.08378		mg/Kg			84	70 - 130		
Ethylbenzene	0.100	0.09092		mg/Kg			91	70 - 130		
m-Xylene & p-Xylene	0.200	0.1682		mg/Kg			84	70 - 130		
o-Xylene	0.100	0.09429		mg/Kg			94	70 - 130		
Surrogate	LCS	LCS	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	101		70 - 130							
1,4-Difluorobenzene (Surr)	106		70 - 130							

Lab Sample ID: LCSD 880-115368/2-A

Matrix: Solid

Analysis Batch: 115360

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115368

Analyte	Spikes	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Benzene	0.100	0.1008		mg/Kg			101	70 - 130	8	35	
Toluene	0.100	0.09412		mg/Kg			94	70 - 130	12	35	
Ethylbenzene	0.100	0.09669		mg/Kg			97	70 - 130	6	35	
m-Xylene & p-Xylene	0.200	0.1780		mg/Kg			89	70 - 130	6	35	
o-Xylene	0.100	0.1060		mg/Kg			106	70 - 130	12	35	
Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
	Result	Qualifier									
4-Bromofluorobenzene (Surr)	111		70 - 130								
1,4-Difluorobenzene (Surr)	107		70 - 130								

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
SDG: Lea County, NM

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

Lab Sample ID: MB 880-115578/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 115584

Prep Batch: 115578

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	08/01/25 10:41	08/01/25 09:27		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	08/01/25 10:41	08/01/25 09:27		1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	08/01/25 10:41	08/01/25 09:27		1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier						
1-Chlorooctane	97		70 - 130	08/01/25 10:41	08/01/25 09:27		1	
o-Terphenyl	108		70 - 130	08/01/25 10:41	08/01/25 09:27		1	

Lab Sample ID: LCS 880-115578/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 115584

Prep Batch: 115578

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10			1000	1017		mg/Kg	102	70 - 130	
Diesel Range Organics (Over C10-C28)			1000	886.4		mg/Kg	89	70 - 130	
Surrogate	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
	%Recovery	Qualifier							
1-Chlorooctane	118			70 - 130					
o-Terphenyl	118			70 - 130					

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-115426/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 115439

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Dil Fac
	Result	Qualifier							
Chloride	<10.0	U		10.0		mg/Kg	07/31/25 02:03		1

Lab Sample ID: LCS 880-115426/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 115439

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
	Result	Qualifier							
Chloride			250	250.5		mg/Kg	100	90 - 110	

Lab Sample ID: LCSD 880-115426/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 115439

Analyte	MB	MB	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD
	Result	Qualifier							
Chloride			250	248.4		mg/Kg	99	90 - 110	1

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## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
SDG: Lea County, NM

## GC VOA

## Analysis Batch: 115360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Total/NA	Solid	8021B	115368
MB 880-115368/5-A	Method Blank	Total/NA	Solid	8021B	115368
LCS 880-115368/1-A	Lab Control Sample	Total/NA	Solid	8021B	115368
LCSD 880-115368/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115368

## Prep Batch: 115368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Total/NA	Solid	5035	8
MB 880-115368/5-A	Method Blank	Total/NA	Solid	5035	9
LCS 880-115368/1-A	Lab Control Sample	Total/NA	Solid	5035	10
LCSD 880-115368/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	11

## Analysis Batch: 115511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Total/NA	Solid	Total BTEX	11

## GC Semi VOA

## Prep Batch: 115578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Total/NA	Solid	8015NM Prep	13
MB 880-115578/1-A	Method Blank	Total/NA	Solid	8015NM Prep	14
LCS 880-115578/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	12

## Analysis Batch: 115584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Total/NA	Solid	8015B NM	115578
MB 880-115578/1-A	Method Blank	Total/NA	Solid	8015B NM	115578
LCS 880-115578/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	115578

