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	NAPP2321448004
District RP	
Facility ID	
Application ID	

# **Release Notification**

			Resp	onsible Part	y	
Responsible Party Forty Acres Energy			OGRID 3	71416		
Contact Name Alex Bolanos					elephone 832-68	89-3788
		energyus.com				NAPP2321448004
			'Y Suite 725, H			
				of Release Se		
Latitude 32	2.54431				-103.3306	<u> </u>
Site Name W	est Eumor	nt Unit Federal	D Batterv	Site Type	Batterv	
Date Release	Discovered	08/02/2022		API# (if app		
Unit Letter	Section	Township	Range	Cour	nty	
Е	26	208	36E	Lea		
Surface Owne	r: State	Federal Tr	ibal Private (A	Clay Colume of I		)
Crude Oi	Materia	l(s) Released (Select al Volume Release	l that apply and attach o	calculations or specific	Volume Reco	volumes provided below) vered (bbls) 0 bbls
Produced		Volume Release			Volume Reco	
Is the concentration of dissolved chloric produced water >10,000 mg/l?			nloride in the	Yes N	,	
Condensate Volume Released (bbls)			Volume Reco	vered (bbls)		
Natural Gas Volume Released (Mcf)				Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units		units)	Volume/Weig	tht Recovered (provide units)		
Cause of Rel	benn.	Response en	ioris included	removal of imi	mediate soil	ned to the tank battery earthen impacts. Environmental and develop corrective action

Received by OCD: 9/21/2023/8:14:39 AM State of New Mexico
Page 2 Oil Conservation Division

P	ağ	e	2	eo i	f 1	7	5
			$\sigma$	- 3		4	

Incident ID	NAPP2321448004
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the respon	nsible party consider this a major release?
Yes No		
If YES, was immediate n	otice given to the OCD? By whom? To wh	nom? When and by what means (phone, email, etc)?
	Initial R	esponse
The responsible	party must undertake the following actions immediated	y unless they could create a safety hazard that would result in injury
■ The source of the rele	ease has been stopped.	
	as been secured to protect human health and	
		likes, absorbent pads, or other containment devices.
•	ecoverable materials have been removed and dabove have not been undertaken, explain	
P. 10.15.20.0 P. (4) NIV		
has begun, please attach within a lined containmen	a narrative of actions to date. If remedial nt area (see 19.15.29.11(A)(5)(a) NMAC), p	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred clease attach all information needed for closure evaluation.
regulations all operators are public health or the environs failed to adequately investig addition, OCD acceptance of and/or regulations.	required to report and/or file certain release noti ment. The acceptance of a C-141 report by the C gate and remediate contamination that pose a thre of a C-141 report does not relieve the operator of	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger oCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name: Alex E	Bolanos	Title: Reg & Production Analyst
Signature:	Bolanos & Bolanos	Date: 8/4/2023
email: alex@faen	ergyus.com	Telephone: 8326893788
OCD Only		
Received by: Shelly W	Tells Tells	Date: 8/4/2023

	Page 3 of 17	
cident ID	NAPP2321448004	

Incident ID	NAPP2321448004
District RP	
Facility ID	
Application ID	

# Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.			
What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&gt;100</u> (ft bgs)		
Did this release impact groundwater or surface water?	☐ 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 man showing impacted area surface features subsurface features delineation points and monitoring well	le le		

Ch	aracterization Report Checklist: Each of the following items must be included in the report.
	- Lieu of the form
X	Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
$  \overline{\nabla}$	Field data
	Data table of soil contaminant concentration data
$\boxtimes$	Depth to water determination
$\boxtimes$	Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
$\boxtimes$	Boring or excavation logs
$\boxtimes$	Photographs including date and GIS information
$\boxtimes$	Topographic/Aerial maps
$\boxtimes$	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.

Received by OCD: 9/21/2023 8:14:39 AM Form C-141 State of New Mexico Oil Conservation Division Page 4

	Page	4	of	1	75
NAPP23214	48004				

Incident ID	NAPP2321448004
District RP	
Facility ID	
Application ID	

public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a tl	otifications and perform corrective actions for releases which may endanger e OCD does not relieve the operator of liability should their operations have
Printed Name: Alex Bolanos	Title: Regulatory and Production Analyst
Signature: Alex Bolanos	Date: 12/06/2023
email: alex@faenergyus.com	Telephone: (832)689-3788
OCD Only	
Received by:	Date:

2: 9/21/2023 8:14:39 AM Page 5 of 175
State of New Mexico

Incident ID	NAPP2321448004
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	e included in the plan.						
<ul> <li>□ Detailed description of proposed remediation technique</li> <li>□ Scaled sitemap with GPS coordinates showing delineation poir</li> <li>□ Estimated volume of material to be remediated</li> <li>□ Closure criteria is to Table 1 specifications subject to 19.15.29.</li> <li>□ Proposed schedule for remediation (note if remediation plan tires)</li> </ul>	12(C)(4) NMAC						
<u>Deferral Requests Only</u> : Each of the following items must be co	nfirmed as part of any request for deferral of remediation.						
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.							
■ Extents of contamination must be fully delineated.							
★ Contamination does not cause an imminent risk to human healt	h, the environment, or groundwater.						
	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of						
Printed Name: Alex Bolanos	Title: Regulatory and Production Analyst						
Signature: Alsy Bolanos	Date: 12/06/2023						
email: alex@faenergyus.com	Telephone: (832)689-3788						
OCD Only							
Received by:	Date:						
☐ Approved ☐ Approved with Attached Conditions of	Approval Denied Deferral Approved						
Signature: Nelson Velez	Date: 12/22/2023						



# **DEFERRAL REQUEST REPORT**

West Eumont Unit Federal D Battery
Lea County, New Mexico
Incident Number NAPP2321448004

Prepared for: Forty Acres Energy, LLC 11757 Katy Freeway, Suite 725

Houston, TX 77079

Carlsbad • Midland • San Antonio • Lubbock • Hobbs • Lafayette



#### **SYNOPSIS**

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Forty Acres Energy, LLC (FAE), presents the following Deferral Request Report (DRR) detailing site assessment and soil sampling activities performed for an inadvertent release of crude oil at the West Eumont Unit Federal D Battery (Site). Based on field observations, information provided by FAE, and review of the laboratory analytical results from soil sampling activities at the Site, FAE requests to defer residual soil impacts beneath and immediately adjacent to active production equipment until decommissioning or major facility deconstruction of the Site, whichever comes first.

## SITE LOCATION AND RELEASE BACKGROUND

The Site is located in Unit E, Section 26, Township 20 South, Range 36 East, in Lea County, New Mexico (32.54431°, -103.33069°) and is associated with oil and gas exploration and production operations on Private Land (**Figure 1** in **Appendix A**).

Based on information provided by FAE, on August 2, 2022, a circulation pump sump failure and release of an estimated 5 barrels (bbls) of crude oil within the secondary containment earthen berm was discovered. Initial response efforts included excavation and removal of observed soil impacts to the maximum extent practicable (MEP), totaling 14 cubic yards (CYs). The New Mexico Oil Conservation Division (NMOCD) did not receive A Release Notification and Corrective Action Form C-141 (Form C-141) within 15 days of the release. As a result, FAE submitted a Form C-141 with release incident details, which was received by the NMOCD on August 4, 2023, and was subsequently assigned Incident Number NAPP2321448004. FAE provided photos and a map of the release area identifying the Area of Concern (AOC), which is presented on **Figure 2** in **Appendix A**.

#### SITE CHARACTERIZATION AND CLOSURE CRITERIA

Etech characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to groundwater and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on New Mexico Office of the State Engineer (NMOSE) permitted soil boring L-15554-POD1 that was recently drilled by Coffey Drilling, located approximately ½ mile south of the Site on the West Eumont Unit Federal D Battery well pad. The soil boring location may be referenced on **Figure 1** in **Appendix A**. Using a truck mounted air rotary drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 105 feet bgs. No fluids were observed throughout the drilling process nor after a 72-hour observation period. Following the observation period, the boring was plugged and abandoned



according to the appropriate regulations. Referenced well records for the soil boring are provided in **Appendix B**.

The soil boring location and regional groundwater well locations are shown in Figure 1A in Appendix A.

All other potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details and sources used for the Site characterization are included in **Figure 1B** and **Figure 1C** in **Appendix A**.

Based on the results from the desktop review and estimated regional depth to groundwater at the Site, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria <sup>†</sup>
Chloride	Environmental Protection Agency (EPA) 300.0	20,000 milligram per kilogram (mg/kg)
TPH (Total Petroleum Hydrocarbon)	EPA 8015 M/D	2,500 mg/kg
TPH-Gasoline Range Organics (GRO) + TPH-Diesel Range Organics (DRO)	EPA 8015 M/D	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

<sup>&</sup>lt;sup>†</sup>The reclamation standard concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

## SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

From July 31, 2023, to August 7, 2023, Etech conducted a site assessment via delineation soil sampling activities to confirm details of the release provided on the Form C-141 and to characterize the AOC by verifying the presence or absence of impacted soil. Ten delineation potholes (PH01 through PH10) were advanced via mechanical equipment to assess the lateral and vertical extents of the AOC. Delineation activities were driven by field screening soil for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A minimum of two samples were collected from each delineation soil sample location, representing the highest observed field screening concentrations and the greatest depth. Field screening results and soil descriptions are included on soil sampling logs shown in **Appendix C**. The locations of the delineation soil samples are shown in **Figure 2** in **Appendix A**..

Concurrently with delineation soil sampling activities, Etech collected two 5-point composite soil samples from the existing excavation advanced during initial response efforts at a sampling frequency of 200 square feet from the excavation floor and sidewalls. The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon, resealable plastic bag. The locations of the excavation soil samples are shown in **Figure 3** in **Appendix A**. Photographic documentation of soil sampling activities is included in **Appendix D**.

The delineation and excavation confirmation soil samples were placed directly into lab provided pre-cleaned jars, packed with minimal void space, labeled, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures, to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of COCs.

#### LABORATORY ANALYTICAL RESULTS

Laboratory analytical results indicated that concentrations of COCs for all delineation soil samples were below the applicable Site Closure Criteria, except PH04 at 0.5 feet bgs as indicated by elevated TPH-GRO/TPH-DRO and TPH. Laboratory analytical results are summarized in **Table 1** in



Attachment E, and the complete laboratory reports with chain-of-custody documentation are included in Attachment F.

#### **DEFERRAL REQUEST**

Based on the data collected from the final delineation soil samples, FAE requests to defer the remaining residual impacts within the secondary containment earthen berm, considering the following:

- Depth to groundwater is estimated to be greater than 100 feet bgs based on NMOSE permitted soil boring L-15554-POD1, and no other sensitive receptors are within the applicable buffer ranges.
- Laboratory analyses for all delineation soil samples yielded COC concentrations below the applicable Site Closure Criteria, except PH04 at 0.5 feet bgs as indicated by elevated TPH-GRO/TPH-DRO and TPH. As such, residual impacts exceeding the applicable Site Closure Criteria appear to be contained within the top 4 feet of the AOC in the vicinity of the PH04 sampling location.
- Impacts have been excavated to the MEP and removed from the Site to limit future vertical migration and human exposure upon future Site visits. The remaining residual impacts associated with the inadvertent release reside beneath and immediately adjacent to an above ground storage tank and above ground utilities. Safety restrictions prevented the ability to remove impacted soil in the vicinity of PH04, because further removal of impacted soil would compromise the structural integrity of active production equipment and endanger on-site personnel. The approximate area of the proposed deferral area is presented on Figure 4 in Appendix A.
- Based on the laboratory analytical data and corrective actions detailed in this DRR, residual impacts associated with the inadvertent release have been excavated to the MEP and sufficiently delineated in accordance to the applicable Site Closure Criteria for definition of vertical and horizontal peripheries. FAE believes the completed remedial actions have mitigated impacts at the Site and fulfilled requirements set forth in NMAC 19.15.29.13 regulations in order to be protective of human health, the environment and groundwater. As such, FAE requests consideration for the deferral of approximately 52 CYs of impacted soil associated with Incident Number NAPP2321448004 until decommissioning or major facility deconstruction of the Site, whichever comes first.

#### **LIMITATIONS**

Etech has prepared this DRR to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (281) 702-2329 or <a href="mailto:joseph@etechenv.com">joseph@etechenv.com</a> or Erick Herrera at (281) 777-4152 or <a href="mailto:erick@etechenv.com">erick@etechenv.com</a>. **Appendix G** provides correspondence email notification receipts associated with the subject release.



Sincerely,

eTECH Environmental and Safety Solutions, Inc.

Erick Herrera Staff Geologist

Ericl &

Joseph S. Hernandez Senior Managing Geologist

CC:

