District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

\_)

Incident ID	nAPP2123361366
District RP	
Facility ID	
Application ID	

### **Release Notification**

### **Responsible Party**

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.raley@dvn.com	Incident # (assigned by OCD) nAPP2123361366
Contact mailing address: 5315 Buena Vista Dr., Carlsbad NM 88220	

### **Location of Release Source**

Latitude 32.0210342

Longitude -103.9788208

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: EAST PECOS FEDERAL 22 #003H	Site Type: Oil Production Facility
Date Release Discovered: Aug 21 <sup>th</sup> , 2021	API# (if applicable) 30-015-42285

Unit Letter	Section	Township	Range	County
М	22	26S	29E	Eddy

Surface Owner: State Federal Tribal Private (Name:

### Nature and Volume of Release

Materia	l(s) Released (Select all that apply and attach calculations or specific	: justification for the volumes provided below)
Crude Oil	Volume Released (bbls) 10	Volume Recovered (bbls) 8
Produced Water	Volume Released (bbls) 25	Volume Recovered (bbls) 19
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: Stainle released to the pad surfac	ess steel line running to murphy gauge on wellhead fail e.	ed, allowing for approx. 35 bbls (25PW/10 Oil) to be
$bbl estimate = \frac{satura}{4.2}$	$\frac{ted soil volume (ft^3)}{ft^3} * estimated soil porosity(\%) - 21(\frac{ft^3}{bbl \ equivalent})$	+ recovered fluids (bbl)

eived by OCD: 7/12/202.	2 7:45:10 AM1 State of New Mexico		P <b>Pag</b> ê
m (-141		Incident ID	nAPP2123361366
ge 2 Oil Conservation Division	District RP		
	Facility ID		
		Application ID	
release as defined by 19.15.29.7(A) NMAC? ⊠ Yes □ No	Volume exceeded 25 bbls		
-	otice given to the OCD? By whom? To whom? Wh y on 8/21/2021, to Robert Hamlet and Emily Hernan		email, etc)?

### **Initial Response**

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

 $\square$  The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name:James Raley	Title: Environmental Specialist
Signature:fin Rely email:jim.raley@dvn.com	Date:08/30/2021 Telephone:575-689-7597
OCD Only Received by: Ramona Marcus	Date: 8/31/2021

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

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	45151
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By Condition	dition	Condition Date
rmarcus None	9	8/31/2021

CONDITIONS

PPage 3 of 61

Action 45151

Received by OCD: 3/12/2022 7:45:10 AM Form C-141 State of New Mexico

Oil Conservation Division

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Incident ID	nAPP2123361366
District RP	
Facility ID	
Application ID	

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### Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51 - 100</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 📈 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🗌 Yes 📈 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

#### Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
   Field data
- Data table of soil contaminant concentration data
- $\overline{\mathbf{\nabla}}$  Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- ☑ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

.

Page 3

Peceived by OCD: 3/12/2022 3:45:10 AM State of New Page 4 Oil Conservatio		Incident ID District RP Facility ID Application ID	nAPP2123361366
I hereby certify that the information given above is true and or regulations all operators are required to report and/or file cert public health or the environment. The acceptance of a C-141 failed to adequately investigate and remediate contamination addition, OCD acceptance of a C-141 report does not relieve and/or regulations.	ain release notifications and perform report by the OCD does not relieve that pose a threat to groundwater, s he operator of responsibility for co	m corrective actions for rel e the operator of liability sl surface water, human healtl ompliance with any other fo	eases which may endanger nould their operations have n or the environment. In ederal, state, or local laws
Printed Name: Jim Raley	Title: Envir	ronmental Profess	ional
Signature: fin Rely	Date: <u>3/14/202</u>	2	
<sub>email:</sub> jim.raley@dvn.com	Telephone: <u>575</u>	5-689-7597	
OCD Only			
Received by:	Date:		

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Oil Conservation Division

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. A scaled site and sampling diagram as described in 19.15.29.11 NMAC Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Description of remediation activities 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Title: Environmental Professional Printed Name: Jim Raley Signature: \_\_\_\_ Date: 7/12/2022 <sub>email:</sub> jim.raley@dvn.com Telephone: 575-689-7597 **OCD Only** Received by: Date: Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:	Date: 07/18/2022
Printed Name: Jennifer Nobui	Title: Environmental Specialist A



### **CLOSURE REQUEST REPORT**

Site Location:

East Pecos Federal 22 #003H Eddy County, New Mexico Incident Number: nAPP2123361366

July 11, 2022 Ensolum Project No. 03A1987011

Prepared for:

WPX Energy Permian, LLC 5315 Buena Vista Dr. Carlsbad, NM 88220 Attention: Jim Raley

Prepared by:

JS.J. Delill

Benjamin Belill Project Geologist

Ashley L. Ager

Ashley Ager, M.S., PG Program Director, Geologist



East Pecos Federal 22 #003H Incident Number: nAPP2123361366 Closure Request Report July 11, 2022

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Appendix B:	Photographic Documentation
Appendix C:	Tables
Appendix D:	Laboratory Analytical Reports & Chain-of-Custody Documentation

**Appendix E:** Correspondence Emails

#### 1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this Closure Request Report (CRR) to document remediation corrective actions performed by WPX Energy Permian, LLC (WPX) at the East Pecos Federal 22 #003H (hereinafter referred to as the "Site") in Unit M, Section 22, Township 26 South, Range 29 East, in Eddy County, New Mexico. The corrective actions have been completed in accordance with a Remediation Work Plan (RWP) authored by WSP USA Inc. (WSP), which was approved by the New Mexico Oil and Conservation Division (NMOCD) on March 16, 2022. All previous remediation activities and soil sample analytical results can be referenced in the original RWP and other submitted deliverable documents to the NMOCD.

#### 1.1 Site Description and Release Background

The Site is located within Eddy County, New Mexico (32.0210342° N, 103.9788208° W) and is associated with oil and gas exploration and production operations on private land (Figure 1 in Appendix A).

On August 21, 2021, a stainless-steel line running to a Murphy gauge on the wellhead failed and resulted in approximately 10 barrels (bbls) of crude oil and 25 bbls of produced water were released onto the surface of the well pad. Hydrovac trucks were immediately dispatched to the Site and recovered approximately 8 bbls of crude oil and 19 bbls of produced water. WPX reported the release to the NMOCD via email on the day of the release and on a subsequent Release Notification and Corrective Action Form C-141 (Form C-141) on August 30, 2021. The release was assigned Incident Number nAPP2123361366.

#### **1.2** Site Characterization

A detailed Site Characterization can be referenced in the approved RWP, submitted by WPX on March 14, 2022. Based on the desktop review of nearby receptors and depth to groundwater determination at the Site, the following NMOCD Table 1 Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH): 100 mg/kg
- Chloride: 600 mg/kg

#### 2.0 **REMEDIATION ACTIONS**

WPX conducted remediation in accordance with the approved RWP and applicable NMOCD guidelines.

#### 2.1 Excavation Activities

On May 3, 2022, additional excavation activities were conducted by Ensolum to remove impacted soil associated with the subject release via heavy equipment. Excavation activites were directed by referencing existing delineation and excavation laboratory analytical results and by field sceening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector and chloride using Hach® chloride QuanTab® test strips. As proposed in the RWP, Ensolum

extended the eastern sidewall of the western excavation to address elevated chloride detected in existing soil sample SW07 and deepened the eastern excavation near the location of existing floor sample FS07. The extent of the additional soil removal in both the eastern and western excavation areas presented on **Figure 2 in Appendix A**.

Following removal of impacted soil, Ensolum collected composite soil samples to represent at least 200 square feet from the new portions of the excavations to confirm impacted soil above the Closure Criteria was successfully removed. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil sample SW10 (replacing existing sample SW07) was collected from the eastern sidewall of the western excavation at a depth ranging from the ground surface to approximately 4 feet bgs. Composite soil sample FS07 (replacing existing sample FS07 collected at 3 feet bgs) was collected from the floor of the eastern excavation at a depth of 3 to 4 feet bgs. Field screening indicated only a portion of the floor associated with sample FS07 was required to be removed to meet the Closure Criteria.