## Analysis Batch: 115615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 115426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Soluble	Solid	DI Leach	
MB 880-115426/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-115426/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-115426/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 115439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-60921-1	DS10	Soluble	Solid	300.0	115426
MB 880-115426/1-A	Method Blank	Soluble	Solid	300.0	115426
LCS 880-115426/2-A	Lab Control Sample	Soluble	Solid	300.0	115426
LCSD 880-115426/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	115426

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**Lab Chronicle**

Client: Ensolum  
 Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
 SDG: Lea County, NM

**Client Sample ID: DS10**

Date Collected: 07/29/25 11:00  
 Date Received: 07/30/25 08:03

**Lab Sample ID: 880-60921-1**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			115368	MNR	EET MID	07/30/25 10:50
Total/NA	Analysis	8021B		1	115360	MNR	EET MID	07/30/25 16:37
Total/NA	Analysis	Total BTEX		1	115511	SA	EET MID	07/30/25 16:37
Total/NA	Analysis	8015 NM		1	115615	SA	EET MID	08/01/25 14:40
Total/NA	Prep	8015NM Prep			115578	TKC	EET MID	08/01/25 10:42
Total/NA	Analysis	8015B NM		1	115584	TKC	EET MID	08/01/25 14:40
Soluble	Leach	DI Leach			115426	SMC	EET MID	07/30/25 13:58
Soluble	Analysis	300.0		1	115439	CS	EET MID	07/31/25 05:52

**Laboratory References:**

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

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Eurofins Midland

## Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
SDG: Lea County, NM

### **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	06-30-26

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

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Eurofins Midland

## Method Summary

Client: Ensolum  
Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1  
SDG: Lea County, NM

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 Midland

**Sample Summary**

Client: Ensolum

Project/Site: Pygmy 27 State Com 3H

Job ID: 880-60921-1

SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-60921-1	DS10	Solid	07/29/25 11:00	07/30/25 08:03	0.5'

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Environment Testing  
Xeno

## 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



Project Manager:	Hadlie Green	Bill to: (if different)	Hadlie Green
Company Name:	Crusium LLC	Company Name:	
Address:	601 N Midcreekfield St. Suite 400		
City, State ZIP:	Midland Tx 79701	City, State ZIP:	
Phone:	432-557-8645	Email:	Hadlie.Green@crusium.com

ANALYSIS REQUEST						
Preservative Codes						
Project Name:	Project 21 Side Car-34 Turn Around					
Project Number:	03/02/2024/350/03D2024351	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush	Pres. Code:		
Project Location:	Lea County, NM	Due Date:				
Sampler's Name:	Lorraine	TAT	Starts the day received by the lab, if received by 4:30pm			
PO #:	03/02/2024/350/03D2024351	Temp Blank:	Yes <input checked="" type="checkbox"/>	Wet Ice: <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/>	Thermometer ID: <input checked="" type="checkbox"/>	FR-8			
Samples Received Intact:	Yes <input checked="" type="checkbox"/>	Correction Factor: <input checked="" type="checkbox"/>	-0.1			
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/>	Temperature Reading: <input checked="" type="checkbox"/>	4.2			
Sample Custody Seals:	Yes <input checked="" type="checkbox"/>	Corrected Temperature: <input checked="" type="checkbox"/>	4.7			
Total Containers:	1					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont
DS10	5	1/29/25	1100	05'	C	1

Sample Identification	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Hadlie Green	1/29/25 08:44			
3					
5					

Revised Date: 08/25/2020 Rev. 2020.2

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Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 service. Eurofins Xeno. A minimum charge of \$5.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

8FCRA 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  
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

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-60921-1  
SDG Number: Lea County, NM**Login Number: 60921****List Source: Eurofins Midland****List Number: 1****Creator: Vasquez, Julisa**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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 11/3/2025 6:17:40 PM