David Schellstede, Forty Acres Energy New Mexico Oil Conservation Division

#### Appendices:

Appendix A Figure 1: Site Map

Figure 1A: Site Characterization Map - Groundwater

Figure 1B: Site Characterization Map – Surficial Receptors

Figure 1C: Site Characterization Map – Karst Potential

Figure 2: Delineation Soil Sample Locations

Figure 3: Excavation Soil Sample Locations

Figure 4: Deferral Area

Appendix B Referenced Well Record

Appendix C Soil Sampling Logs

Appendix D Photographic Log

Appendix E Tables

**Appendix F** Laboratory Analytical Reports & Chain-of-Custody Documentation

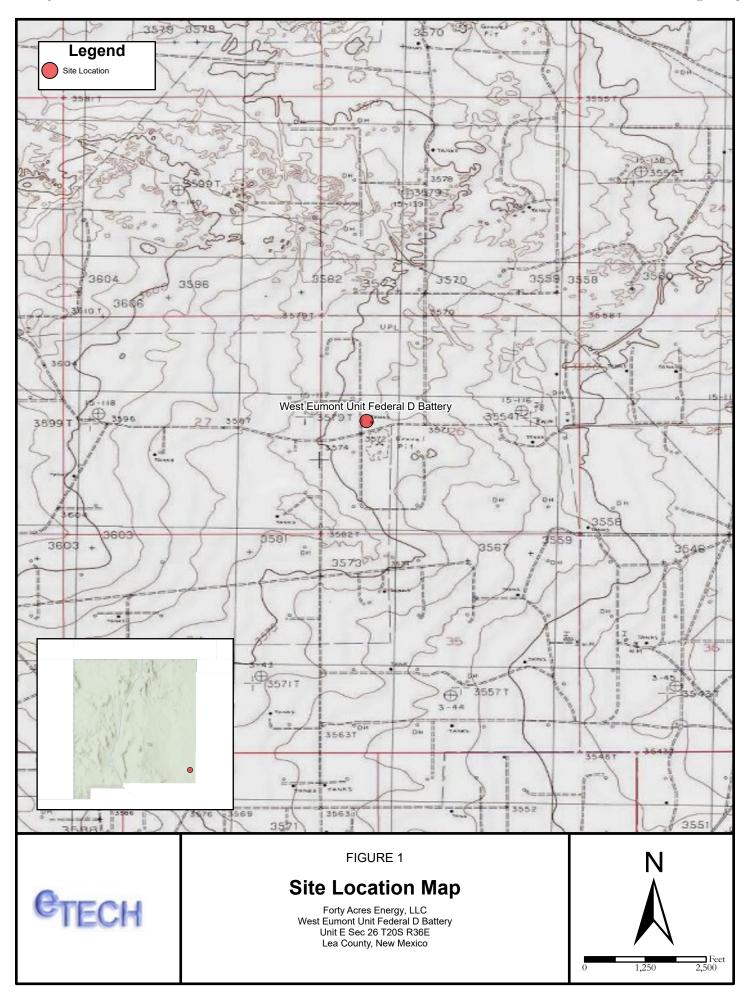
Appendix G NMOCD Notifications

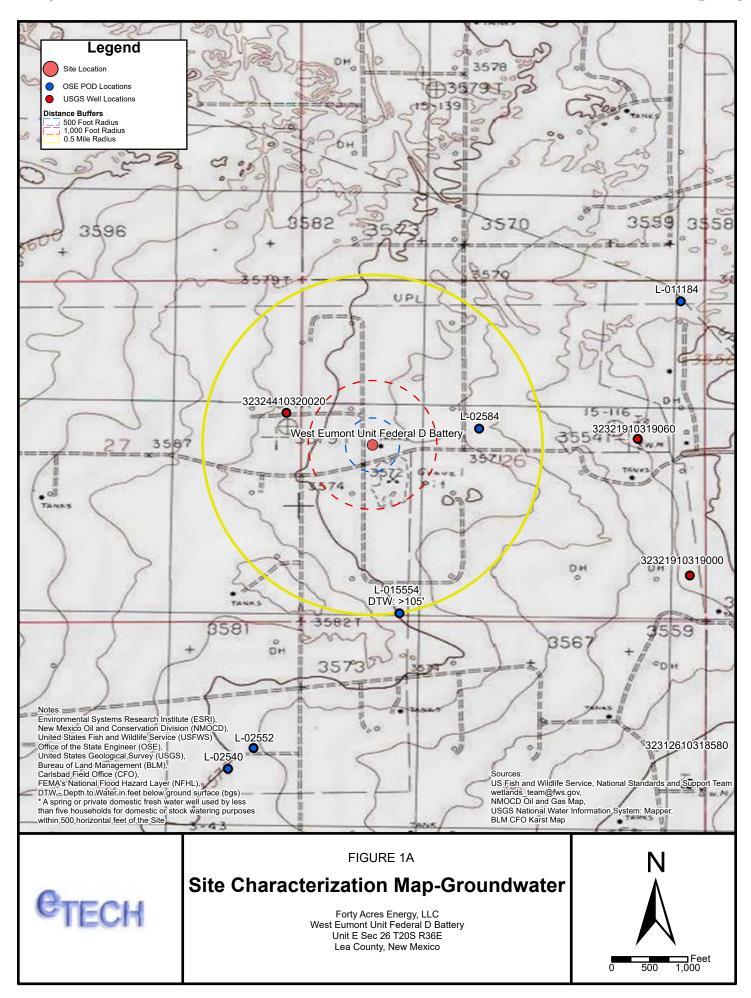
# **APPENDIX A**

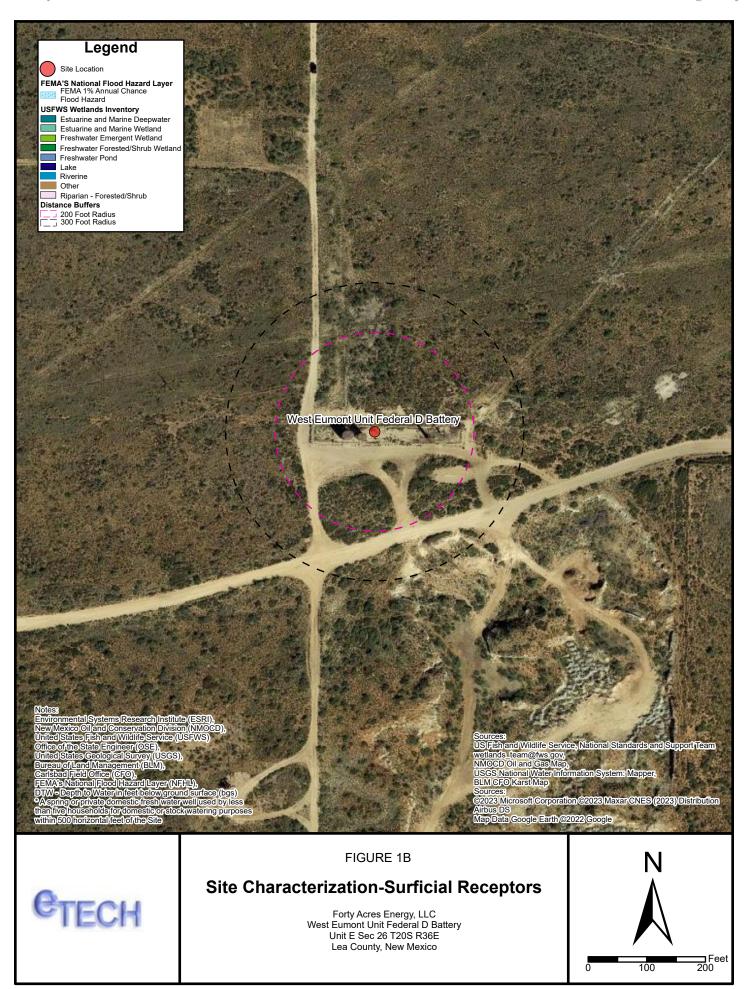
**Figures** 

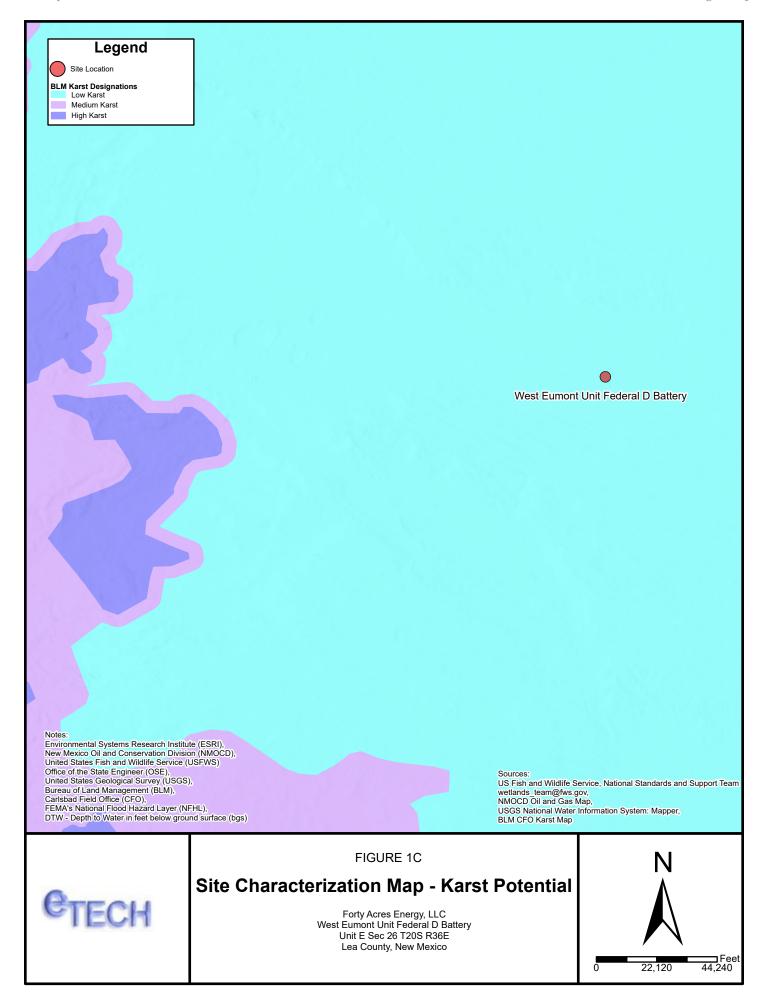
P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213

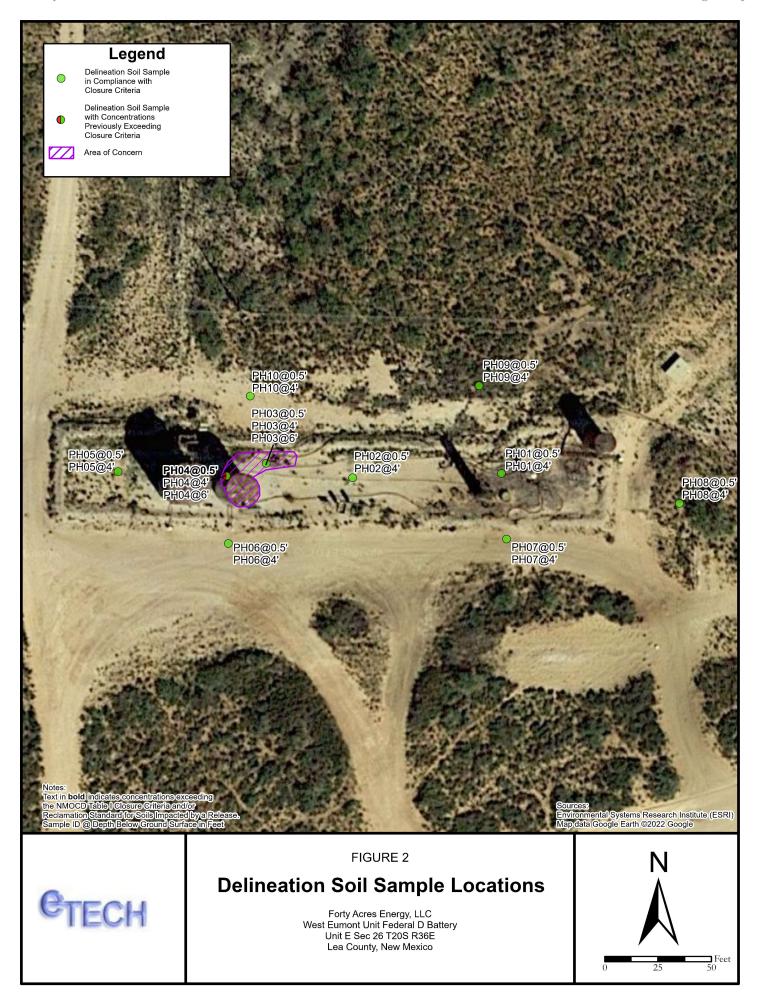


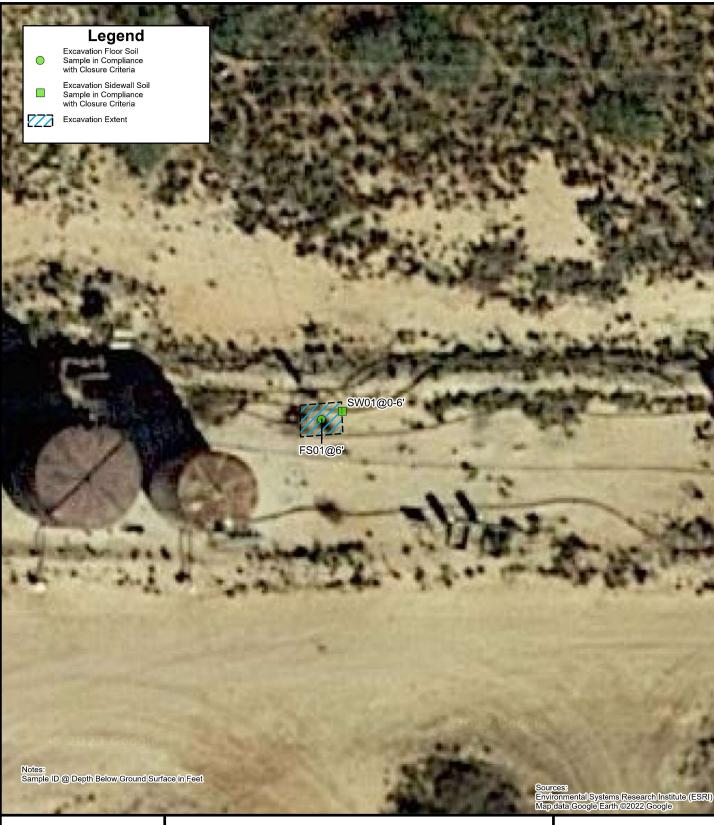










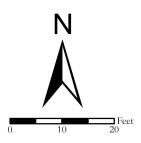


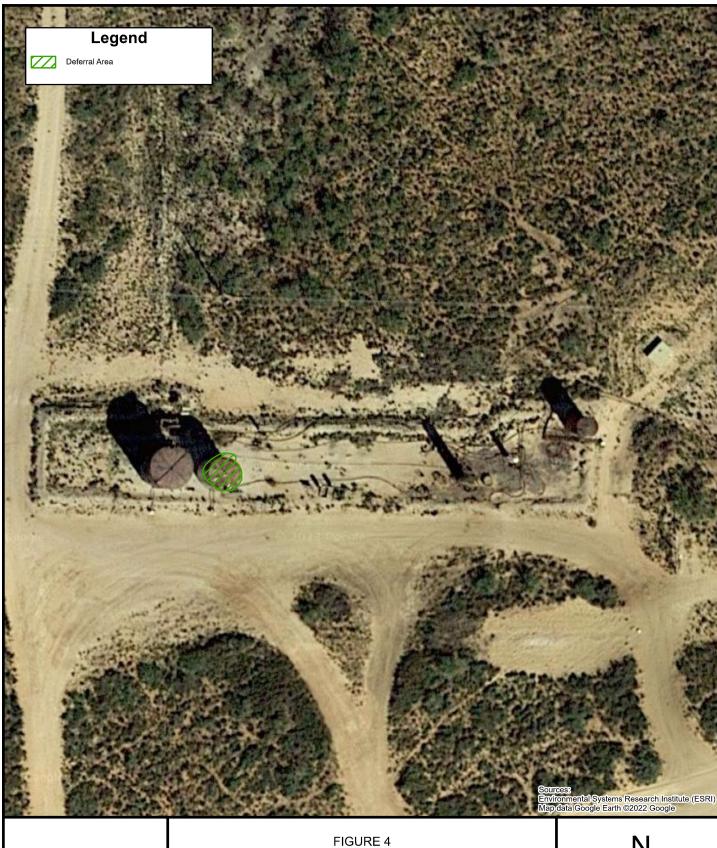


## FIGURE 3

# **Excavation Soil Sample Locations**

Forty Acres Energy, LLC West Eumont Unit Federal D Battery Unit E Sec 26 T20S R36E Lea County, New Mexico

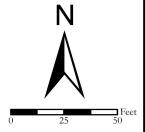




етесн

# **Deferral Area**

Forty Acres Energy, LLC West Eumont Unit Federal D Battery Unit E Sec 26 T20S R36E Lea County, New Mexico



# **APPENDIX B**

Referenced Well Record

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213





# WELL RECORD & LOG

# OFFICE OF THE STATE ENGINEER

## www.ose.state.nm.us

Z	OSE POD NO. ( Pod-1	WELL NO.	)			OSE FILE NO(S). L-15554							
CATIC	WELL OWNER Forty Acres							PHONE (OPTION 1946-254-954					
GENERAL AND WELL LOCATION	WELL OWNER	MAILING				CITY STATE ZIP Houston TX 77079							
<u> </u>						110 450011							
ANI	WELL			GREES 32	DS 6	* ACCURACY REQUIRED: ONE TENTH OF A SECOND							
ERAL	LOCATION (FROM GPS)	,	TITUDE NGITUDE	-103	9 W		QUIRED: WGS 84						
1. GEN	DESCRIPTION	N RELATIN	IG WELL LOCATION TO	STREET ADDR	ESS AND COMMO	N LANDMA	ARKS – PLS	S (SECTION, TO	WNSHJIP, RANGE) WH	IERE AVAILABLE			
	LICENSE NO. NAME OF LICENSED DRILLER NAME OF WELL DRILLING COMPANY												
	1839	)			Boyd Coffey				(	Coffey Drilling			
	DRILLING STA 8-25-20		DRILLING ENDED 8-25-2023	DEPTH OF CO	MPLETED WELL (F 105	TT)		LE DEPTH (FT) 105	DEPTH WATER FIRS	ST ENCOUNTERED (FT NA	)		
Z	COMPLETED	WELL IS:	ARTESIAN	✓ DRY HOL	E SHALLO	DW (UNCO	NFINED)		STATIC WATER LEV	VEL IN COMPLETED WI NA	ELL (FT)		
TIO	DRILLING FLU	ЛD:	✓ AIR	MUD MUD	ADDITIV	VES – SPEC	IFY:						
ORMA	DRILLING ME	THOD:	✓ ROTARY	☐ HAMMER	CABLE	TOOL	□ ОТНЕ	R – SPECIFY:					
2. DRILLING & CASING INFORMATION	DEPTH (f	reet bgl)	BORE HOLE DIAM	CASING	CASING MATERIAL AND/OR GRADE CON				CASING INSIDE DIAM.	CASING WALL THICKNESS	SLOT SIZE		
ASIN			(inches)	(include each casing string, and note sections of screen) (add co				YPE ling diameter)	(inches)	(inches)	(inches)		
3	0	100	6.5		2 3/8			readed	2	SCh 40			
ING	100	105	6.5		2 3/8		Th	readed	2	SCH 40	0.035		
RIE													
2. D													
3	DEPTH (f	eet bgl)	BORE HOLE		ST ANNULAR S				AMOUNT	METHO			
RIAI	FROM	TO	DIAM. (inches)	GRA	VEL PACK SIZE			RVAL	(cubic feet)	PLACE			
\TE	20	105	6.5			e Quick gr	out		3.5	Tren			
ANNULAR MATERIAL	20	103	0.3		INA	uve iiii			22	Pot	ır		
NNOL													
3. A													
EOD	OSE INTERN	IAI LICE						W/D 2/	) WELL RECORD (	8- LOC (Vancion 04/2	10/10)		

POD NO.