The soil samples were placed directly into a 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 at or below 4 degrees Celsius (°C), under strict chain-of-custody procedures, to Eurofins LLC (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following EPA Method 300.0.

On May 15, 2022, a 20-mil impermeable liner was placed into the entirety of the floor of the western excavated area at approximately 4 to 4.5 feet bgs as proposed in the approved RWP to act as a physical barrier and mitigate residual chloride impacts into the subsurface. Immediately following the liner installation, both excavations were backfilled with clean, non-waste containing soil.

The approximate extent of excavation, liner extent and excavation soil sample locations is provided on **Figure 2 in Appendix A**. Photographic documentation of remediation activities and liner extent is included in **Appendix B**.

#### 2.2 Waste Handling

At the completion of remediation action activities, an additional 20 cubic yards (cy) of impacted soil were excavated under WPX approved manifests. The excavated impacted soil was transported for disposal to a R360 Environmental Solutions, LLC Facility in accordance with state and federal regulations

#### 3.0 SOIL SAMPLING RESULTS

Final confirmation excavation soil sample laboratory analytical results (SW10 and FS07) indicated constituents of concern (COCs) were below the Closure Criteria. Laboratory analytical results are summarized on **Table 1** in **Appendix C**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix D**. **Appendix E** provides sampling correspondence email notification receipts associated with the release.

#### 4.0 FINDINGS AND CONCLUSIONS

The primary objectives of Ensolum's scope of services were to document that response actions performed at the Site were completed in accordance with the applicable NMOCD regulatory guidelines and to document COCs in soil remaining on-Site were less than the Closure Criteria for the Site. Based on the results documented in this report, the following findings and conclusions regarding the Site are presented:

- Following removal of 20 cy of impacted soil, in addition to the previously removed 740 cy, a total of approximately 760 cy of impacted soil were excavated and removed from the Site for disposal in accordance with state and federal regulations;
- Based on laboratory analytical results, concentrations of COCs greater than the NMOCD applicable Closure Criteria were not identified in areas associated with confirmation soil samples SW10 and FS07; and
- A 20-mil impermeable liner was installed at a depth ranging from 4 to 4.5 feet bgs on the floor of the western excavation area in order to act as a physical barrier and mitigate residual chloride impacts into the subsurface.

The eastern and western excavations were backfilled with clean, imported soil and restored to "as close to its original state" as possible.

Based on the findings and conclusions of this report No Further Action appears warranted at this time and the Site should be respectfully considered for closure by the NMOCD. Previous project summary and field activity details can be found in the original RWP.



# APPENDIX A

Figures

Received by OCD: 7/12/2022 7:45:10 AM







# APPENDIX B

Photographic Log

Released to Imaging: 7/18/2022 3:29:53 PM

#### Photographic Log

WPX Energy Permian, LLC East Pecos Federal 22 #003H Incident Number nAPP2123361366 Ensolum Job Number: 03A1987011



C ENSOLUM

**Photograph 1** Date: May 3, 2022 Description: Western Excavation Activities



**Photograph 2** Date: May 3, 2022 Description: Eastern Excavation Activities



**Photograph 3** Date: May 13, 2022 Description: Liner Installation Activities



Photograph 4 Date: May 15, 2022 Description: Backfilled Excavation with Liner



# APPENDIX C

Tables

### **ENSOLUM**

	TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS WPX Energy Permian, LLC - East Pecos Federal 22 #003H Eddy County, New Mexico Ensolum Project No. 03A1987011										
Sample I.D.       Sample of the base       Sample of the base       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 1 0	Closure Criteria	(NMAC 19.15.29)	10	50	NE	NE	NE	NE	100	600	
Excavation Soil Sample Analytical Results											
FS07	05/03/2022	3 - 4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	380	
SW10	05/03/2022	0 - 4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	388	

#### Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

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 1 Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release

.



# APPENDIX D

Laboratory Analytical Reports & Chain-of-Custody Documentation Received by OCD: 7/12/2022 7:45:10 AM

# 🔅 eurofins

# Environment Testing America

# ANALYTICAL REPORT

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

### Laboratory Job ID: 890-2272-1

Laboratory Sample Delivery Group: Eddy Co, NM Client Project/Site: East Pecos Federal 22 #003H

### For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

### Attn: Joseph Hernandez

Brianna Tel

Authorized for release by: 5/5/2022 8:13:36 PM Brianna Teel, Project Manager (432)704-5440 Brianna.Teel@et.eurofinsus.com

Designee for

Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

Visit us at: www.eurofinsus.com/Env Released to Imaging: 7/18/2022 3:29:53 PM

..... LINKS

Review your project results through

Total Access

Have a Question?

Ask-

The

Expert

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Certification Summary	14
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Sample Summary	16
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	Definitions/Glossary		
Client: Ensolu	um	Job ID: 890-2272-1	
Project/Site: I	East Pecos Federal 22 #003H	SDG: Eddy Co, NM	
Qualifiers			
GC VOA			
Qualifier	Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		
U	Indicates the analyte was analyzed for but not detected.		
GC Semi VO	Α		
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.		
a	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		
	Duplicate Error Ratio (normalized absolute difference)		
Dil Fac	Dilution Factor		
DL DI RARE IN	Detection Limit (DoD/DOE)		
DL, RA, RE, IN DLC	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample		
EDL	Decision Level Concentration (Radiochemistry) 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		

Presumptive

Quality Control

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

PRES

QC

RL RPD

TEF

TEQ TNTC

RER

### **Case Narrative**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2272-1 SDG: Eddy Co, NM

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#### Job ID: 890-2272-1

#### Laboratory: Eurofins Carlsbad

#### Narrative

Job Narrative 890-2272-1

#### Receipt

The sample was received on 5/3/2022 2:17 PM. 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 1.6°C

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24865 and analytical batch 880-24907 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### GC Semi VOA

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

#### HPLC/IC

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

### **Client Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

#### Client Sample ID: SW10 Date Collected: 05/03/22 11:00 Date Received: 05/03/22 14:17

Sample Depth: 0 - 4'

Method: 8021B - Volatile Orga	nic Compo	unds (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:58	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/05/22 09:49	05/05/22 17:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:58	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/05/22 09:49	05/05/22 17:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130				05/05/22 09:49	05/05/22 17:58	1
1,4-Difluorobenzene (Surr)	99		70 - 130				05/05/22 09:49	05/05/22 17:58	1
Method: Total BTEX - Total BT									
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg	_		05/05/22 19:48	1
Mothed: 0045 MM Disc. 15			201						
Method: 8015 NM - Diesel Ran				MD	Unit	-	Browers'	Analyzed	
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/05/22 14:52	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9		49.9		mg/Kg		05/05/22 10:00	05/05/22 13:58	
(GRO)-C6-C10					2 0				
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/05/22 10:00	05/05/22 13:58	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/05/22 10:00	05/05/22 13:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				05/05/22 10:00	05/05/22 13:58	1
o-Terphenyl	96		70 - 130				05/05/22 10:00	05/05/22 13:58	1
 Method: 300.0 - Anions, Ion C	hromatogra	nhy - Solu	hle						
Analyte		Qualifier	RL	мы	Unit	D	Prepared	Analyzed	Dil Fac
Chloride			4.99	MDL	mg/Kg		. repared	05/05/22 14:13	
omoriue	200		4.33		mg/mg			JJJJJZZ 14.13	1

5

Job ID: 890-2272-1 SDG: Eddy Co, NM

Matrix: Solid

### Lab Sample ID: 890-2272-1

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### **Surrogate Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