## JOB DESCRIPTION

Pygmy 27 State 3H  
03D1014351

## JOB NUMBER

880-64388-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

# Eurofins Midland

## 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



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11/3/2025 6:17:40 PM

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: Pygmy 27 State 3H

Laboratory Job ID: 880-64388-1  
SDG: 03D1014351

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## Definitions/Glossary

Client: Ensolum

Job ID: 880-64388-1

Project/Site: Pygmy 27 State 3H

SDG: 03D1014351

### Qualifiers

#### GC VOA

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

#### GC Semi 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.

#### 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

## Case Narrative

Client: Ensolum  
Project: Pygmy 27 State 3H

Job ID: 880-64388-1

Job ID: 880-64388-1

Eurofins Midland

### Job Narrative 880-64388-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The samples were received on 10/30/2025 8:23 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-122672 and analytical batch 880-122669 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-122672 and analytical batch 880-122669 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-8999-A-21-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.

### Diesel Range Organics

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-122211 and analytical batch 880-122534 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (890-8988-A-5-C MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-122211 and analytical batch 880-122534 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-122211/2-A) and (LCSD 880-122211/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The laboratory control sample duplicate (LCSD) for preparation batch 880-122211 and analytical batch 880-122534 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28). Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8015MOD\_NM: The continuing calibration verification (CCV) associated with batch 880-122534 were inadvertently double spiked for Gasoline Range Organics (GRO)-C6-C10, Diesel Range Organics (Over C10-C28), 1-Chlorooctane and o-Terphenyl. The associated samples are:(CCV 880-122534/22) and (CCV 880-122534/4).

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

### HPLC/IC

Eurofins Midland

**Case Narrative**

Client: Ensolum  
Project: Pygmy 27 State 3H

Job ID: 880-64388-1

**Job ID: 880-64388-1 (Continued)****Eurofins Midland**

Method 300\_ORGFM\_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-122536 and analytical batch 880-122556 were outside control limits for Chloride . See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

The associated samples are: FS01 (880-64388-1), SW01 (880-64388-2), (880-64375-A-1-A), (880-64375-A-1-B MS) and (880-64375-A-1-C MSD).

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

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Eurofins Midland

## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
SDG: 03D1014351

**Client Sample ID: FS01**  
Date Collected: 10/29/25 10:16  
Date Received: 10/30/25 08:23  
Sample Depth: 1.5'

**Lab Sample ID: 880-64388-1**  
Matrix: Solid

**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	11/02/25 19:37	11/03/25 02:52		1
Toluene	<0.00201	U	0.00201	mg/Kg	11/02/25 19:37	11/03/25 02:52		1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg	11/02/25 19:37	11/03/25 02:52		1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg	11/02/25 19:37	11/03/25 02:52		1
o-Xylene	<0.00201	U	0.00201	mg/Kg	11/02/25 19:37	11/03/25 02:52		1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg	11/02/25 19:37	11/03/25 02:52		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)		95		70 - 130		11/02/25 19:37	11/03/25 02:52	1
1,4-Difluorobenzene (Surr)		99		70 - 130		11/02/25 19:37	11/03/25 02:52	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			11/03/25 02:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2000		49.9	mg/Kg			10/31/25 17:11	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	10/28/25 10:34	10/31/25 17:11		1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>1620</b>	<b>*+*1</b>	49.9	mg/Kg	10/28/25 10:34	10/31/25 17:11		1
<b>Oil Range Organics (Over C28-C36)</b>	<b>381</b>		49.9	mg/Kg	10/28/25 10:34	10/31/25 17:11		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane		104		70 - 130		10/28/25 10:34	10/31/25 17:11	1
o-Terphenyl		104		70 - 130		10/28/25 10:34	10/31/25 17:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	506		49.8	mg/Kg			10/31/25 22:16	5