TRN NO.

WELL TAG ID NO.

PAGE 1 OF 2

FILE NO.

LOCATION



# PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. G	ENERAL / WELL OWNERSHIP:						
State	e Engineer Well Number: L-15554 POD-1						
	l owner: Forty Acres Energy			Phone	No.: 346	-254-9544	
Maili	ing address: 11757 Katy Freeway						
City:	. Houston Sta	ite:	Т	exas		_ Zip code: 77079	
II. V	WELL PLUGGING INFORMATION:						
1)	Name of well drilling company that plugged well	: Coffey	Drilling				
2)	New Mexico Well Driller License No.: 1839				Expira	ation Date:	
3)	Well plugging activities were supervised by the factorial Boyd Coffye	ollowing	well driller	(s)/rig su	pervisor(s	):	
4)	Date well plugging began: 8-28-2023	Г	ate well pl	ugging co	ncluded:	8-28-2023	
5)	GPS Well Location: Latitude: 32 Longitude: -103	405,		min, _ min, _		_ sec _ sec, WGS 84	
6)	Depth of well confirmed at initiation of plugging by the following manner: Back fill with Native so	as:1	05 ft be	elow grou	nd level (	bgl),	
7)	Static water level measured at initiation of pluggi	ng:!	NZ ft b	gl			
8)	Date well plugging plan of operations was appro-	ved by the	e State Eng	ineer:	8-4-2023	_	
9)	Were all plugging activities consistent with an ap differences between the approved plugging plan					_ If not, please descr dditional pages as needed	

Version: September 8, 2009

Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

## For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement  Method (tremie pipe, other)	Comments  ("casing perforated first", "open annular space also plugged", etc.)
	0-20 BLS 3/8 bentonite hole plug	10 SKS Bentonite hole plug, 50 gallons frsh water	35 gallons	Pour	Open Annualr space plugged
-8					
	20-105 Native cuttings			Pour	
8					
- 22					
		MULTIPLY E cubic feet x 7.4 cubic yards x 201.9	3Y AND OBTAIN 1805 = gallons 17 = gallons		

### **III. SIGNATURE:**

1,	, say that I am lamiliar with the rules of the	of the State
Engineer pertaining to the plugging of well	Is and that each and all of the statements in this Plugging Re	ecord and attachments
are true to the best of my knowledge and be	elief.	
	Signature of Well Driller	Date

Version: September 8, 2009

Page 2 of 2

# **APPENDIX C**

Soil Sampling Logs

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213



# Sample Name: PH01 Date: 08/07/2023 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Site Coordinates: 32.54431, -103.33069 Hole Diameter: N/A Date: 08/07/2023 Method: Battery Incident Number: 18342 Logged By: EK Method: Backhoe Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						0		(0-4') SAND, dry, brown, poorly graded, very
Dry	<112	2.2	No	PH01	0.5	-		fine to fine grained, some silt, no staining, no odor.
Dry	<112	0.0	No		1	1		
Dry	<112	0.0	No		2 _	2		
Dry	<112	0.0	No	PH01	3 _	3		

#### Sample Name: PH02 Date: 08/07/2023 **ECH** Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Method: Backhoe Logged By: EK Site Coordinates: 32.54431, -103.33069 Hole Diameter: N/A Total Depth: 4' Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test

performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						0	SP-SM	(0-4') SAND, dry, brown, poorly graded, very
Dry	136	0	No	PH02	0.5	+		fine to fine grained, some silt, no staining, no odor.
Dry	<112	0.0	No		1	1		
Dry	<112	0.0	No		2 _	2		
Dry	<112	0.0	No	PH02	4 _	4		

#### Date: 08/07/2023 Sample Name: PH03 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Method: Backhoe Logged By: EK Site Coordinates: 32.54431, -103.33069 Total Depth: 6' Hole Diameter: N/A Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. **USCS/Rock** Sample ID (feet bgs) Moisture Content Chloride Sample Depth (feet bgs) Staining Symbol Depth (bpm) (mdd) **Lithologic Descriptions/Notes** SP-SM (0-1') SAND, dry, brown, poorly graded, very 0 528 2.2 Yes PH03 0.5 fine to fine grained, some silt, some staining, no odor. Dry SP-SM (1-6') Sand, dry, brown, poorly graded, very Dry 356 0.0 Yes 1 1 fine to fine grained, some silt, some staining, no odor. 573 0.0 2 2 Dry Yes 3 3 Yes PH03 Dry 628 0.0 4 5 5 Dry 356 0.0 No No PH03 Dry 136 0.0 6 6 **Total Depth**

#### Date: 08/07/2023 Sample Name: PH04 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Method: Backhoe Logged By: EK Site Coordinates: 32.54431, -103.33069 Total Depth: 6' Hole Diameter: N/A Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included. **USCS/Rock** Sample ID feet bgs) Moisture Chloride Sample Depth (feet bgs) Staining Content Symbol Depth (bpm) (mdd) **Lithologic Descriptions/Notes** 0 CCHE (0-1') Pad surface CALICHE, dry, some staining, no odor. 628 0.0 No PH04 0.5 Dry SP-SM (1-6') SAND, dry, brown, poorly graded, very Dry 860 0.0 Yes 1 1 fine to fine grained, some silt, some staining, no odor. 860 0.0 2 2 Dry Yes 3 3 Yes PH04 Dry 396 0.0 4 5 5 Dry 576 0.0 Yes No PH04 Dry 284 0.0 6 6 **Total Depth**

# Sample Name: PH05 Date: 08/07/2023 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Site Coordinates: 32.54431, -103.33069 Logged By: EK Method: Backhoe Hole Diameter: N/A Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Roc Symbol	Lithologic Descriptions/Notes
Dry	<112	0.0	No	PH05	0.5	0	1	(0-4') SAND, dry, reddish brown, poorly graded, very fine to fine grained, some silt, no staining, no odor.
	1112	0.0	1	1100	-	<u> </u>		line to fine grained, some sitt, no staining, no odor.
Dry	<112	0.0	No		1 _	1		
Dry	<112	0.0	No		2 _	2		
					3 _	3		
Dry	<112	0.0	No	PH05	4 _	4		

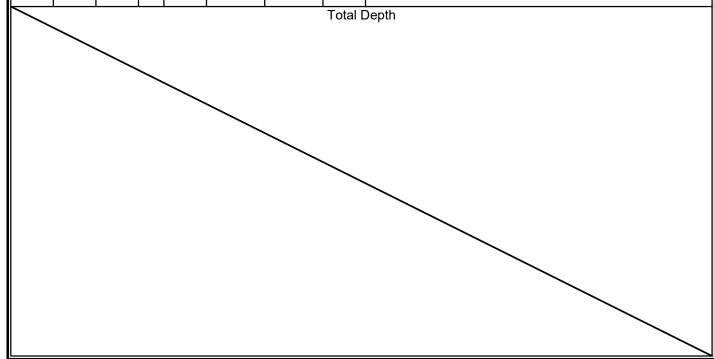
# Sample Name: PH06 Date: 08/07/2023 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Site Coordinates: 32.54431, -103.33069 Logged By: EK Method: Backhoe Hole Diameter: N/A Total Depth: 4'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Roc Symbol	Lithologic Descriptions/Notes
Dry	136	0.0	No	PH06	0.5	0	CCHE	(0-1) CALICHE, dry, no staining, no odor.
Dry	<112	0.0	No		1 _	1		(1-4') SAND, dry, brown, poorly graded, very fine to fine grained, some silt, no staining, no odor.
Dry	<112	0.0	No		2 _	2		
					3 _	3		
Dry	<112	0.0	No	PH06	4 _	4		

# Sample Name: PH07 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Site Coordinates: 32.54431, -103.33069 Hole Diameter: N/A Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample II	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Roc Symbol	Lithologic Descriptions/Notes
Dry	<112	0.0	No	PH07	0.5	0	CCHE	(0-1) CALICHE, dry, no staining, no odor.
Dry	<112	0.0	No		1 _	1		(1-4') SAND, dry, brown, poorly graded, very fine to fine grained, some silt, no staining, no odor.
Dry	<112	0.0	No		2 _	2		
					3 _	3		
Dry	<112	0.0	No	PH07	4 _	4		



#### Sample Name: PH08 Date: 08/07/2023 ECH Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Method: Backhoe Logged By: EK Site Coordinates: 32.54431, -103.33069 Hole Diameter: N/A Total Depth: 4' Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test

performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						0	SP-SM	(0-4') SAND, dry, brown, poorly graded, very
Dry	<112	0.0	No	PH08	0.5	+		fine to fine grained, some silt, no staining, no odor.
Dry	<112	0.0	No		1 1	1 1		
Dry	<112	0.0	No		2	2 3		
Dry	<112	0.0	No	PH08	4	4		

#### Sample Name: PH09 Date: 08/07/2023 **ECH** Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Method: Backhoe Logged By: EK Site Coordinates: 32.54431, -103.33069 Hole Diameter: N/A Total Depth: 4' Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test

performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth	(sba jeer)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
							0		(0-4') SAND, dry, brown, poorly graded, very
Dry	<112	0.0	No	PH09	0.5	+			fine to fine grained, some silt, no staining, no odor.
Dry	<112	0.0	No		1		1		
Dry	<112	0.0	No		2	+ + +	2		
Dry	<112	0.0	No	PH09	4	1	4		

# Sample Name: PH10 Date: 08/07/2023 Site Name: West Eumont Unit Federal D Battery Incident Number: NAPP2321448004 Job Number: 18342 LITHOLOGIC / SOIL SAMPLING LOG Site Coordinates: 32.54431, -103.33069 Hole Diameter: N/A Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (feet bgs)	Depth (feet bgs)	USCS/Rock Symbol	Lithologic Descriptions/Notes
						0	SP-SM	(0-4') SAND, dry, brown, poorly graded, very
Dry	136	0.0	No	PH10	0.5	_		fine to fine grained, some silt, no staining, no odor.
Dry	284	0.0	No		1 _	_ 1		
Dry	<112	0.0	No		2 -	- <sup>2</sup>		
					3 _	_ 3 -		
Dry	<112	0.0	No	PH10	4 _	_ 4		

# APPENDIX D

Photographic Log

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213



# **e**TECH

## **PHOTOGRAPHIC LOG**

Forty Acres Energy, LLC West Eumont Unit Federal D Battery NAPP2321448004



Photograph 1 Date: 08/07/2023 Description: Southwestern view of delineation activities.



Photograph 3 Date: 08/07/2023 Description: Souteastern view of delineation activities.



Photograph 2 Date: 08/07/2023

Description: Southwestern view of delineation activities.



Photograph 4 Date: 08/07/2023 Description: Northwestern view of delineation activities.

# **APPENDIX E**

**Tables** 

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213





# Table 1 SOIL SAMPLE ANALYTICAL RESULTS Forty Acres Energy, LLC West Eumont Unit Federal D Battery Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)		10	50	NE	NE	NE	1,000	2,500	20,000	
				Delineation So	oil Samples - Incident N	lumber NAPP23214480	04			
PH01	08/07/2023	0.5	<0.00199	<0.00398	<49.9	198	<49.9	198	198	226
PH01	08/07/2023	4	<0.00198	<0.00396	<49.8	184	<49.8	184	184	224
PH02	08/07/2023	0.5	<0.00201	<0.00402	<50.0	638	<50.0	638	638	210
PH02	08/07/2023	4	<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	89.6
PH03	08/07/2023	0.5	<0.00199	<0.00398	<50.4	699	<50.4	699	699	754
PH03	08/07/2023	4	<0.00200	<0.00399	<50.1	183	<50.1	183	183	280
PH03	08/07/2023	6	<0.00198	<0.00198	<50.5	<50.5	<50.5	<50.5	<50.5	195
PH04	08/07/2023	0.5	<0.00198	<0.00396	<252	4,430	<252	4,430	4,430	1,910
PH04	08/07/2023	4	<0.00202	<0.00403	<50.2	240	<50.2	240	240	306
PH04	08/07/2023	6	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	284
PH05	08/07/2023	0.5	<0.00202	<0.00404	<50.0	71.0	<50.0	71.0	71.0	135
PH05	08/07/2023	4	<0.00200	<0.00401	<50.0	63.4	<50.0	63.4	63.4	185
PH06	08/07/2023	0.5	<0.00199	<0.00398	<49.6	51.3	<49.6	51.3	51.3	219
PH06	08/07/2023	4	<0.00200	<0.00400	<49.9	80.0	<49.9	80.0	80.0	189
PH07	08/07/2023	0.5	<0.00200	<0.00399	<49.5	55.1	<49.9	55.1	55.1	133
PH07	08/07/2023	4	<0.00202	<0.00404	<50.1	<50.1	<50.1	<50.1	<50.1	250
PH08	08/07/2023	0.5	<0.00202	<0.00403	<50.2	51.2	<50.2	51.2	51.2	128
PH08	08/07/2023	4	<0.00199	<0.00398	<50.4	51.6	<50.4	<50.4	<50.4	155
PH09	08/07/2023	0.5	<0.00199	<0.00398	<49.8	53.8	<49.8	53.8	53.8	98.0
PH09	08/07/2023	4	<0.00201	<0.00402	<50.2	62.3	<50.2	62.3	62.3	113
PH10	08/07/2023	0.5	<0.00200	<0.00401	<50.5	56.6	<50.5	56.6	56.6	140
PH10	08/07/2023	4	<0.00200	<0.00399	<49.6	74.8	<49.6	74.8	74.8	104



#### Table 1 SOIL SAMPLE ANALYTICAL RESULTS Forty Acres Energy, LLC **West Eumont Unit Federal D Battery** Lea County, New Mexico

Sample I.D. Sample Sample Depth Date (feet bgs)		Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO+GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)	
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Soil Samples - Incident Number NAPP2321448004										
FS01 08/07/2023 6			<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	224
SW01 08/07/2023 0-6		<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	98.8	

Notes:

bgs: below ground surface mg/kg: milligrams per kilogram

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Text in "grey" represents excavated soil samples

Concentrations in bold exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release

# **APPENDIX F**

Laboratory Analytical Reports & Chain-of-Custody Documentation

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213



**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Erick Herrera Etech Environmental & Safety Solutions PO BOX 62228 Midland, Texas 79711

Midialid, 16xas 1911

Generated 8/21/2023 2:36:12 PM

# **JOB DESCRIPTION**

WEU Federal D Battery SDG NUMBER Lea County NM

# **JOB NUMBER**

890-5063-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



# **Eurofins Carlsbad**

# **Job Notes**

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

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

# **Authorization**

Generated 8/21/2023 2:36:12 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery Laboratory Job ID: 890-5063-1 SDG: Lea County NM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	23
QC Sample Results	25
QC Association Summary	30
Lab Chronicle	35
Certification Summary	42
Method Summary	43
Sample Summary	44
Chain of Custody	45
Receipt Checklists	49

1

2

3

-+

6

8

10

13

14

#### **Definitions/Glossary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1 SDG: Lea County NM

#### **Qualifiers**

**GC VOA** 

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

U Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

MS and/or MSD recovery exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DFR Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1 SDG: Lea County NM

Job ID: 890-5063-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-5063-1

#### Receipt

The samples were received on 8/9/2023 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-60387 and analytical batch 880-60350 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

#### GC Semi VOA

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-60390 and analytical batch 880-60609 was outside the upper control limits.