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

			Perc	ent Surrogate Reco
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-14421-A-3-B MS	Matrix Spike	108	103	
880-14421-A-3-C MSD	Matrix Spike Duplicate	109	103	
890-2272-1	SW10	105	99	
LCS 880-24865/1-A	Lab Control Sample	107	98	
LCSD 880-24865/2-A	Lab Control Sample Dup	103	102	
MB 880-24865/5-A	Method Blank	97	96	
MB 880-24865/5-A Surrogate Legend	Method Blank	97	96	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid			,,,,,,	Prep Type: Total/NA	
		1CO1	Percent Surr OTPH1	rogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-14397-A-7-C MS	Matrix Spike	87	85		13
880-14397-A-7-D MSD	Matrix Spike Duplicate	85	83		
890-2272-1	SW10	91	96		
LCS 880-24832/2-A	Lab Control Sample	109	106		
LCSD 880-24832/3-A	Lab Control Sample Dup	107	108		
MB 880-24832/1-A	Method Blank	90	98		

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-2272-1 SDG: Eddy Co, NM

Prep Type: Total/NA

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Eurofins Carlsbad

### **QC Sample Results**

**Client: Ensolum** Project/Site: East Pecos Federal 22 #003H

Lab Sample ID: MB 880-24865/5-A

**Matrix: Solid** 

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

Analysis Batch: 24907								Prep Batch:	24865
-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130				05/05/22 09:49	05/05/22 17:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/05/22 09:49	05/05/22 17:09	1

#### Lab Sample ID: LCS 880-24865/1-A Matrix: Solid Analysis Batch: 24907

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09018		mg/Kg		90	70 - 130	
Toluene	0.100	0.09404		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.09779		mg/Kg		98	70 - 130	
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130	
o-Xylene	0.100	0.1105		mg/Kg		110	70 - 130	

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

#### Lab Sample ID: LCSD 880-24865/2-A Matrix: Solid

#### Analysis Batch: 24907

Analysis Batch: 24907							Prep E		24865
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09163		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09036		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.09342		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1947		mg/Kg		97	70 - 130	5	35
o-Xylene	0.100	0.1054		mg/Kg		105	70 - 130	5	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

#### Lab Sample ID: 880-14421-A-3-B MS Matrix: Solid

	Matrix: Solid Analysis Batch: 24907									Prep Type: Total/NA Prep Batch: 24865
		Sample	Sample	Spike	MS	MS				%Rec
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ē	Benzene	<0.00200	U	0.101	0.07720		mg/Kg		77	70 - 130
1	Toluene	<0.00200	U	0.101	0.07287		mg/Kg		72	70 - 130

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**Client Sample ID: Matrix Spike** 

Job ID: 890-2272-1 SDG: Eddy Co, NM

Prep Type: Total/NA

### **Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA** 

Prep Batch: 24865

<b>Client Sample I</b>	D: Lab Control Sample Dup
	Prep Type: Total/NA

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### **QC Sample Results**

**Client: Ensolum** Project/Site: East Pecos Federal 22 #003H

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

Lab Sample ID: 880-1442 Matrix: Solid Analysis Batch: 24907	1-A-3-B MS						CI	lient Sa	mple ID: I Prep Ty Prep E	pe: Tot	al/NA	
Analyte	•	Sample Qualifier	Spike Added	-	MS Qualifier	Unit	D	%Rec	%Rec Limits			5
Ethylbenzene	<0.00200	U F1	0.101	0.06917	F1	mg/Kg		69	70 - 130			
m-Xylene & p-Xylene	< 0.00399	U	0.202	0.1429		mg/Kg		71	70 - 130			
o-Xylene	<0.00200	U	0.101	0.07782		mg/Kg		77	70 - 130			7
	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									8
4-Bromofluorobenzene (Surr)	108		70 - 130									
1,4-Difluorobenzene (Surr)	103		70 - 130									9
Lab Sample ID: 880-1442 <sup>,</sup> Matrix: Solid Analysis Batch: 24907	1-A-3-C MSD	)				Client S	Samp	le ID: N	latrix Spil Prep Ty Prep E		al/NA	
-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00200	U	0.0996	0.09416		mg/Kg		95	70 - 130	20	35	
Toluene	<0.00200	U	0.0996	0.08901		mg/Kg		89	70 - 130	20	35	
Ethylbenzene	<0.00200	U F1	0.0996	0.09019		mg/Kg		91	70 - 130	26	35	13
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1874		mg/Kg		94	70 - 130	27	35	
o-Xylene	<0.00200	U	0.0996	0.1014		mg/Kg		102	70 - 130	26	35	

o-Xylene	<0.00200	U	0.0996
	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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

#### Lab Sample ID: MB 880-24832/1-A **Matrix: Solid** Analysis Batch: 24856

Analysis Batch: 24856								Prep Batch:	24832
	MB	MB							
Analyte	Result	Qualifier	RL	MDL (	Jnit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	r	ng/Kg		05/04/22 14:31	05/05/22 11:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	r	ng/Kg		05/04/22 14:31	05/05/22 11:02	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	r	ng/Kg		05/04/22 14:31	05/05/22 11:02	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	98		70 - 130

#### Lab Sample ID: LCS 880-24832/2-A Matrix: Solid Analysis Batch: 24856

Analysis Batch: 24856							Prep B	atch: 24832
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1034		mg/Kg		103	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1088		mg/Kg		109	70 - 130	
C10-C28)								

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

05/04/22 14:31 05/05/22 11:02

05/04/22 14:31 05/05/22 11:02

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

#### Job ID: 890-2272-1 SDG: Eddy Co, NM

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### **QC Sample Results**

**Client: Ensolum** Project/Site: East Pecos Federal 22 #003H

### Method: 8015B NM - Die

Method: 8015B NM - D	iesel Rang	ge Orgar	nics (DRO)	(GC) (	Continu	ied)					
Lab Sample ID: LCS 880-	24832/2-A					Clier	nt Sai	nple ID	: Lab Cor	trol Sa	mple
Matrix: Solid									Prep Ty	pe: Tot	al/NA
Analysis Batch: 24856									Prep E	atch: 2	24832
	LCS	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	106		70 - 130								
	/										_
Lab Sample ID: LCSD 88	0-24832/3-A				C	client Sa	mple	ID: Lat	Control		
Matrix: Solid									Prep Ty		
Analysis Batch: 24856			Spike		LCSD				%Rec	Batch: 2	RPD
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	894.7		mg/Kg		89	70 - 130	14	20
(GRO)-C6-C10						00					
Diesel Range Organics (Over			1000	983.9		mg/Kg		98	70 - 130	10	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	107		70 - 130								
o-Terphenyl	108		70 - 130								
Lab Sample ID: 880-1439	7-A-7-C MS						C	ient Sa	mple ID: I	Matrix 9	Snike
Matrix: Solid									Prep Ty		
Analysis Batch: 24856										atch: 2	
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<50.0	U	1000	817.0		mg/Kg		82	70 - 130		
(GRO)-C6-C10	-50.0		4000	005.0				00	70 400		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	905.9		mg/Kg		88	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	87		70 - 130								
o-Terphenyl	85		70 - 130								
Lab Sample ID: 880-1439	7-A-7-D MSD	)				Client S	Samp	le ID: N	latrix Spil	ce Dup	licate
Matrix: Solid									· Prep Ty		
Analysis Batch: 24856									Prep E	atch: 2	24832
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0		998	787.9		mg/Kg		79	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	884.1		mg/Kg		86	70 - 130	2	20
	MSD	MSD									
Surrogate	%Recovery		Limits								
	· · · · · ·										
1-Chlorooctane	85		70 - 130								

### **QC Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

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Job ID: 890-2272-1 SDG: Eddy Co, NM