**Client Sample ID: SW01**  
Date Collected: 10/29/25 10:18  
Date Received: 10/30/25 08:23  
Sample Depth: 1.5'

**Lab Sample ID: 880-64388-2**  
Matrix: Solid

**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	11/02/25 19:37	11/03/25 03:12		1
Toluene	<0.00200	U	0.00200	mg/Kg	11/02/25 19:37	11/03/25 03:12		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	11/02/25 19:37	11/03/25 03:12		1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg	11/02/25 19:37	11/03/25 03:12		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	11/02/25 19:37	11/03/25 03:12		1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg	11/02/25 19:37	11/03/25 03:12		1

Eurofins Midland

## Client Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
SDG: 03D1014351

**Client Sample ID: SW01**  
Date Collected: 10/29/25 10:18  
Date Received: 10/30/25 08:23  
Sample Depth: 1.5'

**Lab Sample ID: 880-64388-2**  
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	11/02/25 19:37	11/03/25 03:12	1
1,4-Difluorobenzene (Surr)	96		70 - 130	11/02/25 19:37	11/03/25 03:12	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			11/03/25 03:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2060		50.0	mg/Kg			10/31/25 17:32	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		10/28/25 10:34	10/31/25 17:32	1
Diesel Range Organics (Over C10-C28)	1610	*+*1	50.0	mg/Kg		10/28/25 10:34	10/31/25 17:32	1
Oil Range Organics (Over C28-C36)	445		50.0	mg/Kg		10/28/25 10:34	10/31/25 17:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	10/28/25 10:34	10/31/25 17:32	1
o-Terphenyl	90		70 - 130	10/28/25 10:34	10/31/25 17:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	559		49.9	mg/Kg			10/31/25 22:22	5

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**Surrogate Summary**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
 SDG: 03D1014351

**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)									
880-64388-1	FS01	95	99									
880-64388-2	SW01	87	96									
LCS 880-122672/1-A	Lab Control Sample	108	101									
LCSD 880-122672/2-A	Lab Control Sample Dup	109	113									
MB 880-122672/5-A	Method Blank	201 S1+	115									

**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)									
880-64388-1	FS01	104	104									
880-64388-2	SW01	91	90									
LCS 880-122211/2-A	Lab Control Sample	142 S1+	133 S1+									
LCSD 880-122211/3-A	Lab Control Sample Dup	197 S1+	185 S1+									
MB 880-122211/1-A	Method Blank	220 S1+	233 S1+									

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-64388-1  
SDG: 03D1014351

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

Lab Sample ID: MB 880-122672/5-A

Matrix: Solid

Analysis Batch: 122669

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 122672

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	11/02/25 19:37		11/02/25 20:48		1
Toluene	<0.00200	U	0.00200		mg/Kg	11/02/25 19:37		11/02/25 20:48		1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	11/02/25 19:37		11/02/25 20:48		1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	11/02/25 19:37		11/02/25 20:48		1
o-Xylene	<0.00200	U	0.00200		mg/Kg	11/02/25 19:37		11/02/25 20:48		1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	11/02/25 19:37		11/02/25 20:48		1
Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	201	S1+	70 - 130			11/02/25 19:37		11/02/25 20:48		1
1,4-Difluorobenzene (Surr)	115		70 - 130			11/02/25 19:37		11/02/25 20:48		1

Lab Sample ID: LCS 880-122672/1-A

Matrix: Solid

Analysis Batch: 122669

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 122672

Analyte	Spikes	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	
	Added	Result	Qualifier							
Benzene	0.100	0.1093		mg/Kg			109		70 - 130	
Toluene	0.100	0.09727		mg/Kg			97		70 - 130	
Ethylbenzene	0.100	0.09468		mg/Kg			95		70 - 130	
m-Xylene & p-Xylene	0.200	0.1973		mg/Kg			99		70 - 130	
o-Xylene	0.100	0.1111		mg/Kg			111		70 - 130	
Surrogate	LCS	LCS	%Recovery	Qualifier	Limits					
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	108		70 - 130							
1,4-Difluorobenzene (Surr)	101		70 - 130							