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: PH01 (890-5063-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: PH03 (890-5063-6) and PH05 (890-5063-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: PH06 (890-5063-11), PH06 (890-5063-12) and PH07 (890-5063-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60609/32), (CCV 880-60609/48), (CCV 880-60609/59), (CCV 880-60609/66) and (LCSD 880-60390/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The continuing calibration verification (CCV) associated with batch 880-60609 recovered above the upper control limit for Gasoline Range Organics (GRO)-C6-C10. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-60609/66).

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

#### HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-59872 and 880-59872 and analytical batch 880-60016 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The associated samples are: PH01 (890-5063-1), PH01 (890-5063-2), PH02 (890-5063-3), PH02 (890-5063-4), PH03 (890-5063-5), PH03 (890-5063-6), PH04 (890-5063-7), PH04 (890-5063-8), PH05 (890-5063-9), PH05 (890-5063-10), (890-5063-A-1-B MS) and (890-5063-A-1-C MSD).

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-59872 and 880-59872 and analytical batch 880-60016 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The associated samples are: PH06 (890-5063-11), PH06 (890-5063-12), PH07 (890-5063-13), PH07 (890-5063-14), PH08 (890-5063-15), PH08 (890-5063-16), PH09 (890-5063-17), PH09 (890-5063-18), PH10 (890-5063-19), PH10 (890-5063-20), (890-5063-A-11-B MS) and (890-5063-A-11-C MSD).

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

#### **Case Narrative**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

Job ID: 890-5063-1 (Continued)

**Laboratory: Eurofins Carlsbad (Continued)** 

Job ID: 890-5063-1

Matrix: Solid

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM **Client Sample ID: PH01** Lab Sample ID: 890-5063-1

Date Collected: 08/07/23 12:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/16/23 23:44	
Toluene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/16/23 23:44	•
Ethylbenzene	< 0.00199	U F1	0.00199		mg/Kg		08/16/23 13:37	08/16/23 23:44	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		08/16/23 13:37	08/16/23 23:44	1
o-Xylene	< 0.00199	U F1	0.00199		mg/Kg		08/16/23 13:37	08/16/23 23:44	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		08/16/23 13:37	08/16/23 23:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				08/16/23 13:37	08/16/23 23:44	1
1,4-Difluorobenzene (Surr)	98		70 - 130				08/16/23 13:37	08/16/23 23:44	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/17/23 09:52	1
- Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (	GC)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	198		49.9		mg/Kg			08/21/23 11:32	1
- Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/16/23 15:08	08/19/23 21:28	1
Diesel Range Organics (Over C10-C28)	198		49.9		mg/Kg		08/16/23 15:08	08/19/23 21:28	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/16/23 15:08	08/19/23 21:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	237	S1+	70 - 130				08/16/23 15:08	08/19/23 21:28	1
o-Terphenyl -	204	S1+	70 - 130				08/16/23 15:08	08/19/23 21:28	1
- Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						

**Client Sample ID: PH01** 

Date Collected: 08/07/23 12:30 Date Received: 08/09/23 08:15

Sample Depth: 4

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 00:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 00:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 00:04	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		08/16/23 13:37	08/17/23 00:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 00:04	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		08/16/23 13:37	08/17/23 00:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				08/16/23 13:37	08/17/23 00:04	1

5.00

mg/Kg

226 F1

**Eurofins Carlsbad** 

08/12/23 01:47

Lab Sample ID: 890-5063-2

**Matrix: Solid** 

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

**Client Sample ID: PH01** 

Lab Sample ID: 890-5063-2

Date Collected: 08/07/23 12:30 Date Received: 08/09/23 08:15 Matrix: Solid

Job ID: 890-5063-1

Sample Depth: 4

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	108	70 - 130	08/16/23 13:37	08/17/23 00:04	1

Method: TAI	SOP Total BTEX	- Total BTFX	Calculation
motilou. IAL	OOI TOTAL DIEN	TOTAL DIEN	Guidalation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00396	U	0.00396	mg/Kg			08/17/23 09:52	1

Method:	SW846 8014	NM - Dies	ol Range	Organics	(DRO)	(GC)

Analyte	Result	Qualifier	RL	MDL U	nit	D	Prepared	Analyzed	Dil Fac	
Total TPH	184		49.8	m	a/Ka			08/21/23 11:32	1	

	Mothod: SW046 904ED NM Diocol Dan	go Organico (DBO) (CC)	v
ı	Method: SW846 8015B NM - Diesel Ran	ge Organics (DRO) (GC)	,

		(,	( /						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/16/23 15:08	08/19/23 21:50	1
Diesel Range Organics (Over C10-C28)	184		49.8		mg/Kg		08/16/23 15:08	08/19/23 21:50	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/16/23 15:08	08/19/23 21:50	1
Surrogato	% Pocovory	Qualifier	Limite				Drongrad	Analyzod	Dil Esc

Surrogate	%Recovery (	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130		08/16/23 15:08	08/19/23 21:50	1
o-Terphenyl	107		70 - 130	(	08/16/23 15:08	08/19/23 21:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	)	Prepared	Analyzed	Dil Fac
Chloride	224		5.01		mg/Kg			08/12/23 02:09	1

**Client Sample ID: PH02** Lab Sample ID: 890-5063-3

Date Collected: 08/07/23 12:40 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Mothodi	CIMOAC GOOAD	Valatile Or	ganic Compour	de (CC)
i wethod:	5W846 8U21B	- volatile Ur	danic Compour	ias (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/16/23 13:37	08/17/23 00:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/16/23 13:37	08/17/23 00:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/16/23 13:37	08/17/23 00:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/16/23 13:37	08/17/23 00:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/16/23 13:37	08/17/23 00:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/16/23 13:37	08/17/23 00:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130				08/16/23 13:37	08/17/23 00:25	1
1,4-Difluorobenzene (Surr)	112		70 - 130				08/16/23 13:37	08/17/23 00:25	1

Method: TAI	SOP Total BTFX	- Total RTFX	Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/17/23 09:52	1

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	638	50.0	mg/Kg			08/21/23 11:32	1

**Eurofins Carlsbad** 

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-5063-3

08/12/23 02:16

Lab Sample ID: 890-5063-4

**Matrix: Solid** 

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

**Client Sample ID: PH02** 

Date Collected: 08/07/23 12:40 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/16/23 15:08	08/19/23 22:12	1
Diesel Range Organics (Over C10-C28)	638		50.0		mg/Kg		08/16/23 15:08	08/19/23 22:12	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/16/23 15:08	08/19/23 22:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				08/16/23 15:08	08/19/23 22:12	1
o-Terphenyl	103		70 - 130				08/16/23 15:08	08/19/23 22:12	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

4.97

mg/Kg

210

**Client Sample ID: PH02** 

Date Collected: 08/07/23 12:50

Date Received: 08/09/23 08:15

Sample Depth: 4

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 00:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 00:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 00:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/16/23 13:37	08/17/23 00:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 00:45	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/16/23 13:37	08/17/23 00:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				08/16/23 13:37	08/17/23 00:45	1
1,4-Difluorobenzene (Surr)	107		70 - 130				08/16/23 13:37	08/17/23 00:45	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/17/23 09:52	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (	GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			08/21/23 11:32	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		08/16/23 15:08	08/19/23 20:23	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		08/16/23 15:08	08/19/23 20:23	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		08/16/23 15:08	08/19/23 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				08/16/23 15:08	08/19/23 20:23	1
	101		70 <sub>-</sub> 130				08/16/23 15:08	08/19/23 20:23	

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

Lab Sample ID: 890-5063-4

**Client Sample ID: PH02** 

Date Collected: 08/07/23 12:50

Date Received: 08/09/23 08:15

Matrix: Solid

Sample Depth: 4

Method: EPA 300.0 - Anions, Ion C	hromatography - Solubl	le					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86.9	5.02	mg/Kg			08/12/23 02:23	1

**Client Sample ID: PH03** Lab Sample ID: 890-5063-5 Matrix: Solid

Date Collected: 08/07/23 13:00

Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 01:06	1
Toluene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 01:06	
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 01:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 01:06	1
o-Xylene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 01:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				08/16/23 13:37	08/17/23 01:06	1
1,4-Difluorobenzene (Surr)	105		70 - 130				08/16/23 13:37	08/17/23 01:06	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/17/23 09:52	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (	GC)						
Method: SW846 8015 NM - Diese Analyte	el Range Organ Result		GC)	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result 699	ics (DRO) (( Qualifier	GC) RL 50.4	MDL		<u>D</u>	Prepared	<b>Analyzed</b> 08/21/23 11:32	
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result 699 sel Range Orga	ics (DRO) (  Qualifier  nics (DRO)	RL 50.4 (GC)		Unit mg/Kg			08/21/23 11:32	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte	el Range Organ Result 699 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	(GC) RL (GC) RL		Unit mg/Kg	<u>D</u>	Prepared	08/21/23 11:32  Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result 699 sel Range Orga	Qualifier  nics (DRO) Qualifier	RL 50.4 (GC)		Unit mg/Kg			08/21/23 11:32	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over	el Range Organ Result 699 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	(GC) RL (GC) RL		Unit mg/Kg		Prepared	08/21/23 11:32  Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	el Range Organ Result 699 sel Range Orga Result <50.4	ics (DRO) (Oualifier  nics (DRO) Qualifier U	(GC)  RL  50.4  (GC)  RL  50.4		Unit mg/Kg  Unit mg/Kg		Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed  08/19/23 22:34	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over C10-C28)	el Range Organ Result 699 sel Range Orga Result <50.4	ics (DRO) (Oualifier  nics (DRO) Qualifier U	GC)  RL  50.4  (GC)  RL  50.4  50.4		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08	08/21/23 11:32  Analyzed  08/19/23 22:34  08/19/23 22:34	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Organ Result 699 sel Range Orga Result <50.4	ics (DRO) (Oualifier  nics (DRO) Qualifier U	GC)  RL  50.4  (GC)  RL  50.4  50.4		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08	08/21/23 11:32  Analyzed 08/19/23 22:34 08/19/23 22:34 08/19/23 22:34	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	sel Range Organ Result 699 sel Range Orga Result <50.4 %Recovery	ics (DRO) (Oualifier  nics (DRO) Qualifier U	GC) RL 50.4  (GC) RL 50.4  50.4  50.4  Limits		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared	08/21/23 11:32  Analyzed  08/19/23 22:34  08/19/23 22:34  08/19/23 22:34  Analyzed	
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	sel Range Organ Result 699 sel Range Orga Result <50.4 699 <50.4 %Recovery 120 102	ics (DRO) ((Qualifier UNICS (DRO)) Qualifier UNICS (DRO)	GC)  RL 50.4  (GC)  RL 50.4  50.4  50.4  Limits 70 - 130 70 - 130		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed 08/19/23 22:34  08/19/23 22:34  08/19/23 22:34  Analyzed 08/19/23 22:34	Dil Fac

**Eurofins Carlsbad** 

08/12/23 02:30

5.00

mg/Kg

754

Chloride

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

Client Sample ID: PH03
Date Collected: 08/07/23 13:10
Date Received: 08/09/23 08:15

Lab Sample ID: 890-5063-6 Matrix: Solid

Job ID: 890-5063-1

Sample Depth: 4

						ţ
MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	ma/Ka		08/16/23 13:37	08/17/23 01:26		

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 01:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/16/23 13:37	08/17/23 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 01:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/16/23 13:37	08/17/23 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				08/16/23 13:37	08/17/23 01:26	1
1,4-Difluorobenzene (Surr)	106		70 - 130				08/16/23 13:37	08/17/23 01:26	1

Method: TAL SOP Total BTEX - Total	al BTEX Calo	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			08/17/23 09:52	1

Method: SW846 8015 NM - Diesel Ra	nge Organi	cs (DRO) (GC	)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	183		50.1		mg/Kg			08/21/23 11:32	1

Analyte	Result	Qualifier	RL	MDL Unit	t C	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/	Kg	08/16/23 15:08	08/19/23 22:56	1
Diesel Range Organics (Over C10-C28)	183		50.1	mg/	Kg	08/16/23 15:08	08/19/23 22:56	1
Oll Range Organics (Over C28-C36)	<50.1	U	50.1	mg/	Kg	08/16/23 15:08	08/19/23 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	237	S1+	70 - 130	08/16/23 15:08	08/19/23 22:56	1
o-Terphenyl	200	S1+	70 - 130	08/16/23 15:08	08/19/23 22:56	1
<del>-</del>						

Method: EPA 300.0 - Anions, Ion C	nromatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280	4.96	mg/Kg			08/12/23 02:52	1

Client Sample ID: PH04 Lab Sample ID: 890-5063-7

Date Collected: 08/07/23 13:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 01:47	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 01:47	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 01:47	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		08/16/23 13:37	08/17/23 01:47	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/16/23 13:37	08/17/23 01:47	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		08/16/23 13:37	08/17/23 01:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				08/16/23 13:37	08/17/23 01:47	1

**Eurofins Carlsbad** 

3

^

<u>'</u>

10

12

13

Matrix: Solid

Job ID: 890-5063-1

Matrix: Solid

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery SDG: Lea County NM

**Client Sample ID: PH04** Lab Sample ID: 890-5063-7

Date Collected: 08/07/23 13:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

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

Surrogate	%Recovery Qualifie	er Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	114	70 - 130	08/16/23 13:37	08/17/23 01:47	1

Method: TAI	SOP Total BTI	FY - Total RTF)	Calculation
Mictilou. IAL	. OOI TOTAL DIE	LX - IOLAI DIL/	Calculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00396	U	0.00396	mg/Kg			08/17/23 09:52	1

1		
Method: SW846 8015 NM -	Discal Dance Occasion	(DDO) (CC)
I WETDOO'S WAAH AU15 NIVI .	. Diesei Ranne Ornanics	(I)R()) ((=(.)

Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Total TPH	4430		252	n	ng/Kg			08/21/23 11:32	1

	Mothod: SW046 904ED NM Diocol Dan	go Organico (DBO) (CC)	v
ı	Method: SW846 8015B NM - Diesel Ran	ge Organics (DRO) (GC)	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<252	U	252		mg/Kg		08/16/23 15:08	08/19/23 23:17	5
Diesel Range Organics (Over	4430		252		mg/Kg		08/16/23 15:08	08/19/23 23:17	5
C10-C28) Oll Range Organics (Over C28-C36)	<252	U	252		mg/Kg		08/16/23 15:08	08/19/23 23:17	5

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123	70 - 130	08/16/23 15:08	08/19/23 23:17	5
o-Terphenyl	111	70 - 130	08/16/23 15:08	08/19/23 23:17	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1910		24.9		mg/Kg			08/12/23 02:59	5

**Client Sample ID: PH04** Lab Sample ID: 890-5063-8

Date Collected: 08/07/23 13:30 Date Received: 08/09/23 08:15

Sample Depth: 4

l				
Method: SW	846 8021B	- Volatile Orga	anic Compound	s (GC)

mountain attain									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:08	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		08/16/23 13:37	08/17/23 02:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:08	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		08/16/23 13:37	08/17/23 02:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				08/16/23 13:37	08/17/23 02:08	1
1,4-Difluorobenzene (Surr)	104		70 - 130				08/16/23 13:37	08/17/23 02:08	1

Mothod: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00403	U	0.00403	ma/Ka			08/17/23 09:52	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	240		50.2	mg/K	g		08/21/23 11:32	1

**Eurofins Carlsbad** 

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-5063-8

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

**Client Sample ID: PH04** 

Date Collected: 08/07/23 13:30 Date Received: 08/09/23 08:15

Sample Depth: 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		08/16/23 15:08	08/19/23 23:39	1
Diesel Range Organics (Over C10-C28)	240		50.2		mg/Kg		08/16/23 15:08	08/19/23 23:39	1
Oll Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		08/16/23 15:08	08/19/23 23:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130				08/16/23 15:08	08/19/23 23:39	1
o-Terphenyl	102		70 - 130				08/16/23 15:08	08/19/23 23:39	1

Method: EPA 300.0 - Anions, Ion C	hromatography - So	oluble					
Analyte	Result Qualifie	er RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	306	5.01	mg/Kg			08/12/23 03:06	1

**Client Sample ID: PH05** 

Lab Sample ID: 890-5063-9 Date Collected: 08/07/23 13:40

Matrix: Solid Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:28	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:28	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		08/16/23 13:37	08/17/23 02:28	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 02:28	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		08/16/23 13:37	08/17/23 02:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				08/16/23 13:37	08/17/23 02:28	1
1,4-Difluorobenzene (Surr)	108		70 - 130				08/16/23 13:37	08/17/23 02:28	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	П	0.00404		mg/Kg			08/17/23 09:52	1
·	٠٥.٥٥٠	O	0.00404		mg/rtg			00/11/20 00:02	'
Method: SW846 8015 NM - Diese					mg/rtg			00/11/20 00:02	'
- -	l Range Organ			MDL	Unit	D	Prepared	Analyzed	
Thethod: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (	GC)	MDL		<u>D</u>	Prepared		Dil Fac
Method: SW846 8015 NM - Diese Analyte	Range Organ Result 71.0	ics (DRO) ( Qualifier	GC) RL 50.0	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	Range Organ Result 71.0 sel Range Orga	ics (DRO) ( Qualifier	GC) RL 50.0		Unit	D_	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	Range Organ Result 71.0 sel Range Orga	Qualifier  nics (DRO) Qualifier	GC)  RL  50.0		Unit mg/Kg			Analyzed 08/21/23 11:32	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Range Organ Result 71.0 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	GC)  RL  50.0  (GC)  RL		Unit mg/Kg		Prepared	Analyzed 08/21/23 11:32 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	Result 71.0 sel Range Organ Result <a href="#">&lt;50.0</a>	ics (DRO) ( Qualifier  nics (DRO) Qualifier U	GC)  RL  50.0  (GC)  RL  50.0		Unit mg/Kg  Unit mg/Kg		Prepared 08/16/23 15:08	Analyzed  08/21/23 11:32  Analyzed  08/20/23 00:01	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 71.0  sel Range Organ Result 71.0  sel Range Orga Result < 50.0  71.0	ics (DRO) ( Qualifier  nics (DRO) Qualifier U	GC)  RL  50.0  (GC)  RL  50.0  50.0		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08	Analyzed 08/21/23 11:32  Analyzed 08/20/23 00:01 08/20/23 00:01	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 71.0 sel Range Organ Result 71.0 sel Range Orga Result <50.0 71.0 <50.0	ics (DRO) ( Qualifier  nics (DRO) Qualifier U	GC)  RL  50.0  (GC)  RL  50.0  50.0		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08	Analyzed  08/21/23 11:32  Analyzed  08/20/23 00:01  08/20/23 00:01	Dil Fac  Dil Fac  1  Dil Fac  1  1  Dil Fac  1

#### **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

**Client Sample ID: PH05** 

Date Collected: 08/07/23 13:40

Date Received: 08/09/23 08:15

Lab Sample ID: 890-5063-9 Matrix: Solid

Sample Depth: 0.5

Me	ethod: EPA 300.0 - Anions, Ion Chr	omatograp	hy - Soluble	)						
An	alyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ch	loride	135		4.97		mg/Kg			08/12/23 03:13	1

**Client Sample ID: PH05** Lab Sample ID: 890-5063-10 **Matrix: Solid** 

Date Collected: 08/07/23 13:50 Date Received: 08/09/23 08:15

Sample Depth: 4

Total BTEX

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 02:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 02:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 02:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/16/23 13:37	08/17/23 02:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 02:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/16/23 13:37	08/17/23 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				08/16/23 13:37	08/17/23 02:49	1
1,4-Difluorobenzene (Surr)	106		70 - 130				08/16/23 13:37	08/17/23 02:49	1

ı	  Method: SW846 8015 NM - Diesel Rang	e Organ	ics (DRO) (GC)							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	63.4		50.0		mg/Kg			08/21/23 11:32	1
Ì	<del>-</del>									

0.00401

<0.00401 U

MDL Unit

mg/Kg

Prepared

Analyzed

08/17/23 09:52

Dil Fac

Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/16/23 15:08	08/20/23 00:22	1
Diesel Range Organics (Over C10-C28)	63.4		50.0		mg/Kg		08/16/23 15:08	08/20/23 00:22	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/16/23 15:08	08/20/23 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130				08/16/23 15:08	08/20/23 00:22	1
o-Terphenyl	119		70 - 130				08/16/23 15:08	08/20/23 00:22	1

Method: EPA 300.0 - Anions, Ion Ch	romatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	185	5.05	mg/Kg			08/12/23 03:20	1

Job ID: 890-5063-1

SDG: Lea County NM

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-11

Matrix: Solid

Date Collected: 08/07/23 14:00 Date Received: 08/09/23 08:15 Sample Denth: 0.5

**Client Sample ID: PH06** 

Sample	Deptili.	บ.จ

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 04:10	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 04:10	1
o-Xylene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 04:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				08/16/23 13:37	08/17/23 04:10	1
1,4-Difluorobenzene (Surr)	97		70 - 130				08/16/23 13:37	08/17/23 04:10	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	Result 51.3	Qualifier	<b>RL</b> 49.6	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/21/23 11:32	Dil Fac
					ilig/Kg			00/21/23 11.32	'
Method: SW846 8015B NM - Dies									
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		08/16/23 15:08	08/20/23 01:05	1
Diesel Range Organics (Over C10-C28)	51.3		49.6		mg/Kg		08/16/23 15:08	08/20/23 01:05	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		08/16/23 15:08	08/20/23 01:05	1
Surrogate	%Recovery		Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130				08/16/23 15:08	08/20/23 01:05	1
o-Terphenyl	121		70 - 130				08/16/23 15:08	08/20/23 01:05	1
-									
Method: EPA 300.0 - Anions, Ion	• •	•							
	• •	Qualifier	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/12/23 03:28	Dil Fac

Client Sample ID: PH06

Date Collected: 08/07/23 14:10 Date Received: 08/09/23 08:15

Sample Depth: 4

Lab Sample ID: 890-5063-12

**Matrix: Solid** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/16/23 13:37	08/17/23 04:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/16/23 13:37	08/17/23 04:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130				08/16/23 13:37	08/17/23 04:31	

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

Client Sample ID: PH06

Date Collected: 08/07/23 14:10

Lab Sam

Lab Sample ID: 890-5063-12

Date Received: 08/09/23 08:15

Matrix: Solid

Job ID: 890-5063-1

Sample Depth: 4

Method: SW846 8021B - V	/olatile Organic Compounds (	(GC) (Continued)
-------------------------	------------------------------	------------------

Surrogate		lifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	108	70 - 130	08/16/23 13:37	08/17/23 04:31	1

Method: TAL SOP	Total RTFX - Total	RTFX Calculation
Mictiliou. IAL OOI	TOTAL DIEX - TOTAL	DIEA Galcalation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400 U	0.00400	ma/Ka			08/17/23 09:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (0	н						
	ı	Mothod: CIMOAC ODAE NIM	Discal Bangs	Organica	(DDO)		١.
	н	MELITOU. SYVO40 OUTS INIVI-	· Diesei Kaliue	Organics	IURUI	uu	

Analyte	Result Qualifie	er RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	80.0	49.9	mg/Kg			08/21/23 11:32	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/16/23 15:08	08/20/23 01:26	1
Diesel Range Organics (Over C10-C28)	80.0		49.9		mg/Kg		08/16/23 15:08	08/20/23 01:26	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/16/23 15:08	08/20/23 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	Mecovery	Qualifier	Lilling	rrepareu	Allalyzeu	Diria
1-Chlorooctane	143	S1+	70 - 130	08/16/23 15:08	08/20/23 01:26	1
o-Terphenyl	124		70 - 130	08/16/23 15:08	08/20/23 01:26	•

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepai	ed Analyzed	Dil Fac
Chloride	189	4.96		mg/Kg			08/12/23 03:49	1

Client Sample ID: PH07

Date Collected: 08/07/23 14:20

Lab Sample ID: 890-5063-13

Matrix: Solid

Date Collected: 08/07/23 14:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

ı	Method: SW846 8021B	Valatila Ossasia	O = (OO)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:51	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/16/23 13:37	08/17/23 04:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 04:51	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/16/23 13:37	08/17/23 04:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				08/16/23 13:37	08/17/23 04:51	1
1,4-Difluorobenzene (Surr)	105		70 - 130				08/16/23 13:37	08/17/23 04:51	1

Mothod: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399		ma/Ka			08/17/23 09:52	1

Method: SW846 8015 NM - Diesel Range Organic	s (DRO)	(GC)
michiod. Offoro out of this - Diesel Mange Organic	,3 (DIXO)	1001

Analyte	Result	Qualifier	RL	MDL Un	nit	D	Prepared	Analyzed	Dil Fac
Total TPH	55.1		49.5	mç	g/Kg			08/21/23 11:32	1

**Eurofins Carlsbad** 

2

4

6

ŏ

10

12

13

Job ID: 890-5063-1

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery SDG: Lea County NM

**Client Sample ID: PH07** Lab Sample ID: 890-5063-13 Matrix: Solid

Date Collected: 08/07/23 14:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.5	U	49.5		mg/Kg		08/16/23 15:08	08/20/23 01:47	1
Diesel Range Organics (Over C10-C28)	55.1		49.5		mg/Kg		08/16/23 15:08	08/20/23 01:47	1
Oll Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		08/16/23 15:08	08/20/23 01:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130				08/16/23 15:08	08/20/23 01:47	1
o-Terphenyl	112		70 - 130				08/16/23 15:08	08/20/23 01:47	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	le						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Chloride 5.02 08/12/23 03:56 133 mg/Kg **Client Sample ID: PH07** Lab Sample ID: 890-5063-14

Date Collected: 08/07/23 14:30

Date Received: 08/09/23 08:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:12	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		08/16/23 13:37	08/17/23 05:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:12	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		08/16/23 13:37	08/17/23 05:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130				08/16/23 13:37	08/17/23 05:12	1
1,4-Difluorobenzene (Surr)	106		70 - 130				08/16/23 13:37	08/17/23 05:12	1
- Method: TAL SOP Total BTEX	- Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			08/17/23 09:52	1
- Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (	GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			08/21/23 11:32	1

Allalyte	Result	Qualifier	NL.	MIDL	Ollit	D	riepaieu	Allalyzeu	DII Fac
Total TPH	<50.1	U	50.1		mg/Kg			08/21/23 11:32	1
- Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		08/16/23 15:08	08/20/23 02:08	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		08/16/23 15:08	08/20/23 02:08	1
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		08/16/23 15:08	08/20/23 02:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130				08/16/23 15:08	08/20/23 02:08	1
o-Terphenyl	106		70 - 130				08/16/23 15:08	08/20/23 02:08	1

**Eurofins Carlsbad** 

**Matrix: Solid** 

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

Client Sample ID: PH07 Lab Sam

Lab Sample ID: 890-5063-14

Date Collected: 08/07/23 14:30 Date Received: 08/09/23 08:15 Matrix: Solid

Job ID: 890-5063-1

Sample Depth: 4

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	250		4.98		mg/Kg			08/12/23 04:18	1

Client Sample ID: PH08 Lab Sample ID: 890-5063-15

Date Collected: 08/07/23 14:40 Matrix: Solid

Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:32	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		08/16/23 13:37	08/17/23 05:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/16/23 13:37	08/17/23 05:32	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		08/16/23 13:37	08/17/23 05:32	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				08/16/23 13:37	08/17/23 05:32	1
1,4-Difluorobenzene (Surr)	102		70 - 130				08/16/23 13:37	08/17/23 05:32	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			08/17/23 09:52	1
Method: SW846 8015 NM - Diese	I Banga Organ	(DDO) (							
Analyte	•	Qualifier	GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	•	, , ,	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/21/23 11:32	
Analyte	Result 51.2	Qualifier		MDL		<u>D</u>	Prepared		
Analyte Total TPH  Method: SW846 8015B NM - Dies	Result 51.2	Qualifier		MDL	mg/Kg	<u>D</u>	Prepared Prepared		1
Analyte Total TPH	Result 51.2	Qualifier  nics (DRO) Qualifier	RL 50.2		mg/Kg	_ =	<u> </u>	08/21/23 11:32	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 51.2 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	RL 50.2 (GC)		mg/Kg	_ =	Prepared	08/21/23 11:32  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 51.2  sel Range Orga Result < 50.2	Qualifier  nics (DRO) Qualifier U	RL   50.2		mg/Kg  Unit mg/Kg	_ =	Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed  08/20/23 02:29	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 51.2  sel Range Orga Result < 50.2  51.2	Qualifier  nics (DRO) Qualifier U	RL 50.2 (GC) RL 50.2 50.2		mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 08/16/23 15:08 08/16/23 15:08	08/21/23 11:32  Analyzed  08/20/23 02:29  08/20/23 02:29	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 51.2  sel Range Orga Result < 50.2  51.2  50.2	Qualifier  nics (DRO) Qualifier U	RL 50.2 (GC) RL 50.2 50.2 50.2		mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08	08/21/23 11:32  Analyzed 08/20/23 02:29 08/20/23 02:29 08/20/23 02:29	Dil Face 1 1 1 1 Dil Face
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier  nics (DRO) Qualifier U	RL   50.2		mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared	08/21/23 11:32  Analyzed  08/20/23 02:29  08/20/23 02:29  08/20/23 02:29  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier  nics (DRO) Qualifier  U	RL 50.2  (GC)  RL 50.2  50.2  50.2  Limits  70 - 130  70 - 130		mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed 08/20/23 02:29 08/20/23 02:29  08/20/23 02:29  Analyzed 08/20/23 02:29	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier  nics (DRO) Qualifier  U	RL 50.2  (GC)  RL 50.2  50.2  50.2  Limits  70 - 130  70 - 130	MDL	mg/Kg  Unit mg/Kg  mg/Kg	_ =	Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed 08/20/23 02:29 08/20/23 02:29  08/20/23 02:29  Analyzed 08/20/23 02:29	Dil Fac