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-248 Matrix: Solid	69/1-A								Cli	ent Sai	nple ID: N	lethod   'ype: So	
											Frep	ype. St	Juble
Analysis Batch: 24914		ИВ МВ											
Analyte		ult Qualifier		RL		MDL	Unit		DI	Droporod	Anah	ad	Dil Fac
				5.00				~	<u> </u>	Prepared	Analy 05/05/22		
Chlonde	<5.	00 0		5.00			mg/K	g			05/05/22	13:40	I
Lab Sample ID: LCS 880-24	869/2-A							Clie	ent Sa	imple II	D: Lab Co	ntrol Sa	ample
Matrix: Solid												ype: So	
Analysis Batch: 24914												<b>J P C C</b>	
			Spike		LCS	LCS					%Rec		
Analyte			Added		Result	Qua	lifier	Unit	D	%Rec	Limits		
Chloride			250		264.9			mg/Kg		106	90 - 110		
_ Lab Sample ID: LCSD 880-2	4860/3-4						·	liont S	ample		b Control	Sample	
Matrix: Solid	4005/J-A						Ŭ	ment 3	ampie	; ID. La		ype: So	
Analysis Batch: 24914											гіері	ype. St	Juble
Analysis Datch. 24514			Spike		LCSD		п				%Rec		RPD
Analyte			Added		Result			Unit	D	%Rec	Limits	RPD	Limit
Chloride			250		263.4			mg/Kg		105	90 - 110	1	20
 Lab Sample ID: 890-2272-1	MS									С	lient Sam	nle ID <sup>.</sup> :	SW10
Matrix: Solid										-		ype: So	
Analysis Batch: 24914												,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Sample S	Sample	Spike		MS	MS					%Rec		
Analyte	Result C	Qualifier	Added		Result	Qua	lifier	Unit	D	%Rec	Limits		
Chloride	388		250		624.0			mg/Kg		94	90 - 110		
 Lab Sample ID: 890-2272-1	MSD									С	lient Sam	ple ID: S	SW10
Matrix: Solid												ype: So	
Analysis Batch: 24914													
	Sample S	Sample	Spike		MSD	MSD	)				%Rec		RPD
Analyte	Result C	•	Added		Result	Qua	lifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	388		250		638.5			mg/Kg		100	90 - 110	2	20

### **QC Association Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

### GC VOA

#### Prep Batch: 24865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-2272-1	SW10	Total/NA	Solid	5035	
MB 880-24865/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24865/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24865/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14421-A-3-B MS	Matrix Spike	Total/NA	Solid	5035	
880-14421-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
analysis Batch: 2490	7				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-2272-1	SW10	Total/NA	Solid	8021B	2486
MB 880-24865/5-A	Method Blank	Total/NA	Solid	8021B	2486
LCS 880-24865/1-A	Lab Control Sample	Total/NA	Solid	8021B	2486
LCSD 880-24865/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2486
880-14421-A-3-B MS	Matrix Spike	Total/NA	Solid	8021B	2486
880-14421-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	2486
nalysis Batch: 2493	3				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
890-2272-1	SW10	Total/NA	Solid	Total BTEX	

#### Prep Batch: 24832

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2272-1	SW10	Total/NA	Solid	8015NM Prep	
MB 880-24832/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24832/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24832/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14397-A-7-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14397-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 24856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2272-1	SW10	Total/NA	Solid	8015B NM	24832
MB 880-24832/1-A	Method Blank	Total/NA	Solid	8015B NM	24832
LCS 880-24832/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24832
LCSD 880-24832/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24832
880-14397-A-7-C MS	Matrix Spike	Total/NA	Solid	8015B NM	24832
880-14397-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24832

#### Analysis Batch: 24913

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2272-1	SW10	Total/NA	Solid	8015 NM	

#### HPLC/IC

#### Leach Batch: 24869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2272-1	SW10	Soluble	Solid	DI Leach	
MB 880-24869/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24869/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24869/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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#### Job ID: 890-2272-1 SDG: Eddy Co, NM

### **QC Association Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

### HPLC/IC (Continued)

#### Leach Batch: 24869 (Continued)

Lab Sample ID 890-2272-1 MS	Client Sample ID SW10	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
890-2272-1 MSD	SW10	Soluble	Solid	DI Leach	

#### Analysis Batch: 24914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2272-1	SW10	Soluble	Solid	300.0	24869
MB 880-24869/1-A	Method Blank	Soluble	Solid	300.0	24869
LCS 880-24869/2-A	Lab Control Sample	Soluble	Solid	300.0	24869
LCSD 880-24869/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24869
890-2272-1 MS	SW10	Soluble	Solid	300.0	24869
890-2272-1 MSD	SW10	Soluble	Solid	300.0	24869

Job ID: 890-2272-1

SDG: Eddy Co, NM

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### Lab Chronicle

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

#### Client Sample ID: SW10 Date Collected: 05/03/22 11:00 Date Received: 05/03/22 14:17

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24865	05/05/22 09:49	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/05/22 17:58	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24933	05/05/22 19:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24913	05/05/22 14:52	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24832	05/05/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24856	05/05/22 13:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24869	05/05/22 10:08	SC	XEN MID
Soluble	Analysis	300.0		1			24914	05/05/22 14:13	СН	XEN MID

#### Laboratory References:

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

Job ID: 890-2272-1 SDG: Eddy Co, NM

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# Lab Sample ID: 890-2272-1

Matrix: Solid

**Eurofins Carlsbad** 

### **Accreditation/Certification Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2272-1 SDG: Eddy Co, NM

#### Laboratory: Eurofins Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date
exas	NE	LAP	T104704400-21-22	06-30-22
The following enclutes	are included in this rene	rt but the leberatory is m	ot partified by the governing outbority	This list may include analytes for whis
the agency does not o	•	rt, but the laboratory is r	lot certified by the governing authority.	This list may include analytes for whic
• •	•	Matrix	Analyte	This list may include analytes for which
the agency does not o	ffer certification.			

**Eurofins Carlsbad** 

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### **Method Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2272-1 SDG: Eddy Co, NM

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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:

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

### Sample Summary

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Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2272-1 SDG: Eddy Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2272-1	SW10	Solid	05/03/22 11:00	05/03/22 14:17	0 - 4'

									www.xenco.com	Fage of
Project Manager:	Anna Bvers			Bill to: (if different)		Jim Raley			Work Order Comments	omments
	Ensolum		-	Company Name:		×		Progra	m: UST/PST 🗌 PRP 🗌 Brown	Program: UST/PST 🗌 PRP 🗌 Brownfields 🗌 RRC 🔲 Superfund 🗌
	3122 National Parks HWY	(S HWY	7	Address:		5315 Buena Vista Dr	Dr.	State o	State of Project:	
te ZIP:	Carlsbad, NM 88220	20	0	City, State ZIP:	Cart	Cartsbad, NM 88220	220	Reporti	Reporting: Level II 🗌 Level III 🗍 PST/UST 📋 TRRP 🗍	
	575-200-6754		Email:	AByers@Ensolum.com	lum.com			Delivera	Deliverables: EDD ADaPT	Other:
Name	East Perns Federal 22 #003H	ral 22 #003H	Turn	Turn Around			ANALYSIS REQUEST	REQUEST		Preservative Codes
Project Number:	03A1987011	7011	Routine	Rush	Pres. Code					None: NO DI Water: H <sub>2</sub> O
Project Location:	Eddy County, NM	ty, NM	Due Date:	24HR				_	-	Cool: Cool MeOH: Me
Sampler's Name:	Gilbert Moreno	oreno	TAT starts the	TAT starts the day received by						HCL: HC HNO3: HN
CC #	1061208201	201	the lab, if rece	the lab, if received by 4:30pm	rs	_				H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Te	C CYes No	Wet lce:	Yes No	nete 0)					H3PO4: HP
Samples Received Intact:		_	er ID:	TWINE						NaHSO4: NABIS
Cooler Custody Seals:	Yes No	NA Correction Factor:	actor:	202	-		890-2272 Chain (	hain of Custody		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ; NaSO <sub>3</sub>
Sample Custody Seals:	Yes No	N/A Temperature Reading:	e Reading:	1.8	S (E			-		Zn Acetate+NaOH: Zn
Total Containers:		Corrected T	Corrected Temperature:	1.6	RIDE					NaOH+Ascorbic Acid: SAPC
Sample Identification		Matrix Date Sampled	Time Sampled	Depth Comp	Cont CHLOF	TPH (8 BTEX (				Sample Comments
SW10	0	5.3.22	11:00 0	0-4' Comp	1 ×	××				
										Incident ID
										nAPP2123361366
				1		2	22			
			2	lon	P	10				
			6	10		-				
	_			(	_	_				
Total-200.7 / 6010	10 200.8 / 6020:		8RCRA 13PPM	M Texas 11	AI Sb /	As Ba Be B		Pb Mg Mn	K Se	a Sr TI Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	nd Metal(s) to be a	nalyzed	TCLP / SPLP 6010:	LP 6010: 8R	8RCRA Sb	As Ba Be	Sb As Ba Be Cd Cr Co Cu Pb Mn N	Mn Mo Ni Se Ag Ti U	Ag TI U Hg: 1631 /.	Hg: 1631 / 245.1 / /4/0 / /4/1
Notice: Signature of this document and relinquishme of service. Eurofins Xenco will be liable only for the of Eurofins Xenco. A minimum charge of \$86.00 will	locument and relinquish o will be liable only for th mum charge of \$85.00 w	nent of samples cor e cost of samples a ill be applied to eaci	nd shall not assur nd shall not assur	ırchase order from ne any responsibil arge of \$5 for each	ity for any los sample subn	any to Eurofins ) ses or expense nitted to Eurofir	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 charce of \$66.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotial of Eurofins Xenco.	ors. It assigns es are due to ciu erms will be enf	ntractors. It assigns standard terms and conditions h losses are due to circumstances beyond the control hese terms will be enforced unless previously negotiated.	
Relinguisped by: (Signature)	(Signature)	Received by:	d by: (Signature)	ure)	,Dat	Date/Time		(Signature)	Received by: (Signature)	e) Date/Time
2 april 1	Y	V.Ca	U		5/3/	22 23	72			
2						•				