Lab Sample ID: LCSD 880-122672/2-A

Matrix: Solid

Analysis Batch: 122669

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 122672

Analyte	Spikes	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier								
Benzene	0.100	0.1232		mg/Kg			123		70 - 130	12	35
Toluene	0.100	0.1056		mg/Kg			106		70 - 130	8	35
Ethylbenzene	0.100	0.1010		mg/Kg			101		70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2441		mg/Kg			122		70 - 130	21	35
o-Xylene	0.100	0.1248		mg/Kg			125		70 - 130	12	35
Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits						
	Result	Qualifier									
4-Bromofluorobenzene (Surr)	109		70 - 130								
1,4-Difluorobenzene (Surr)	113		70 - 130								

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## QC Sample Results

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-64388-1  
SDG: 03D1014351

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

Lab Sample ID: MB 880-122211/1-A

Matrix: Solid

Analysis Batch: 122534

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 122211

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/28/25 10:34	10/31/25 08:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/28/25 10:34	10/31/25 08:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/28/25 10:34	10/31/25 08:46	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier						
1-Chlorooctane	220	S1+	70 - 130	10/28/25 10:34	10/31/25 08:46	1		
o-Terphenyl	233	S1+	70 - 130	10/28/25 10:34	10/31/25 08:46	1		

Lab Sample ID: LCS 880-122211/2-A

Matrix: Solid

Analysis Batch: 122534

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 122211

Analyte	Spikes	LCS	LCS	Unit	D	%Rec	Limits	
	Added	Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	1000	991.2		mg/Kg		99	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1223		mg/Kg		122	70 - 130	
Surrogate	LCS	LCS	Limits					
	%Recovery	Qualifier	Limits					
1-Chlorooctane	142	S1+	70 - 130					
o-Terphenyl	133	S1+	70 - 130					

Lab Sample ID: LCSD 880-122211/3-A

Matrix: Solid

Analysis Batch: 122534

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 122211

Analyte	Spikes	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	1000	1215		mg/Kg		121	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	1000	1695	*+*1	mg/Kg		170	70 - 130	32	20
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier	Limits						
1-Chlorooctane	197	S1+	70 - 130						
o-Terphenyl	185	S1+	70 - 130						

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-122536/1-A

Matrix: Solid

Analysis Batch: 122556

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<10.0	U	10.0	mg/Kg			10/31/25 20:59	1

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## QC Sample Results

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
 SDG: 03D1014351

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-122536/2-A

Matrix: Solid

Analysis Batch: 122556

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD
Chloride	250	252.4		mg/Kg	101	90 - 110		

Lab Sample ID: LCSD 880-122536/3-A

Matrix: Solid

Analysis Batch: 122556

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD
Chloride	250	253.5		mg/Kg	101	90 - 110		0 20

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## QC Association Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3HJob ID: 880-64388-1  
SDG: 03D1014351

## GC VOA

## Analysis Batch: 122669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Total/NA	Solid	8021B	122672
880-64388-2	SW01	Total/NA	Solid	8021B	122672
MB 880-122672/5-A	Method Blank	Total/NA	Solid	8021B	122672
LCS 880-122672/1-A	Lab Control Sample	Total/NA	Solid	8021B	122672
LCSD 880-122672/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	122672

## Prep Batch: 122672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Total/NA	Solid	5035	8
880-64388-2	SW01	Total/NA	Solid	5035	9
MB 880-122672/5-A	Method Blank	Total/NA	Solid	5035	10
LCS 880-122672/1-A	Lab Control Sample	Total/NA	Solid	5035	11
LCSD 880-122672/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	12

## Analysis Batch: 122763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Total/NA	Solid	Total BTEX	12
880-64388-2	SW01	Total/NA	Solid	Total BTEX	13

## GC Semi VOA

## Prep Batch: 122211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Total/NA	Solid	8015NM Prep	12
880-64388-2	SW01	Total/NA	Solid	8015NM Prep	13
MB 880-122211/1-A	Method Blank	Total/NA	Solid	8015NM Prep	14
LCS 880-122211/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	15
LCSD 880-122211/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	16