Job ID: 890-5063-1

Matrix: Solid

SDG: Lea County NM

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Client Sample ID: PH08 Lab Sample ID: 890-5063-16

Date Collected: 08/07/23 14:50 Date Received: 08/09/23 08:15

Sample Depth: 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 05:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 05:53	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 05:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 05:53	1
o-Xylene	< 0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 05:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 05:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				08/16/23 13:37	08/17/23 05:53	1
1,4-Difluorobenzene (Surr)	106		70 - 130				08/16/23 13:37	08/17/23 05:53	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/17/23 09:52	1
Method: SW846 8015 NM - Diese	al Pango Organ	ice (DBO) (	00)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	•	, ,,	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/21/23 11:32	
Analyte	Result 51.6	Qualifier		MDL		<u>D</u>	Prepared		
Analyte Total TPH	Result 51.6	Qualifier				<u>D</u>	Prepared Prepared		1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 51.6	Qualifier  nics (DRO)  Qualifier	RL 50.4		mg/Kg			08/21/23 11:32	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies	Result 51.6 sel Range Orga	Qualifier  nics (DRO) Qualifier	RL 50.4 (GC)		mg/Kg		Prepared	08/21/23 11:32  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 51.6 sel Range Orga Result <50.4	Qualifier  nics (DRO)  Qualifier  U	RL     50.4		mg/Kg  Unit mg/Kg		Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed  08/20/23 02:50	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 51.6  Sel Range Orga Result < 50.4  51.6	Qualifier  nics (DRO) Qualifier U	RL 50.4  (GC) RL 50.4  50.4		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08	08/21/23 11:32  Analyzed  08/20/23 02:50  08/20/23 02:50	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier  nics (DRO) Qualifier U	RL 50.4  (GC) RL 50.4  50.4  50.4		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08	08/21/23 11:32  Analyzed 08/20/23 02:50 08/20/23 02:50 08/20/23 02:50	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier  nics (DRO) Qualifier U	RL     50.4		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared	08/21/23 11:32  Analyzed  08/20/23 02:50  08/20/23 02:50  08/20/23 02:50  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier  nics (DRO) Qualifier  U  Qualifier	RL 50.4  (GC)  RL 50.4  50.4  50.4  Limits 70 - 130 70 - 130		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed 08/20/23 02:50 08/20/23 02:50  08/20/23 02:50  Analyzed 08/20/23 02:50	1 Dil Fac 1 1 1 1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies 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	Qualifier  nics (DRO) Qualifier  U  Qualifier	RL 50.4  (GC)  RL 50.4  50.4  50.4  Limits 70 - 130 70 - 130	MDL	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08 Prepared 08/16/23 15:08	08/21/23 11:32  Analyzed 08/20/23 02:50 08/20/23 02:50  08/20/23 02:50  Analyzed 08/20/23 02:50	·

**Client Sample ID: PH09** 

Date Collected: 08/07/23 15:00 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 06:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 06:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 06:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 06:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/16/23 13:37	08/17/23 06:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/16/23 13:37	08/17/23 06:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				08/16/23 13:37	08/17/23 06:14	

**Eurofins Carlsbad** 

Lab Sample ID: 890-5063-17

2

3

5

e S

10

12

13

no odnobad

**Matrix: Solid** 

Job ID: 890-5063-1

Matrix: Solid

SDG: Lea County NM

#### Client Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Client Sample ID: PH09 Lab Sample ID: 890-5063-17 Date Collected: 08/07/23 15:00

Sample Depth: 0.5

Date Received: 08/09/23 08:15

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

%Recovery Qualifier Limits Prepared Surrogate Analyzed Dil Fac 70 - 130 08/16/23 13:37 1,4-Difluorobenzene (Surr) 109 08/17/23 06:14

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

Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared Total BTEX <0.00398 0.00398 08/17/23 09:52 mg/Kg

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

Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

**Total TPH** 49.8 08/21/23 11:32 53.8 mg/Kg

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

**MDL** Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac <49.8 U mg/Kg 08/16/23 15:08 Gasoline Range Organics 49.8 08/20/23 03:11 (GRO)-C6-C10 49.8 08/16/23 15:08 08/20/23 03:11 **Diesel Range Organics (Over** 53.8 mg/Kg C10-C28)

OII Range Organics (Over C28-C36) <49.8 U 49.8 mg/Kg 08/16/23 15:08 08/20/23 03:11

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 119 70 - 130 08/16/23 15:08 08/20/23 03:11 101 70 - 130 08/16/23 15:08 08/20/23 03:11 o-Terphenyl

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 5.02 08/12/23 04:39 Chloride 98.0 mg/Kg

Client Sample ID: PH09 Lab Sample ID: 890-5063-18

Date Collected: 08/07/23 15:10 Date Received: 08/09/23 08:15

Sample Depth: 4

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

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene <0.00201 U 0.00201 mg/Kg 08/16/23 13:37 08/17/23 06:34 Toluene <0.00201 U 0.00201 08/16/23 13:37 08/17/23 06:34 mg/Kg Ethylbenzene <0.00201 U 0.00201 08/16/23 13:37 08/17/23 06:34 mg/Kg 08/17/23 06:34 m-Xylene & p-Xylene <0.00402 U 0.00402 08/16/23 13:37 mg/Kg o-Xylene <0.00201 U 0.00201 mg/Kg 08/16/23 13:37 08/17/23 06:34 Xylenes, Total <0.00402 U 0.00402 mg/Kg 08/16/23 13:37 08/17/23 06:34

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 4-Bromofluorobenzene (Surr) 93 08/16/23 13:37 08/17/23 06:34 1,4-Difluorobenzene (Surr) 103 70 - 130 08/16/23 13:37 08/17/23 06:34

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL MDL D Unit Prepared Analyzed Dil Fac Total BTEX <0.00402 0.00402 08/17/23 09:52 mg/Kg

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

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac **Total TPH** 50.2 08/21/23 11:32 62.3 mg/Kg

**Eurofins Carlsbad** 

**Matrix: Solid** 

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-18

Matrix: Solid

Job ID: 890-5063-1

SDG: Lea County NM

Date Collected: 08/07/23 15:10 Date Received: 08/09/23 08:15

**Client Sample ID: PH09** 

Sample Depth: 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		08/16/23 15:08	08/20/23 03:32	1
Diesel Range Organics (Over C10-C28)	62.3		50.2		mg/Kg		08/16/23 15:08	08/20/23 03:32	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		08/16/23 15:08	08/20/23 03:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				08/16/23 15:08	08/20/23 03:32	1
o-Terphenyl	99		70 - 130				08/16/23 15:08	08/20/23 03:32	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Allalyte									

**Client Sample ID: PH10** Lab Sample ID: 890-5063-19 **Matrix: Solid** 

Date Collected: 08/07/23 15:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 06:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 06:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 06:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/16/23 13:37	08/17/23 06:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 06:55	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/16/23 13:37	08/17/23 06:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				08/16/23 13:37	08/17/23 06:55	1
1,4-Difluorobenzene (Surr)	103		70 - 130				08/16/23 13:37	08/17/23 06:55	1
Analyte									
Total BTEX  Method: SW846 8015 NM - Diese		ics (DRO) (		MDL	mg/Kg	— — D	Prepared	08/17/23 09:52	
Total BTEX Method: SW846 8015 NM - Diese Analyte	l Range Organ			MDL		<u>D</u>	Prepared	08/17/23 09:52  Analyzed  08/21/23 11:32	
Total BTEX  Method: SW846 8015 NM - Diese Analyte  Total TPH  Method: SW846 8015B NM - Diese	Range Organ Result 56.6 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	GC) RL 50.5		Unit	D	Prepared Prepared	Analyzed	Dil Fac
Total BTEX	Range Organ Result 56.6 sel Range Orga	Qualifier  nics (DRO) Qualifier	RL 50.5		Unit mg/Kg			Analyzed 08/21/23 11:32	Dil Fac
Total BTEX  Method: SW846 8015 NM - Diese Analyte  Total TPH  Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Range Organ Result 56.6 sel Range Orga Result	Qualifier  nics (DRO) Qualifier	GC)  RL  50.5		Unit mg/Kg		Prepared	Analyzed 08/21/23 11:32 Analyzed	Dil Fac
Total BTEX  Method: SW846 8015 NM - Diese Analyte  Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 56.6 sel Range Organ Result <a href="#">&lt;50.5</a>	ics (DRO) (Qualifier  nics (DRO) Qualifier U	GC)  RL 50.5  (GC)  RL 50.5		Unit mg/Kg  Unit mg/Kg		Prepared 08/16/23 15:08	Analyzed 08/21/23 11:32  Analyzed 08/20/23 03:54	Dil Fac
Total BTEX  Method: SW846 8015 NM - Diese Analyte  Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 56.6 sel Range Organ Result 56.6 sel Range Orga Result < 50.5 56.6	ics (DRO) (Qualifier  nics (DRO) Qualifier U	GC)  RL  50.5  (GC)  RL  50.5  50.5		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08	Analyzed 08/21/23 11:32  Analyzed 08/20/23 03:54 08/20/23 03:54	1 Dil Fac 1 1
Total BTEX  Method: SW846 8015 NM - Diese Analyte  Total TPH  Method: SW846 8015B NM - Diese Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 56.6 sel Range Organ Result 56.6 sel Range Organ Result 50.5 56.6	ics (DRO) (Qualifier  nics (DRO) Qualifier U	GC)  RL 50.5  (GC) RL 50.5  50.5  50.5		Unit mg/Kg  Unit mg/Kg mg/Kg		Prepared 08/16/23 15:08 08/16/23 15:08 08/16/23 15:08	Analyzed  08/21/23 11:32  Analyzed  08/20/23 03:54  08/20/23 03:54	Dil Fac  Dil Fac  1

Job ID: 890-5063-1

Matrix: Solid

#### **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery SDG: Lea County NM

Lab Sample ID: 890-5063-19

**Client Sample ID: PH10** 

Date Collected: 08/07/23 15:20 Date Received: 08/09/23 08:15

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	9						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		4.99		mg/Kg			08/12/23 04:54	1

**Client Sample ID: PH10** Lab Sample ID: 890-5063-20 **Matrix: Solid** 

Date Collected: 08/07/23 15:30 Date Received: 08/09/23 08:15

Sample Depth: 4

o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 07:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 07:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 07:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/16/23 13:37	08/17/23 07:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/17/23 07:15	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/16/23 13:37	08/17/23 07:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				08/16/23 13:37	08/17/23 07:15	1
1,4-Difluorobenzene (Surr)	109		70 - 130				08/16/23 13:37	08/17/23 07:15	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Total BTEX	<0.00399	J	0.00399	mg/Kg			08/17/23 09:52	1
Method: SW846 8015 NM - Diesel F	Range Organic	s (DRO) (G	C)					
Analyte	Result C	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	74.8		49.6	mg/Kg			08/21/23 11:32	1

				3 3				
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		08/16/23 15:08	08/20/23 04:15	1
Diesel Range Organics (Over C10-C28)	74.8		49.6	mg/Kg		08/16/23 15:08	08/20/23 04:15	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		08/16/23 15:08	08/20/23 04:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			08/16/23 15:08	08/20/23 04:15	1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	1	Prepared	Analyzed	Dil Fac
Chloride	104		4.97		mg/Kg				08/12/23 05:01	1

70 - 130

102

**Eurofins Carlsbad** 

08/20/23 04:15

08/16/23 15:08

# **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Lin
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-5063-1	PH01	83	98	
90-5063-1 MS	PH01	93	105	
90-5063-1 MSD	PH01	91	106	
90-5063-2	PH01	87	108	
90-5063-3	PH02	95	112	
90-5063-4	PH02	91	107	
90-5063-5	PH03	89	105	
90-5063-6	PH03	96	106	
90-5063-7	PH04	87	114	
90-5063-8	PH04	87	104	
90-5063-9	PH05	94	108	
90-5063-10	PH05	93	106	
90-5063-11	PH06	92	97	
90-5063-12	PH06	97	108	
90-5063-13	PH07	94	105	
90-5063-14	PH07	101	106	
90-5063-15	PH08	91	102	
90-5063-16	PH08	96	106	
90-5063-17	PH09	100	109	
90-5063-18	PH09	93	103	
90-5063-19	PH10	90	103	
90-5063-20	PH10	104	109	
CS 880-60387/1-A	Lab Control Sample	97	108	
CSD 880-60387/2-A	Lab Control Sample Dup	94	106	
B 880-60350/8	Method Blank	75	95	
B 880-60387/5-A	Method Blank	76	93	

BFB = 4-Bromofluorobenzene (Surr)

Released to Imaging: 12/22/2023 9:08:07 AM

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limi
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-5063-1	PH01	237 S1+	204 S1+	
390-5063-2	PH01	128	107	
890-5063-3	PH02	120	103	
890-5063-4	PH02	120	101	
890-5063-4 MS	PH02	114	90	
890-5063-4 MSD	PH02	114	87	
890-5063-5	PH03	120	102	
890-5063-6	PH03	237 S1+	200 S1+	
890-5063-7	PH04	123	111	
890-5063-8	PH04	118	102	
890-5063-9	PH05	124	109	
890-5063-10	PH05	137 S1+	119	
890-5063-11	PH06	138 S1+	121	

# **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1

Project/Site: WEU Federal D Battery

SDG: Lea County NM

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-5063-12	PH06	143 S1+	124	
890-5063-13	PH07	132 S1+	112	
890-5063-14	PH07	125	106	
890-5063-15	PH08	122	103	
890-5063-16	PH08	118	99	
890-5063-17	PH09	119	101	
890-5063-18	PH09	118	99	
890-5063-19	PH10	125	105	
890-5063-20	PH10	121	102	
LCS 880-60390/2-A	Lab Control Sample	119	107	
LCSD 880-60390/3-A	Lab Control Sample Dup	142 S1+	126	
MB 880-60390/1-A	Method Blank	155 S1+	136 S1+	
Surrogate Legend				

1CO = 1-Chlorooctane OTPH = o-Terphenyl

**Eurofins Carlsbad** 

3

4

6

8

10

13

14

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60350/8

**Matrix: Solid** Analysis Batch: 60350

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB MDL Unit Dil Fac Result Qualifier RL Prepared Analyzed <0.00200 U 0.00200 mg/Kg 08/16/23 12:12 <0.00200 U 0.00200 mg/Kg 08/16/23 12:12 <0.00200 U 0.00200 08/16/23 12:12 mg/Kg <0.00400 U 08/16/23 12:12 0.00400 mg/Kg

mg/Kg

mg/Kg

MB MB

<0.00200 U

<0.00400 U

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75	70 - 130		08/16/23 12:12	1
1,4-Difluorobenzene (Surr)	95	70 - 130		08/16/23 12:12	1