5/5/2022

5 6

12 13 14

Chain of Custody Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
### Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

#### Login Number: 2272 List Number: 1 Creator: Clifton, Cloe

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

Job Number: 890-2272-1

List Source: Eurofins Carlsbad

SDG Number: Eddy Co, NM

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Job Number: 890-2272-1 SDG Number: Eddy Co, NM

List Source: Eurofins Midland

List Creation: 05/05/22 11:31 AM

### Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 2272 List Number: 2 Creator: Rodriguez, Leticia

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

Received by OCD: 7/12/2022 7:45:10 AM

# 🛟 eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

Eurofins Carlsbad 1089 N Canal St. Carlsbad, NM 88220 Tel: (575)988-3199

### Laboratory Job ID: 890-2273-1

Laboratory Sample Delivery Group: Eddy Co, NM Client Project/Site: East Pecos Federal 22 #003H

### For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

### Attn: Joseph Hernandez

Brianna Tel

Authorized for release by: 5/5/2022 8:14:56 PM Brianna Teel, Project Manager (432)704-5440 Brianna.Teel@et.eurofinsus.com

Designee for

Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

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SDG: Eddy Co, NM

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ceived by OCI	D: 7/12/2022 7:45:10 AM	Page 41 of	f 61
	Definitions/Glossary		1
Client: Ensolu Project/Site: I	um East Pecos Federal 22 #003H	Job ID: 890-2273-1 SDG: Eddy Co, NM	2
Qualifiers			3
GC VOA Qualifier	Qualifier Description		
F1	MS and/or MSD recovery exceeds control limits.		
U	Indicates the analyte was analyzed for but not detected.		5
GC Semi VO	Α		
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.		8
Glossary			C
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		4
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)

Method Detection Limit MDL

ML Minimum Level (Dioxin) MPN Most Probable Number

MQL Method Quantitation Limit NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent

POS Positive / Present Practical Quantitation Limit

PQL

PRES Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry) RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)

TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Carlsbad** 

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### **Case Narrative**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2273-1 SDG: Eddy Co, NM

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### Job ID: 890-2273-1

#### Laboratory: Eurofins Carlsbad

#### Narrative

Job Narrative 890-2273-1

#### Receipt

The sample was received on 5/3/2022 2:17 PM. 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 1.6°C

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24865 and analytical batch 880-24907 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### GC Semi VOA

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

#### HPLC/IC

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

### **Client Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

#### Client Sample ID: FS07 Date Collected: 05/03/22 12:35 Date Received: 05/03/22 14:17

Sample Depth: 3 - 4'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/05/22 09:49	05/05/22 18:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/05/22 09:49	05/05/22 18:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/05/22 09:49	05/05/22 18:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/05/22 09:49	05/05/22 18:19	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/05/22 09:49	05/05/22 18:19	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/05/22 09:49	05/05/22 18:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				05/05/22 09:49	05/05/22 18:19	1
1,4-Difluorobenzene (Surr)	97		70 - 130				05/05/22 09:49	05/05/22 18:19	1
Method: Total BTEX - Total B	TEX Calcula	tion							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/05/22 19:48	1
Mathadi ON4F MINA Dises P	n n n N		201						
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		Qualifier		MDL	Unit mg/Kg	D	Prepared	Analyzed 05/05/22 20:07	Dil Fac
Analyte Total TPH	Result <50.0	Qualifier U	<b>RL</b> 50.0	MDL		<u>D</u>	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel R	Result <50.0	Qualifier U	<b>RL</b> 50.0			<u>D</u> 	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics	Result <50.0	Qualifier U ics (DRO) Qualifier	(GC)		mg/Kg			05/05/22 20:07	1
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 Cange Organ Result	Qualifier U ics (DRO) Qualifier U	(GC) RL		mg/Kg Unit		Prepared 05/05/22 10:00	05/05/22 20:07	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0 Range Organ Result <50.0	Qualifier U ics (DRO) Qualifier U U	(GC) <u>RL</u> <u>50.0</u>		mg/Kg Unit mg/Kg		Prepared 05/05/22 10:00 05/05/22 10:00	05/05/22 20:07 Analyzed 05/05/22 14:19	1 <b>Dil Fac</b> 1
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0 Result <50.0 <50.0 <50.0	Qualifier U ics (DRO) Qualifier U U U	(GC) RL 50.0 RL 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 05/05/22 10:00 05/05/22 10:00	05/05/22 20:07 Analyzed 05/05/22 14:19 05/05/22 14:19	1 Dil Fac 1
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result           <50.0	Qualifier U ics (DRO) Qualifier U U U	RL       50.0       (GC)       RL       50.0       50.0       50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 05/05/22 10:00 05/05/22 10:00 05/05/22 10:00	05/05/22 20:07 Analyzed 05/05/22 14:19 05/05/22 14:19 05/05/22 14:19 Analyzed	1 Dil Fac 1 1 1
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result           <50.0	Qualifier U ics (DRO) Qualifier U U U	RL         50.0         (GC)         RL         50.0         50.0         50.0         50.0         Limits		mg/Kg Unit mg/Kg mg/Kg		Prepared 05/05/22 10:00 05/05/22 10:00 05/05/22 10:00 Prepared	Analyzed           05/05/22 20:07           Analyzed           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19	1 Dil Fac 1 1 1 1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result           <50.0	Qualifier U ics (DRO) Qualifier U U U Qualifier	RL         50.0           (GC)         RL           50.0         50.0           50.0         50.0           50.0         70.130           70-130         70-130		mg/Kg Unit mg/Kg mg/Kg		Prepared 05/05/22 10:00 05/05/22 10:00 05/05/22 10:00 Prepared 05/05/22 10:00	Analyzed           05/05/22 20:07           Analyzed           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19	1 Dil Fac 1 1 1 1 <i>Dil Fac</i> 1
Analyte Total TPH Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result           <50.0	Qualifier U ics (DRO) Qualifier U U U Qualifier	RL         50.0           (GC)         RL           50.0         50.0           50.0         50.0           50.0         70.130           70-130         70-130	MDL	mg/Kg Unit mg/Kg mg/Kg		Prepared 05/05/22 10:00 05/05/22 10:00 05/05/22 10:00 Prepared 05/05/22 10:00	Analyzed           05/05/22 20:07           Analyzed           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19           05/05/22 14:19	1 Dil Fac 1 1 1 1 <i>Dil Fac</i> 1