## Analysis Batch: 122534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Total/NA	Solid	8015B NM	122211
880-64388-2	SW01	Total/NA	Solid	8015B NM	122211
MB 880-122211/1-A	Method Blank	Total/NA	Solid	8015B NM	122211
LCS 880-122211/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	122211
LCSD 880-122211/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	122211

## Analysis Batch: 122785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Total/NA	Solid	8015 NM	122211
880-64388-2	SW01	Total/NA	Solid	8015 NM	122211

## HPLC/IC

## Leach Batch: 122536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Soluble	Solid	DI Leach	1
880-64388-2	SW01	Soluble	Solid	DI Leach	2
MB 880-122536/1-A	Method Blank	Soluble	Solid	DI Leach	3
LCS 880-122536/2-A	Lab Control Sample	Soluble	Solid	DI Leach	4
LCSD 880-122536/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	5

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**QC Association Summary**

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
 SDG: 03D1014351

**HPLC/IC****Analysis Batch: 122556**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-64388-1	FS01	Soluble	Solid	300.0	122536
880-64388-2	SW01	Soluble	Solid	300.0	122536
MB 880-122536/1-A	Method Blank	Soluble	Solid	300.0	122536
LCS 880-122536/2-A	Lab Control Sample	Soluble	Solid	300.0	122536
LCSD 880-122536/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	122536

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Eurofins Midland

## Lab Chronicle

Client: Ensolum  
 Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
 SDG: 03D1014351

## Client Sample ID: FS01

Date Collected: 10/29/25 10:16  
 Date Received: 10/30/25 08:23

## Lab Sample ID: 880-64388-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			122672	MNR	EET MID	11/02/25 19:37
Total/NA	Analysis	8021B		1	122669	MNR	EET MID	11/03/25 02:52
Total/NA	Analysis	Total BTEX		1	122763	SA	EET MID	11/03/25 02:52
Total/NA	Analysis	8015 NM		1	122785	SA	EET MID	10/31/25 17:11
Total/NA	Prep	8015NM Prep			122211	EL	EET MID	10/28/25 10:34
Total/NA	Analysis	8015B NM		1	122534	SA	EET MID	10/31/25 17:11
Soluble	Leach	DI Leach			122536	SA	EET MID	10/31/25 09:32
Soluble	Analysis	300.0		5	122556	SMC	EET MID	10/31/25 22:16

## Client Sample ID: SW01

Date Collected: 10/29/25 10:18  
 Date Received: 10/30/25 08:23

## Lab Sample ID: 880-64388-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			122672	MNR	EET MID	11/02/25 19:37
Total/NA	Analysis	8021B		1	122669	MNR	EET MID	11/03/25 03:12
Total/NA	Analysis	Total BTEX		1	122763	SA	EET MID	11/03/25 03:12
Total/NA	Analysis	8015 NM		1	122785	SA	EET MID	10/31/25 17:32
Total/NA	Prep	8015NM Prep			122211	EL	EET MID	10/28/25 10:34
Total/NA	Analysis	8015B NM		1	122534	SA	EET MID	10/31/25 17:32
Soluble	Leach	DI Leach			122536	SA	EET MID	10/31/25 09:32
Soluble	Analysis	300.0		5	122556	SMC	EET MID	10/31/25 22:22

## Laboratory References:

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

Eurofins Midland

## Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
SDG: 03D1014351

### **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	06-30-26

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

1  
2  
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Eurofins Midland

## Method Summary

Client: Ensolum  
Project/Site: Pygmy 27 State 3H

Job ID: 880-64388-1  
SDG: 03D1014351

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 Midland

## Sample Summary

Client: Ensolum

Job ID: 880-64388-1

Project/Site: Pygmy 27 State 3H

SDG: 03D1014351

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
880-64388-1	FS01	Solid	10/29/25 10:16	10/30/25 08:23	1.5'	1
880-64388-2	SW01	Solid	10/29/25 10:18	10/30/25 08:23	1.5'	2