0.00200

0.00400

Lab Sample ID: MB 880-60387/5-A

**Matrix: Solid** 

Client Sample ID: Method Blank

08/16/23 12:12

08/16/23 12:12

Prep Type: Total/NA

Analysis Batch: 60350								Prep Batch	n: 60387
_	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/16/23 23:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/16/23 13:37	08/16/23 23:22	1
Ethylhenzene	<0.00200	11	0.00200		ma/Ka		08/16/23 13:37	08/16/23 23:22	1

Benzene	<0.00200 U	0.00200	mg/Kg	08/16/23 13:37	08/16/23 23:22	1
Toluene	<0.00200 U	0.00200	mg/Kg	08/16/23 13:37	08/16/23 23:22	1
Ethylbenzene	<0.00200 U	0.00200	mg/Kg	08/16/23 13:37	08/16/23 23:22	1
m-Xylene & p-Xylene	<0.00400 U	0.00400	mg/Kg	08/16/23 13:37	08/16/23 23:22	1
o-Xylene	<0.00200 U	0.00200	mg/Kg	08/16/23 13:37	08/16/23 23:22	1
Xylenes, Total	<0.00400 U	0.00400	mg/Kg	08/16/23 13:37	08/16/23 23:22	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	08/16/23 13.	37 08/16/23 23:22	1
1,4-Difluorobenzene (Surr)	93		70 - 130	08/16/23 13:	37 08/16/23 23:22	1

Lab Sample ID: LCS 880-60387/1-A

**Matrix: Solid** 

Analysis Batch: 60350

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 60387

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09844		mg/Kg		98	70 - 130	
Toluene	0.100	0.09954		mg/Kg		100	70 - 130	
Ethylbenzene	0.100	0.08718		mg/Kg		87	70 - 130	
m-Xylene & p-Xylene	0.200	0.1871		mg/Kg		94	70 - 130	
o-Xylene	0.100	0.09537		mg/Kg		95	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1.4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: LCSD 880-60387/2-A

Matrix: Solid

**Analysis Batch: 60350** 

Client Sample	ID: Lab Contro	I Sample Dup
	Prop T	vno: Total/NA

Prep Type: Total/NA

Prep Batch: 60387

	Spike	LCSD LCSD				%Rec		KPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09926	mg/Kg		99	70 - 130	1	35	

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1 SDG: Lea County NM

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

Lab Sample ID: LCSD 880-60387/2-A

**Matrix: Solid** 

Analysis Batch: 60350

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 60387

Spike	LCSD	LCSD				%Rec		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.09721		mg/Kg		97	70 - 130	2	35
0.100	0.08370		mg/Kg		84	70 - 130	4	35
0.200	0.1774		mg/Kg		89	70 - 130	5	35
0.100	0.09073		mg/Kg		91	70 - 130	5	35
	Added 0.100 0.100 0.200	Added         Result           0.100         0.09721           0.100         0.08370           0.200         0.1774	Added         Result         Qualifier           0.100         0.09721           0.100         0.08370           0.200         0.1774	Added         Result 0.100         Qualifier 0.09721         Unit mg/Kg           0.100         0.08370         mg/Kg           0.200         0.1774         mg/Kg	Added         Result         Qualifier         Unit         D           0.100         0.09721         mg/Kg           0.100         0.08370         mg/Kg           0.200         0.1774         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           0.100         0.09721         mg/Kg         97           0.100         0.08370         mg/Kg         84           0.200         0.1774         mg/Kg         89	Added         Result         Qualifier         Unit         D         %Rec         Limits           0.100         0.09721         mg/Kg         97         70 - 130           0.100         0.08370         mg/Kg         84         70 - 130           0.200         0.1774         mg/Kg         89         70 - 130	Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           0.100         0.09721         mg/Kg         97         70 - 130         2           0.100         0.08370         mg/Kg         84         70 - 130         4           0.200         0.1774         mg/Kg         89         70 - 130         5

LCSD LCSD

Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 890-5063-1 MS

**Matrix: Solid** 

Analysis Batch: 60350

**Client Sample ID: PH01** Prep Type: Total/NA Prep Batch: 60387

MS MS %Rec Sample Sample Spike Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Benzene <0.00199 0.0996 0.07984 80 70 - 130 mg/Kg Toluene <0.00199 U 0.0996 0.07808 78 70 - 130 mg/Kg Ethylbenzene <0.00199 UF1 0.0996 0.06012 F1 70 - 130 mg/Kg 60 m-Xylene & p-Xylene <0.00398 UF1 0.199 0.1248 F1 63 70 - 130 mg/Kg o-Xylene <0.00199 UF1 0.0996 0.06094 F1 mg/Kg 61 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	93	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

Lab Sample ID: 890-5063-1 MSD

**Matrix: Solid** 

Analysis Batch: 60350

**Client Sample ID: PH01** 

Prep Type: Total/NA Prep Batch: 60387

7											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.101	0.08486		mg/Kg		84	70 - 130	6	35
Toluene	<0.00199	U	0.101	0.07902		mg/Kg		78	70 - 130	1	35
Ethylbenzene	<0.00199	U F1	0.101	0.05998	F1	mg/Kg		59	70 - 130	0	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1226	F1	mg/Kg		61	70 - 130	2	35
o-Xylene	<0.00199	U F1	0.101	0.06042	F1	mg/Kg		60	70 - 130	1	35

MSD MSD

Surroyate	76Recovery	Qualifier	Lillits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-60390/1-A

**Matrix: Solid** 

**Analysis Batch: 60609** 

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

Prep Batch: 60390

	MB	MB								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/16/23 15:08	08/19/23 19:18	1		
(GRO)-C6-C10										

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: MB 880-60390/1-A **Matrix: Solid** 

**Analysis Batch: 60609** 

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

Prep Batch: 60390

Prep Type: Total/NA

Prep Batch: 60390

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 08/16/23 15:08 08/19/23 19:18 Diesel Range Organics (Over mg/Kg C10-C28) Oll Range Organics (Over C28-C36) 50.0 08/16/23 15:08 08/19/23 19:18 <50.0 U mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	155	S1+	70 - 130	08/16/23 15:08	08/19/23 19:18	1
o-Terphenyl	136	S1+	70 - 130	08/16/23 15:08	08/19/23 19:18	1

**Client Sample ID: Lab Control Sample** 

Lab Sample ID: LCS 880-60390/2-A **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 60609 Prep Batch: 60390

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	920.0		mg/Kg		92	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	974.1		mg/Kg		97	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-60390/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 60609** 

•	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	946.8		mg/Kg		95	70 - 130	3	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1050		mg/Kg		105	70 - 130	7	20

C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	142	S1+	70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: 890-5063-4 MS Client Sample ID: PH02 Matr

Anal

trix: Solid				Prep Type: Total/NA
alysis Batch: 60609				Prep Batch: 60390
	Sample Sample	Spike	MS MS	%Rec

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.6	U	1000	1171		mg/Kg		114	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.6	U	1000	963.4		mg/Kg		94	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	90		70 - 130

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

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

Lab Sample ID: 890-5063-4 MSD

**Matrix: Solid** 

Analysis Batch: 60609

Client Sample ID: PH02

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

90 - 110

**Prep Type: Soluble** 

**Client Sample ID: PH01** 

**Prep Type: Soluble** 

Prep Type: Total/NA

Prep Batch: 60390

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.6	U	1000	1189		mg/Kg		115	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.6	U	1000	984.3		mg/Kg		96	70 - 130	2	20
C10-C28)											

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	87		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59872/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 60016** 

мв мв

226 F1

Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	n	mg/Kg			08/12/23 01:26	1

Lab Sample ID: LCS 880-59872/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 60016** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	259.9	,	mg/Kg		104	90 - 110	 

Lab Sample ID: LCSD 880-59872/3-A

**Matrix: Solid** 

Analysis Batch: 60016

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	260.7		ma/Ka		104	90 - 110		20	

Lab Sample ID: 890-5063-1 MS

**Matrix: Solid** 

Analysis Batch: 60016

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	226	F1	250	382.2	F1	ma/Ka		63	90 110	

Chloride

l	Lab Sample ID: 890-5063-1 MSD										Client Sa	mple ID:	PH01
	Matrix: Solid										Prep	Type: So	oluble
	Analysis Batch: 60016												
		Sample	Sample	Spike	MSD	MSD					%Rec		RPD
l	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%	Rec	Limits	RPD	Limit

379.4 F1

mg/Kg

250

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-5063-11 MS

**Matrix: Solid** Analysis Batch: 60016

Alialysis Balcii. 000 10										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	219	F1	250	386.4	F1	ma/Ka		67	90 - 110	

Lab Sample ID: 890-5063-11 MSD

**Matrix: Solid** 

**Analysis Batch: 60016** 

-1	7 manyone Batom evert											
		Sample	Sample	Spike	MSD	MSD				%Rec		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Chloride	219	F1	250	386.5	F1	mg/Kg		67	90 - 110	0	20

**Client Sample ID: PH06** 

**Prep Type: Soluble** 

**Client Sample ID: PH06** 

**Prep Type: Soluble** 

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery Job ID: 890-5063-1 SDG: Lea County NM

#### **GC VOA**

#### Analysis Batch: 60350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-1	PH01	Total/NA	Solid	8021B	60387
890-5063-2	PH01	Total/NA	Solid	8021B	60387
890-5063-3	PH02	Total/NA	Solid	8021B	60387
890-5063-4	PH02	Total/NA	Solid	8021B	60387
890-5063-5	PH03	Total/NA	Solid	8021B	60387
890-5063-6	PH03	Total/NA	Solid	8021B	60387
890-5063-7	PH04	Total/NA	Solid	8021B	60387
890-5063-8	PH04	Total/NA	Solid	8021B	60387
890-5063-9	PH05	Total/NA	Solid	8021B	60387
890-5063-10	PH05	Total/NA	Solid	8021B	60387
890-5063-11	PH06	Total/NA	Solid	8021B	60387
890-5063-12	PH06	Total/NA	Solid	8021B	60387
890-5063-13	PH07	Total/NA	Solid	8021B	60387
890-5063-14	PH07	Total/NA	Solid	8021B	60387
890-5063-15	PH08	Total/NA	Solid	8021B	60387
890-5063-16	PH08	Total/NA	Solid	8021B	60387
890-5063-17	PH09	Total/NA	Solid	8021B	60387
890-5063-18	PH09	Total/NA	Solid	8021B	60387
890-5063-19	PH10	Total/NA	Solid	8021B	60387
890-5063-20	PH10	Total/NA	Solid	8021B	60387
MB 880-60350/8	Method Blank	Total/NA	Solid	8021B	
MB 880-60387/5-A	Method Blank	Total/NA	Solid	8021B	60387
LCS 880-60387/1-A	Lab Control Sample	Total/NA	Solid	8021B	60387
LCSD 880-60387/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60387
890-5063-1 MS	PH01	Total/NA	Solid	8021B	60387
890-5063-1 MSD	PH01	Total/NA	Solid	8021B	60387

#### Prep Batch: 60387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-5063-1	PH01	Total/NA	Solid	5035	_
390-5063-2	PH01	Total/NA	Solid	5035	
390-5063-3	PH02	Total/NA	Solid	5035	
390-5063-4	PH02	Total/NA	Solid	5035	
90-5063-5	PH03	Total/NA	Solid	5035	
390-5063-6	PH03	Total/NA	Solid	5035	
390-5063-7	PH04	Total/NA	Solid	5035	
390-5063-8	PH04	Total/NA	Solid	5035	
390-5063-9	PH05	Total/NA	Solid	5035	
90-5063-10	PH05	Total/NA	Solid	5035	
90-5063-11	PH06	Total/NA	Solid	5035	
390-5063-12	PH06	Total/NA	Solid	5035	
90-5063-13	PH07	Total/NA	Solid	5035	
390-5063-14	PH07	Total/NA	Solid	5035	
390-5063-15	PH08	Total/NA	Solid	5035	
390-5063-16	PH08	Total/NA	Solid	5035	
390-5063-17	PH09	Total/NA	Solid	5035	
390-5063-18	PH09	Total/NA	Solid	5035	
390-5063-19	PH10	Total/NA	Solid	5035	
390-5063-20	PH10	Total/NA	Solid	5035	
MB 880-60387/5-A	Method Blank	Total/NA	Solid	5035	
_CS 880-60387/1-A	Lab Control Sample	Total/NA	Solid	5035	

**Eurofins Carlsbad** 

2

3

4

6

8

9

11

12

14

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

# **GC VOA (Continued)**

#### Prep Batch: 60387 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-60387/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5063-1 MS	PH01	Total/NA	Solid	5035	
890-5063-1 MSD	PH01	Total/NA	Solid	5035	

#### Analysis Batch: 60441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-1	PH01	Total/NA	Solid	Total BTEX	
890-5063-2	PH01	Total/NA	Solid	Total BTEX	
890-5063-3	PH02	Total/NA	Solid	Total BTEX	
890-5063-4	PH02	Total/NA	Solid	Total BTEX	
890-5063-5	PH03	Total/NA	Solid	Total BTEX	
890-5063-6	PH03	Total/NA	Solid	Total BTEX	
890-5063-7	PH04	Total/NA	Solid	Total BTEX	
890-5063-8	PH04	Total/NA	Solid	Total BTEX	
890-5063-9	PH05	Total/NA	Solid	Total BTEX	
890-5063-10	PH05	Total/NA	Solid	Total BTEX	
890-5063-11	PH06	Total/NA	Solid	Total BTEX	
890-5063-12	PH06	Total/NA	Solid	Total BTEX	
890-5063-13	PH07	Total/NA	Solid	Total BTEX	
890-5063-14	PH07	Total/NA	Solid	Total BTEX	
890-5063-15	PH08	Total/NA	Solid	Total BTEX	
890-5063-16	PH08	Total/NA	Solid	Total BTEX	
890-5063-17	PH09	Total/NA	Solid	Total BTEX	
890-5063-18	PH09	Total/NA	Solid	Total BTEX	
890-5063-19	PH10	Total/NA	Solid	Total BTEX	
890-5063-20	PH10	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

#### Prep Batch: 60390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-5063-1	PH01	Total/NA	Solid	8015NM Prep	
890-5063-2	PH01	Total/NA	Solid	8015NM Prep	
890-5063-3	PH02	Total/NA	Solid	8015NM Prep	
890-5063-4	PH02	Total/NA	Solid	8015NM Prep	
890-5063-5	PH03	Total/NA	Solid	8015NM Prep	
890-5063-6	PH03	Total/NA	Solid	8015NM Prep	
890-5063-7	PH04	Total/NA	Solid	8015NM Prep	
890-5063-8	PH04	Total/NA	Solid	8015NM Prep	
890-5063-9	PH05	Total/NA	Solid	8015NM Prep	
890-5063-10	PH05	Total/NA	Solid	8015NM Prep	
890-5063-11	PH06	Total/NA	Solid	8015NM Prep	
390-5063-12	PH06	Total/NA	Solid	8015NM Prep	
890-5063-13	PH07	Total/NA	Solid	8015NM Prep	
890-5063-14	PH07	Total/NA	Solid	8015NM Prep	
890-5063-15	PH08	Total/NA	Solid	8015NM Prep	
890-5063-16	PH08	Total/NA	Solid	8015NM Prep	
390-5063-17	PH09	Total/NA	Solid	8015NM Prep	
890-5063-18	PH09	Total/NA	Solid	8015NM Prep	
390-5063-19	PH10	Total/NA	Solid	8015NM Prep	
890-5063-20	PH10	Total/NA	Solid	8015NM Prep	