Job ID: 890-2273-1 SDG: Eddy Co, NM

### Lab Sample ID: 890-2273-1

Matrix: Solid

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**Eurofins Carlsbad** 

### **Surrogate Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

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

		Percent Surrogate Recovery (Acceptance Limits					
		BFB1	DFBZ1				
Lab Sample ID	Client Sample ID	(70-130)	(70-130)				
880-14421-A-3-B MS	Matrix Spike	108	103				
880-14421-A-3-C MSD	Matrix Spike Duplicate	109	103				
890-2273-1	FS07	103	97				
LCS 880-24865/1-A	Lab Control Sample	107	98				
LCSD 880-24865/2-A	Lab Control Sample Dup	103	102				
MB 880-24865/5-A	Method Blank	97	96				

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid				Prep Type: Total/NA	
			Percer	t Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-14397-A-7-C MS	Matrix Spike	87	85		13
880-14397-A-7-D MSD	Matrix Spike Duplicate	85	83		
890-2273-1	FS07	112	115		
LCS 880-24832/2-A	Lab Control Sample	109	106		
LCSD 880-24832/3-A	Lab Control Sample Dup	107	108		
MB 880-24832/1-A	Method Blank	90	98		

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

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### **QC Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

Lab Sample ID: MB 880-24865/5-A

**Matrix: Solid** 

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

Analysis Batch: 24907								Prep Batch:	24865
-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/05/22 09:49	05/05/22 17:09	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130				05/05/22 09:49	05/05/22 17:09	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/05/22 09:49	05/05/22 17:09	1

#### Lab Sample ID: LCS 880-24865/1-A Matrix: Solid Analysis Batch: 24907

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09018		mg/Kg		90	70 - 130	
Toluene	0.100	0.09404		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.09779		mg/Kg		98	70 - 130	
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130	
o-Xylene	0.100	0.1105		mg/Kg		110	70 - 130	

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

#### Lab Sample ID: LCSD 880-24865/2-A Matrix: Solid

#### Analysis Batch: 24907

Analysis Batch: 24907							Prep E	-	
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09163		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09036		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.09342		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1947		mg/Kg		97	70 - 130	5	35
o-Xylene	0.100	0.1054		mg/Kg		105	70 - 130	5	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

#### Lab Sample ID: 880-14421-A-3-B MS Matrix: Solid

Matrix: Solid Analysis Batch: 24907									Prep Type: Total/NA Prep Batch: 24865
	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00200	U	0.101	0.07720		mg/Kg		77	70 - 130
Toluene	<0.00200	U	0.101	0.07287		mg/Kg		72	70 - 130

### **Eurofins Carlsbad**

**Client Sample ID: Matrix Spike** 

Job ID: 890-2273-1 SDG: Eddy Co, NM

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

### **Client Sample ID: Lab Control Sample**

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

**Prep Type: Total/NA** 

**Prep Type: Total/NA** 

Prep Batch: 24865

### **QC Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

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

Lab Sample ID: 880-1442 Matrix: Solid Analysis Batch: 24907	1-A-3-B MS						CI	ient Sa	mple ID: I Prep Ty Prep E		al/NA	
	Sample	Sample	Spike	MS	MS				%Rec			5
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Ethylbenzene	<0.00200	U F1	0.101	0.06917	F1	mg/Kg		69	70 - 130			
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1429		mg/Kg		71	70 - 130			
o-Xylene	<0.00200	U	0.101	0.07782		mg/Kg		77	70 - 130			7
	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									8
4-Bromofluorobenzene (Surr)	108		70 - 130									
1,4-Difluorobenzene (Surr)	103		70 - 130									9
Lab Sample ID: 880-1442 Matrix: Solid	1-A-3-C MSC	)				Client S	Samp	le ID: N	latrix Spil Prep Ty			10
Analysis Batch: 24907										Batch: 2		
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00200	U	0.0996	0.09416		mg/Kg		95	70 - 130	20	35	
Toluene	<0.00200	U	0.0996	0.08901		mg/Kg		89	70 - 130	20	35	
Ethylbenzene	<0.00200	U F1	0.0996	0.09019		mg/Kg		91	70 - 130	26	35	13
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1874		mg/Kg		94	70 - 130	27	35	
o-Xylene	<0.00200	U	0.0996	0.1014		mg/Kg		102	70 - 130	26	35	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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

#### Lab Sample ID: MB 880-24832/1-A **Matrix: Solid** Analysis Batch: 24856

Analysis Batch: 24856								Prep Batch:	24832
	MB	MB							
Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	r	ng/Kg		05/04/22 14:31	05/05/22 11:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	r	ng/Kg		05/04/22 14:31	05/05/22 11:02	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	r	ng/Kg		05/04/22 14:31	05/05/22 11:02	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	90	70 - 130
o-Terphenyl	98	70 - 130

#### Lab Sample ID: LCS 880-24832/2-A Matrix: Solid Analysis Batch: 24856

Analysis Batch: 24856							Prep B	atch: 24832
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1034		mg/Kg		103	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1088		mg/Kg		109	70 - 130	
C10-C28)								

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

05/04/22 14:31 05/05/22 11:02

05/04/22 14:31 05/05/22 11:02

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

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1

### **QC Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

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

24832/2-A					Clier	nt Sai	mple ID	Prep Ty	pe: Tot	al/NA
								Prep E	atch: 2	24032
LCS	LCS									
%Recovery	Qualifier	Limits								
109		70 - 130								
106		70 - 130								
-24832/3-A				C	Client Sa	mple	ID: Lat			
									-	
									atch: 2	
		Spike	LCSD	LCSD						RPD
		Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
		1000	894.7		mg/Kg		89	70 - 130	14	20
		4000						70 400	40	
		1000	983.9		mg/Kg		98	70 - 130	10	20
%Recovery	Qualifier	Limits								
107		70 - 130								
108		70 - 130								
Sample	Sample	Spike	MS	MS						
•	•	Added			Unit	D	%Rec	Limits		
<50.0	U	1000	817.0		mg/Kg		82	70 - 130		
<50.0	U	1000	905.9		mg/Kg		88	70 - 130		
MS	MS									
		Limits								
		70 - 130								
-A-7-D MSD	)				Client S	Samp	le ID: N	Aatrix Spil	ke Dup	licate
						1				
Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
<50.0	U	998	787.9		mg/Kg		79	70 - 130	4	20
<50.0	U	998	884.1		mg/Kg		86	70 - 130	2	20
MSD	MSD									
MSD %Recoverv		Limits								
MSD %Recovery 85		Limits								
	LCS %Recovery 109 106 -24832/3-A %Recovery 107 108 7-A-7-C MS Sample Result <50.0 \$50.0 \$50.0 \$50.0 \$50.0 \$50.0 \$50.0 \$50.0	LCS         LCS           %Recovery         Qualifier           109         106           -24832/3-A	LCS         LCS           %Recovery         Qualifier         Limits           109         70-130           70-130         70-130           -24832/3-A         Spike	LCSLCSCS $\frac{NRecovery}{109}$ $\frac{Qualifier}{200}$ $\frac{Limits}{70 - 130}$ $106$ $70 - 130$ -24832/3-A	LCSLCSUalifierLimits10970.13010670.130-24832/3-AC-24832/3-AAddedAddedResultQualifier1000983.9LCSDLCSD $\frac{KSD}{Kecovery}$ Qualifier1000983.9LCSDLCSD $\frac{MRecovery}{108}$ Qualifier1000983.9AddedResultQualifierLimits10770.13010870.130P-A-7-C MSSampleSampleSampleSampleNSMS%RecoveryQualifierLimits817.0 $\sim 50.0$ 01000905.9MSMS%RecoveryQualifierLimits70.1308570.1308570.130*A-7-D MSDSampleSampleSampleSampleResultQualifierAddedResultQualifierAddedResultQualifier24.7-D MSDSampleSampleSampleSampleResultQualifierAddedResultQualifier $\sim 50.0$ 0998787.9	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	LCSLCSLimits 70-13010970-130-24832/3-AClient Sample ID: Lat	LCS         LCS         Main and the second s	LCS       LCS       LCS       Prep Batch: 2         %Recovery       Qualifier       Limits       70.130         106       70.130       70.130         -24832/3-A       Client Sample ID: Lab Control Sample Prep Type: Tot Prep Batch: 2