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Eurofins Midland



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-64388-1

SDG Number: 03D1014351

**Login Number: 64388****List Source: Eurofins Midland****List Number: 1****Creator: Vasquez, Julisa**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		

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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS

Action 539206

**QUESTIONS**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAPP2509657158
Incident Name	NAPP2509657158 PYGMY 27 STATE 3H @ FAPP2203851379
Incident Type	Oil Release
Incident Status	Deferral Request Received
Incident Facility	[fAPP2203851379] Pygmy 27 St 3H Battery

**Location of Release Source**

*Please answer all the questions in this group.*

Site Name	PYGMY 27 STATE 3H
Date Release Discovered	04/06/2025
Surface Owner	Private

**Incident Details**

*Please answer all the questions in this group.*

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

**Nature and Volume of Release**

*Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*

Crude Oil Released (bbls) Details	Cause: Equipment Failure   Other (Specify)   Crude Oil   Released: 48 BBL   Recovered: 23 BBL   Lost: 25 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 539206

**QUESTIONS (continued)**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.

*With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.*

<b>Initial Response</b>	
<i>The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.</i>	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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.

I hereby agree and sign off to the above statement	Name: Jacob Laird Title: Environmental Engineer Email: <a href="mailto:jacob.laird@conocophillips.com">jacob.laird@conocophillips.com</a> Date: 12/31/2025
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QUESTIONS, Page 3

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
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Action 539206

**QUESTIONS (continued)**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS****Site Characterization**

*Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 500 and 1000 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	760
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	2060
GRO+DRO (EPA SW-846 Method 8015M)	1620
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	05/09/2025
On what date will (or did) the final sampling or liner inspection occur	10/29/2025
On what date will (or was) the remediation complete(d)	10/29/2025
What is the estimated surface area (in square feet) that will be reclaimed	4028
What is the estimated volume (in cubic yards) that will be reclaimed	450
What is the estimated surface area (in square feet) that will be remediated	4028
What is the estimated volume (in cubic yards) that will be remediated	450

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.*

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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QUESTIONS, Page 4

**State of New Mexico**  
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Action 539206

**QUESTIONS (continued)**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS****Remediation Plan (continued)**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

*(Select all answers below that apply.)*

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	fEEM0112342028 LEA LAND LANDFILL
OR which OCD approved well (API) will be used for <b>off-site</b> disposal	<i>Not answered.</i>
OR is the <b>off-site</b> disposal site, to be used, out-of-state	<i>Not answered.</i>
OR is the <b>off-site</b> disposal site, to be used, an NMED facility	<i>Not answered.</i>
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

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.

I hereby agree and sign off to the above statement	Name: Jacob Laird Title: Environmental Engineer Email: jacob.laird@conocophillips.com Date: 12/31/2025
--	---

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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QUESTIONS, Page 5

**State of New Mexico**  
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Action 539206

**QUESTIONS (continued)**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

**Deferral Requests Only**

*Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*

Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Lined containment, separators, process piping, supports, and surface piping.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	4028
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	450

*Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.*

Enter the facility ID (f#) on which this deferral should be granted	fAPP2203851379 Pygmy 27 St 3H Battery
Enter the well API (30-) on which this deferral should be granted	Not answered.
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

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.

I hereby agree and sign off to the above statement	Name: Jacob Laird Title: Environmental Engineer Email: <a href="mailto:jacob.laird@conocophillips.com">jacob.laird@conocophillips.com</a> Date: 12/31/2025
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Action 539206

**QUESTIONS (continued)**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	488393
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/29/2025
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	5150

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 539206

**CONDITIONS**

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 539206
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	Deferral approved. Deferral of FS01 and SW01 is approved until plugging and abandonment or a major facility deconstruction, whichever comes first. A complete and accurate remediation report and/or reclamation report will need to be submitted at that time.	12/31/2025