### **QC Sample Results**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2480 Matrix: Solid	69/1-A							CI	ient San	nple ID: M Prep Ty		
Analysis Batch: 24914												
• • •	-	MB MB						_				
Analyte		ult Qualifier		RL		MDL Un	-	<u>D</u>	Prepared	Analy		Dil Fac
Chloride	<5	.00 U		5.00		mg	J/Kg			05/05/22	13:46	1
Lab Sample ID: LCS 880-248	369/2 <b>-</b> 4						Cli	ent Sa	ample ID	: Lab Cor	ntrol Sa	mple
Matrix: Solid										Prep T		
Analysis Batch: 24914											, , , , , , , , , , , , , , , , , , , ,	
			Spike		LCS	LCS				%Rec		
Analyte			Added		Result	Qualifie	er Unit	0	) %Rec	Limits		
Chloride			250		264.9		mg/Kg		106	90 - 110		
Lab Sample ID: LCSD 880-24	4869/3-A						Client S	Sampl	e ID: Lat	o Control		
Matrix: Solid										Prep T	ype: So	oluble
Analysis Batch: 24914												
			Spike			LCSD				%Rec		RPD
Analyte			Added			Qualifie		C		Limits	RPD	Limit
Chloride			250		263.4		mg/Kg		105	90 - 110	1	20
Lab Sample ID: 890-2272-A-	1.F MS							6	lient Sa	mple ID:	Matrix	Snike
Matrix: Solid										Prep T		
Analysis Batch: 24914										i top i	, , , , , , , , , , , , , , , , , , , ,	
	Sample S	Sample	Spike		MS	MS				%Rec		
Analyte	Result (	Qualifier	Added		Result	Qualifie	er Unit	0	) %Rec	Limits		
Chloride	388		250		624.0		mg/Kg		94	90 - 110		
							Olion					llasta
Lab Sample ID: 890-2272-A-	1-r 102D						Clien	ι sam	pie iu: N	Aatrix Spil		
Matrix: Solid										Prep T	ype: So	nuble
Analysis Batch: 24914	Sample S	Samplo	Spike		MSD	MSD				%Rec		RPD
Analyte	Result (	•	Added		-	Qualifie	er Unit	0	) %Rec	Limits	RPD	Limit
Chloride	388		250		638.5	Quaime		L	100	90 - 110	2	20
Chionae	300		200		030.5		mg/Kg		100	90-110	Z	20

Job ID: 890-2273-1

SDG: Eddy Co, NM

### **QC** Association Summary

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

### GC VOA

#### Prep Batch: 24865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-2273-1	FS07	Total/NA	Solid	5035		
MB 880-24865/5-A	Method Blank	Total/NA	Solid	5035		5
LCS 880-24865/1-A	Lab Control Sample	Total/NA	Solid	5035	Ī	
LCSD 880-24865/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		
880-14421-A-3-B MS	Matrix Spike	Total/NA	Solid	5035		
880-14421-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035		
Analysis Batch: 2490	7					8
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-2273-1	FS07	Total/NA	Solid	8021B	24865	9
MB 880-24865/5-A	Method Blank	Total/NA	Solid	8021B	24865	
LCS 880-24865/1-A	Lab Control Sample	Total/NA	Solid	8021B	24865	
LCSD 880-24865/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24865	
880-14421-A-3-B MS	Matrix Spike	Total/NA	Solid	8021B	24865	
880-14421-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24865	
Analysis Batch: 2493	4					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-2273-1	FS07	Total/NA	Solid	Total BTEX		
GC Semi VOA						

#### Prep Batch: 24832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2273-1	FS07	Total/NA	Solid	8015NM Prep	
MB 880-24832/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24832/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24832/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14397-A-7-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14397-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 24856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2273-1	FS07	Total/NA	Solid	8015B NM	24832
MB 880-24832/1-A	Method Blank	Total/NA	Solid	8015B NM	24832
LCS 880-24832/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24832
LCSD 880-24832/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24832
880-14397-A-7-C MS	Matrix Spike	Total/NA	Solid	8015B NM	24832
880-14397-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24832

#### Analysis Batch: 24938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2273-1	FS07	Total/NA	Solid	8015 NM	

### HPLC/IC

#### Leach Batch: 24869

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2273-1	FS07	Soluble	Solid	DI Leach	
MB 880-24869/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24869/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24869/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

Job ID: 890-2273-1

SDG: Eddy Co, NM

### Released to Imaging: 7/18/2022 3:29:53 PM

### **QC Association Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

### HPLC/IC (Continued)

#### Leach Batch: 24869 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	<b>Method</b>	Prep Batch
890-2272-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2272-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Analysis Batch: 24914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2273-1	FS07	Soluble	Solid	300.0	24869
MB 880-24869/1-A	Method Blank	Soluble	Solid	300.0	24869
LCS 880-24869/2-A	Lab Control Sample	Soluble	Solid	300.0	24869
LCSD 880-24869/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24869
890-2272-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	24869
890-2272-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24869

Job ID: 890-2273-1 SDG: Eddy Co, NM

**Eurofins Carlsbad** 

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### Lab Chronicle

Client: Ensolum Project/Site: East Pecos Federal 22 #003H

### Client Sample ID: FS07 Date Collected: 05/03/22 12:35 Date Received: 05/03/22 14:17

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	24865	05/05/22 09:49	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24907	05/05/22 18:19	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24934	05/05/22 19:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24938	05/05/22 20:07	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24832	05/05/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24856	05/05/22 14:19	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24869	05/05/22 10:08	SC	XEN MID
Soluble	Analysis	300.0		1			24914	05/05/22 14:39	СН	XEN MID

#### Laboratory References:

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

Job ID: 890-2273-1

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Job ID: 890-2273-1 SDG: Eddy Co, NM

### Lab Sample ID: 890-2273-1

Matrix: Solid

**Eurofins Carlsbad** 

### **Accreditation/Certification Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2273-1 SDG: Eddy Co, NM

### Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date	
exas	NE	LAP	T104704400-21-22	06-30-22	
				This list many includes an all the formula	
The following analytes the agency does not o	•	rt, but the laboratory is n	ot certified by the governing authority.	This list may include analytes for which	
0,	•	rt, but the laboratory is n Matrix	Analyte	This list may include analytes for which	
the agency does not o	ffer certification.	•			

**Eurofins Carlsbad** 

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### **Method Summary**

Client: Ensolum Project/Site: East Pecos Federal 22 #003H Job ID: 890-2273-1 SDG: Eddy Co, NM

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. 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:

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

### Sample Summary

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Client: Ensolum Project/Site: East Pecos Federal 22 #003H

Job ID: 890-2273-1
SDG: Eddy Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2273-1	FS07	Solid	05/03/22 12:35	05/03/22 14:17	3 - 4'

ect Manager: Anna Byers pany Name: Ensolum state ZIP: Carlsbad, NM 88220	ent Testing	Housto EL Pase Hobbs, Bill to: (if different) Company Name: Address: City, State ZIP:	n, TX (281) 240-4200, Da TX (432) 704-5440, San A , TX (915) 585-3443, Lubt NM (575) 392-7550, Carlsi Jim Raley WPX 5315 Buena Vista Carlsbad, NM 882	allas, TX (214 vntonio, TX (2 bock, TX (80 sbad, NM (57 sbad, NM (57 1 Dr.		4) 902-0300       Work Order No:         210) 509-3334       Work Order No:         16) 794-1296       www.xenco.com       Page         5) 988-3199       www.xenco.com       Page         Program: UST/PST   PRP   Brownfields   RRC           State of Project:         Reporting: Level II   Level III   PST/UST   TRRP
ad, NM 88220		City, State ZIP:	Carlsbad, NM 882	220	Reporting: Level II Level III	
575-200-6754	Em	ail: AByers@Ensolu	m.com			ADaPT Other:
Pecos Federal 22		urn Around		ANALYSIS REQ	JEST	Preservative Codes
03A1987011	Rout	Rush	res.			None: NO
Eddy County, NN		24HR				Cool: Cool
Gilbert Moreno		s the day received by		-	-	
1061208201	the lab, I	f received by 4:30pm	ers			H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na
/	No	-				H <sub>3</sub> PO <sub>4</sub> : HP
	ermometer ID:	1-1-007	_			NaHSO4: NABIS
NO NA	prection Factor:	1.0.2				Na2S2O3: NaSO3
NO NIA	mperature Reading				Custody	Zn Acetate+NaOH: Zn
00	prrected Temperatu	Ire: (-6	015)		_	NaOH+Ascorbic Acid: SAPC
Sample Identification Matrix S		Depth Comp	CHLOF			Sample Comments
S 5.	_	3-4'	× ×			
_						Incident ID
_						nAPP2123361366
		134-11	2-3.22			
	(	m dan				
	$\left  \right $	(				
	_					
200.8 / 6020: al(s) to be analyze	8RC	I3PPM Texas 11	Al Sb As Ba Be B RA Sb As Ba Be (	Fe Pb In Mo	10 Ni K Se / TI U	Ag SiO <sub>2</sub> Na Sr TI Sn U V Z Hg:1631/245.1/7470/7471
and relinquishment of s liable only for the cost of trge of \$85.00 will be app	amples constitutes a v samples and shall not lied to each project an	alid purchase order from c assume any responsibility d a charge of \$5 for each s	ient company to Eurofins Xe for any losses or expenses imple submitted to Eurofins	enco, its affiliates and subcontractors. I i incurred by the client if such losses are s Xenco, but not analyzed. These terms v	assigns standard terms and condition due to circumstances beyond the contr ill be enforced unless previously negot	s ol ated.
(Signature)	Received by: (Si	gnature)	Date/Time	Relinquished by: (Signatu	e) Received by: (Sig	nature) Date/Time
on N.	Ser C		5/3/22 74			
	Tins     Environm       Anna Byers     Ensolum       3122 National Parks HW     Carlsbad, NM 88220       575-200-6754     Carlsbad, NM 88220       575-200-6754     Carlsbad, NM 88220       575-200-6754     Carlsbad, NM 88220       10     200.8 / 6020:       10     200.8 / 6020:       10     200.8 / 6020:       10     200.8 / 6020:       11     S       57     S       7     S       57     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       7     S       8     S       9     S       9     S       9     S       9     S       9     S       9     S       9     S       9     S       9     S       9     S <td>Project Manager:     Anna Byers Company Name:     Ensolum       Adress:     3122 National Parks HWY       City, State ZIP:     Carlsbad, NM 88220       Project Name:     575-200-6754       Project Number:     03A1987011       Project Location:     East Pecos Federal 22 #003H       Cg #     Gilbert Moreno       CG #     East Pecos Federal 22 #003H       Crypiect Number:     03A1987011       Project Location:     Eddy County, NM       Samples Received Intact:     Gilbert Moreno       CC #     Tenp Blank:       Cooler Custody Seals:     Yes No       No     Themometer ID:       Cooler Custody Seals:     Yes No       Matrix     Sampled       Sample Identification     Matrix       Sample dethod(s) and Metal(s) to be analyzed     TCLP       Circle Method(s) and Metal(s) to be analyzed     TCLP       Notice: Signature of the dechy for the cost of samples onstitutes av of disorder state on to state on the sample of state on to state on the sample of the cost of samples on the sample of the cost of th</td> <td>Environment Testing Xenco     Husto EL Page EL Page       Second Company Name:     Bill to: (f different) Company Name:       ad, NM 88220     El Page       0-6754     Email: Address:       ad, NM 88220     City, State ZIP:       0-6754     Email: Address:       Eddy County, NM     Email: Advers@Ensolution (inficient)       Correction     Turn Around TAT starts the day received by 1061208201     Corrected Temperature       Temp Biank:     S     S.3.22       Yes     No     No       Matrix     Sampled     Sampled       S     S.3.22     12:35       ald relinquishment of samples constitutes a vid purchase order from day reso vid to sample sund shall not assume yresponibling rate of station sund as and a scharge of \$5 for each set station</td> <td>Housion, TX (28) yad 400, Di Midar, TX (32) 704-540, San Midar, San Midar, TX (32) 704-540, San Midar, TX (32) 704-740, TX Tiants the day received by 4-300, TX Tiants the day recei</td> <td>Environment Testing Xenco     Environment Testing Humon TX (219) 920-2000       Yenco     Bill to (f different) (Cmpany Name: Allonal Parks HWY     Bill to (f different) Company Name: (Cmpany Name: Allonal Parks HWY     Bill to (f different) Company Name: (Cmpany Name: (Cmpany</td> <td>Int Testing     Housien, TX (21) 204-240, Dallas, TX (214) 902-0000       Holdman, TX (212) 704-540, San Abad, NM (575) 985-319       Enap, TX (915) 985-319       Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 982-319       Oldman, TX (212) 704-540, San Abad, NM (575) 982-319       Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 982-319       Oldman, TX (212) 704-540, San Abad, NM (575) 982-319       Oldman, Turm Abund     Im Reley       City, State Zie.     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Page 55 of 61

### Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

#### Login Number: 2273 List Number: 1 **Creator: Clifton, Cloe**

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

### Login Sample Receipt Checklist

Client: Ensolum

<6mm (1/4").

Login Number: 2273 List Number: 2 Creator: Rodriguez, Leticia

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

Eurofins Carlsbad Released to Imaging: 7/18/2022 3:29:53 PM 14

Job Number: 890-2273-1 SDG Number: Eddy Co, NM

List Source: Eurofins Midland

List Creation: 05/05/22 11:31 AM



### APPENDIX E

**Correspondence Emails** 

From:	Hamlet, Robert, EMNRD
То:	Anna Byers
Cc:	Jim Raley; Joseph Hernandez; Ben Belill; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD
Subject:	RE: [EXTERNAL] WPX Site Activity Update for Week of May 2, 2022
Date:	Thursday, April 28, 2022 10:00:33 AM
Attachments:	image006.png image007.png
	image008.png image009.png

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

Anna,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Robert Hamlet • Environmental Specialist - Advanced Environmental Bureau EMNRD - Oil Conservation Division 811 S. First Street | Artesia, NM 88210 575.909.0302 | robert.hamlet@state.nm.us http://www.emnrd.state.nm.us/OCD/



From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Thursday, April 28, 2022 9:15 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: Fw: [EXTERNAL] WPX Site Activity Update for Week of May 2, 2022

From: Anna Byers <<u>abyers@ensolum.com</u>>

Sent: Thursday, April 28, 2022 9:09 AM

To: Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>>

**Cc:** <u>jim.raley@dvn.com</u> <<u>jim.raley@dvn.com</u>>; Joseph Hernandez <<u>jhernandez@ensolum.com</u>>; Ben Belill <<u>bbelill@ensolum.com</u>>

Subject: [EXTERNAL] WPX Site Activity Update for Week of May 2, 2022

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

Good morning,

WPX anticipates conducting final confirmation soil sampling activities at the following sites between May 2-6, 2022:

#### <u>Ensolum</u>

Site: North Brushy Draw Federal 35 #002H

API: 30-015-40006

Incident Number: NRM2014147987

Site: North Brushy Draw Federal 35 #009H

API: 30-015-42220

Incident Number: NRM2020657799

Site: North Brushy Draw Federal 35#012H

API: 30-015-43603

Incident Number: nAPP2208844411

Site: East Pecos Federal 22 #003H

API: 30-015-42285

Incident Number: nAPP2123361366

Thank you,



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

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator: (	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	124392
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By		Condition Date
jnobui	Closure Report Approved.	7/18/2022

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CONDITIONS

Action 124392