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery

Job ID: 890-5063-1 SDG: Lea County NM

**GC Semi VOA (Continued)** 

#### Prep Batch: 60390 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60390/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60390/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60390/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5063-4 MS	PH02	Total/NA	Solid	8015NM Prep	
890-5063-4 MSD	PH02	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 60609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-1	PH01	Total/NA	Solid	8015B NM	60390
890-5063-2	PH01	Total/NA	Solid	8015B NM	60390
890-5063-3	PH02	Total/NA	Solid	8015B NM	60390
890-5063-4	PH02	Total/NA	Solid	8015B NM	60390
890-5063-5	PH03	Total/NA	Solid	8015B NM	60390
890-5063-6	PH03	Total/NA	Solid	8015B NM	60390
890-5063-7	PH04	Total/NA	Solid	8015B NM	60390
890-5063-8	PH04	Total/NA	Solid	8015B NM	60390
890-5063-9	PH05	Total/NA	Solid	8015B NM	60390
890-5063-10	PH05	Total/NA	Solid	8015B NM	60390
890-5063-11	PH06	Total/NA	Solid	8015B NM	60390
890-5063-12	PH06	Total/NA	Solid	8015B NM	60390
890-5063-13	PH07	Total/NA	Solid	8015B NM	60390
890-5063-14	PH07	Total/NA	Solid	8015B NM	60390
890-5063-15	PH08	Total/NA	Solid	8015B NM	60390
890-5063-16	PH08	Total/NA	Solid	8015B NM	60390
890-5063-17	PH09	Total/NA	Solid	8015B NM	60390
890-5063-18	PH09	Total/NA	Solid	8015B NM	60390
890-5063-19	PH10	Total/NA	Solid	8015B NM	60390
890-5063-20	PH10	Total/NA	Solid	8015B NM	60390
MB 880-60390/1-A	Method Blank	Total/NA	Solid	8015B NM	60390
LCS 880-60390/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60390
LCSD 880-60390/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60390
890-5063-4 MS	PH02	Total/NA	Solid	8015B NM	60390
890-5063-4 MSD	PH02	Total/NA	Solid	8015B NM	60390

#### Analysis Batch: 60721

Released to Imaging: 12/22/2023 9:08:07 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-1	PH01	Total/NA	Solid	8015 NM	
890-5063-2	PH01	Total/NA	Solid	8015 NM	
890-5063-3	PH02	Total/NA	Solid	8015 NM	
890-5063-4	PH02	Total/NA	Solid	8015 NM	
890-5063-5	PH03	Total/NA	Solid	8015 NM	
890-5063-6	PH03	Total/NA	Solid	8015 NM	
890-5063-7	PH04	Total/NA	Solid	8015 NM	
890-5063-8	PH04	Total/NA	Solid	8015 NM	
890-5063-9	PH05	Total/NA	Solid	8015 NM	
890-5063-10	PH05	Total/NA	Solid	8015 NM	
890-5063-11	PH06	Total/NA	Solid	8015 NM	
890-5063-12	PH06	Total/NA	Solid	8015 NM	
890-5063-13	PH07	Total/NA	Solid	8015 NM	
890-5063-14	PH07	Total/NA	Solid	8015 NM	
890-5063-15	PH08	Total/NA	Solid	8015 NM	

**Eurofins Carlsbad** 

3

4

6

8

10

12

13

\_\_\_\_\_

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery

Job ID: 890-5063-1

SDG: Lea County NM

#### **GC Semi VOA (Continued)**

#### **Analysis Batch: 60721 (Continued)**

Total/NA	Solid	8015 NM	
Total/NA	Solid	8015 NM	
Total/NA	Solid	8015 NM	
Total/NA	Solid	8015 NM	
Total/NA	Solid	8015 NM	
	Total/NA	Total/NA Solid Total/NA Solid	Total/NA         Solid         8015 NM           Total/NA         Solid         8015 NM

#### **HPLC/IC**

#### Leach Batch: 59872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-1	PH01	Soluble	Solid	DI Leach	
890-5063-2	PH01	Soluble	Solid	DI Leach	
890-5063-3	PH02	Soluble	Solid	DI Leach	
890-5063-4	PH02	Soluble	Solid	DI Leach	
890-5063-5	PH03	Soluble	Solid	DI Leach	
890-5063-6	PH03	Soluble	Solid	DI Leach	
890-5063-7	PH04	Soluble	Solid	DI Leach	
890-5063-8	PH04	Soluble	Solid	DI Leach	
890-5063-9	PH05	Soluble	Solid	DI Leach	
890-5063-10	PH05	Soluble	Solid	DI Leach	
890-5063-11	PH06	Soluble	Solid	DI Leach	
890-5063-12	PH06	Soluble	Solid	DI Leach	
890-5063-13	PH07	Soluble	Solid	DI Leach	
890-5063-14	PH07	Soluble	Solid	DI Leach	
890-5063-15	PH08	Soluble	Solid	DI Leach	
890-5063-16	PH08	Soluble	Solid	DI Leach	
890-5063-17	PH09	Soluble	Solid	DI Leach	
890-5063-18	PH09	Soluble	Solid	DI Leach	
890-5063-19	PH10	Soluble	Solid	DI Leach	
890-5063-20	PH10	Soluble	Solid	DI Leach	
MB 880-59872/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59872/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59872/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5063-1 MS	PH01	Soluble	Solid	DI Leach	
890-5063-1 MSD	PH01	Soluble	Solid	DI Leach	
890-5063-11 MS	PH06	Soluble	Solid	DI Leach	
890-5063-11 MSD	PH06	Soluble	Solid	DI Leach	

#### **Analysis Batch: 60016**

Released to Imaging: 12/22/2023 9:08:07 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-1	PH01	Soluble	Solid	300.0	59872
890-5063-2	PH01	Soluble	Solid	300.0	59872
890-5063-3	PH02	Soluble	Solid	300.0	59872
890-5063-4	PH02	Soluble	Solid	300.0	59872
890-5063-5	PH03	Soluble	Solid	300.0	59872
890-5063-6	PH03	Soluble	Solid	300.0	59872
890-5063-7	PH04	Soluble	Solid	300.0	59872
890-5063-8	PH04	Soluble	Solid	300.0	59872
890-5063-9	PH05	Soluble	Solid	300.0	59872
890-5063-10	PH05	Soluble	Solid	300.0	59872
890-5063-11	PH06	Soluble	Solid	300.0	59872

# **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1

Project/Site: WEU Federal D Battery

SDG: Lea County NM

## **HPLC/IC (Continued)**

#### **Analysis Batch: 60016 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5063-12	PH06	Soluble	Solid	300.0	59872
890-5063-13	PH07	Soluble	Solid	300.0	59872
890-5063-14	PH07	Soluble	Solid	300.0	59872
890-5063-15	PH08	Soluble	Solid	300.0	59872
890-5063-16	PH08	Soluble	Solid	300.0	59872
890-5063-17	PH09	Soluble	Solid	300.0	59872
890-5063-18	PH09	Soluble	Solid	300.0	59872
890-5063-19	PH10	Soluble	Solid	300.0	59872
890-5063-20	PH10	Soluble	Solid	300.0	59872
MB 880-59872/1-A	Method Blank	Soluble	Solid	300.0	59872
LCS 880-59872/2-A	Lab Control Sample	Soluble	Solid	300.0	59872
LCSD 880-59872/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59872
890-5063-1 MS	PH01	Soluble	Solid	300.0	59872
890-5063-1 MSD	PH01	Soluble	Solid	300.0	59872
890-5063-11 MS	PH06	Soluble	Solid	300.0	59872
890-5063-11 MSD	PH06	Soluble	Solid	300.0	59872

5

\_

8

9

10

12

13

14

Client: Etech Environmental & Safety Solutions

Analysis

Leach

Analysis

8015B NM

DI Leach

300.0

Project/Site: WEU Federal D Battery

**Client Sample ID: PH01** Date Collected: 08/07/23 12:20 Date Received: 08/09/23 08:15 Lab Sample ID: 890-5063-1

Matrix: Solid

Job ID: 890-5063-1

SDG: Lea County NM

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/16/23 23:44	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 q	10 mL	60390	08/16/23 15:08	TKC	EET MID

1 uL

5 g

50 mL

1 uL

50 mL

50 mL

60609

59872

60016

08/19/23 21:28

08/10/23 15:17

08/12/23 01:47

Lab Sample ID: 890-5063-2

SM

KS

SMC

**Matrix: Solid** 

**EET MID** 

EET MID

**EET MID** 

Date Collected: 08/07/23 12:30 Date Received: 08/09/23 08:15

**Client Sample ID: PH01** 

Total/NA

Soluble

Soluble

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 00:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 21:50	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 02:09	SMC	EET MID

**Client Sample ID: PH02** 

Date Collected: 08/07/23 12:40 Date Received: 08/09/23 08:15

Lab Sample ID: 890-5063-3

Lab Sample ID: 890-5063-4

**Matrix: Solid** 

	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	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 00:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 22:12	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 02:16	SMC	EET MID

**Client Sample ID: PH02** 

**Date** 

Date

Batch	Batch	Dil	Initial	Final	Batch	Prenared	
Received: 08/09/23 08:15	5						
Collected: 08/07/23 12:50	0						Matrix: Solid
•							

	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	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 00:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID

**Eurofins Carlsbad** 

Page 35 of 50

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-4

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

**Matrix: Solid** 

Job ID: 890-5063-1

SDG: Lea County NM

**Client Sample ID: PH02** 

Date Collected: 08/07/23 12:50 Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 20:23	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 02:23	SMC	EET MID

**Client Sample ID: PH03** Lab Sample ID: 890-5063-5

Date Collected: 08/07/23 13:00 Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 01:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 22:34	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 02:30	SMC	EET MID

**Client Sample ID: PH03** Lab Sample ID: 890-5063-6

Date Collected: 08/07/23 13:10 Date Received: 08/09/23 08:15

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Type Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 5.01 g 5 mL 60387 08/16/23 13:37 EL EET MID Total/NA 8021B 5 mL 5 mL 60350 08/17/23 01:26 SM EET MID Analysis 1 Total/NA Analysis Total BTEX 1 60441 08/17/23 09:52 SM **EET MID** Total/NA Analysis 8015 NM 60721 08/21/23 11:32 SM **EET MID** 1 08/16/23 15:08 Total/NA Prep 8015NM Prep 9.98 g 10 mL 60390 TKC **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 60609 08/19/23 22:56 SM **EET MID** Soluble Leach DI Leach 5.04 g 50 mL 59872 08/10/23 15:17 KS EET MID Soluble Analysis 300.0 50 mL 50 mL 60016 08/12/23 02:52 SMC EET MID 1

**Client Sample ID: PH04** Lab Sample ID: 890-5063-7

Date Collected: 08/07/23 13:20 Date Received: 08/09/23 08:15

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 01:47	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		5	9.94 g 1 uL	10 mL 1 uL	60390 60609	08/16/23 15:08 08/19/23 23:17	TKC SM	EET MID EET MID

**Eurofins Carlsbad** 

Page 36 of 50

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-7

**Client Sample ID: PH04** 

Date Received: 08/09/23 08:15

Date Collected: 08/07/23 13:20

Matrix: Solid

Job ID: 890-5063-1

SDG: Lea County NM

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Soluble DI Leach 59872 Leach 5.02 g 50 mL 08/10/23 15:17 KS **EET MID** 300.0 08/12/23 02:59 Soluble Analysis 5 50 mL 50 mL 60016 SMC **EET MID** 

Client Sample ID: PH04 Lab Sample ID: 890-5063-8

Date Collected: 08/07/23 13:30 Date Received: 08/09/23 08:15

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 02:08	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 23:39	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 03:06	SMC	EET MID

**Client Sample ID: PH05** Lab Sample ID: 890-5063-9

Date Collected: 08/07/23 13:40

**Matrix: Solid** 

Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 02:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 00:01	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 03:13	SMC	EET MID

**Client Sample ID: PH05** Lab Sample ID: 890-5063-10

Date Collected: 08/07/23 13:50 Date Received: 08/09/23 08:15 **Matrix: Solid** 

	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	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 02:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 00:22	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 03:20	SMC	EET MID

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-11

**Client Sample ID: PH06** 

Date Collected: 08/07/23 14:00 Date Received: 08/09/23 08:15

Matrix: Solid

Job ID: 890-5063-1

SDG: Lea County NM

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 04:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 01:05	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 03:28	SMC	EET MID

**Client Sample ID: PH06** Lab Sample ID: 890-5063-12

Date Collected: 08/07/23 14:10

Date Received: 08/09/23 08:15

**Matrix: Solid** 

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.00 g 5 mL 60387 08/16/23 13:37 EL EET MID Total/NA 8021B 5 mL **EET MID** Analysis 1 5 mL 60350 08/17/23 04:31 SM Total/NA Total BTEX 08/17/23 09:52 SM Analysis 60441 **EET MID** 1 Total/NA Analysis 8015 NM 60721 08/21/23 11:32 SM **EET MID** Total/NA 60390 Prep 8015NM Prep 10.02 g 10 mL 08/16/23 15:08 TKC EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 60609 08/20/23 01:26 SM **EET MID** Soluble Leach DI Leach 5.04 g 50 mL 59872 08/10/23 15:17 KS **EET MID** Soluble Analysis 300.0 50 mL 50 mL 60016 08/12/23 03:49 SMC **EET MID** 

**Client Sample ID: PH07** 

Date Collected: 08/07/23 14:20 Date Received: 08/09/23 08:15

Lab Sample ID: 890-5063-13

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 04:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 01:47	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 03:56	SMC	EET MID

**Client Sample ID: PH07** Lab Sample ID: 890-5063-14 Date Collected: 08/07/23 14:30

Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 05:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID

**Eurofins Carlsbad** 

Page 38 of 50

**Matrix: Solid** 

**Matrix: Solid** 

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-14

Matrix: Solid

**Matrix: Solid** 

Job ID: 890-5063-1

SDG: Lea County NM

**Client Sample ID: PH07** 

Date Collected: 08/07/23 14:30 Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 02:08	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 04:18	SMC	EET MID

**Client Sample ID: PH08** Lab Sample ID: 890-5063-15

Date Collected: 08/07/23 14:40 Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 05:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 02:29	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 04:25	SMC	EET MID

**Client Sample ID: PH08** Lab Sample ID: 890-5063-16

Date Collected: 08/07/23 14:50 **Matrix: Solid** Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 05:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 02:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 04:32	SMC	EET MID

Lab Sample ID: 890-5063-17 **Client Sample ID: PH09** 

Date Collected: 08/07/23 15:00 **Matrix: Solid** Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 06:14	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g 1 uL	10 mL 1 uL	60390 60609	08/16/23 15:08 08/20/23 03:11	TKC SM	EET MID EET MID

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5063-17

Matrix: Solid

Job ID: 890-5063-1

SDG: Lea County NM

**Client Sample ID: PH09** Date Collected: 08/07/23 15:00 Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 04:39	SMC	EET MID

**Client Sample ID: PH09** Lab Sample ID: 890-5063-18

Date Collected: 08/07/23 15:10 **Matrix: Solid** 

Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 06:34	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 03:32	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 04:46	SMC	EET MID

**Client Sample ID: PH10** Lab Sample ID: 890-5063-19

Date Collected: 08/07/23 15:20 **Matrix: Solid** Date Received: 08/09/23 08:15

	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	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 06:55	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 03:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 04:54	SMC	EET MID

**Client Sample ID: PH10** Lab Sample ID: 890-5063-20

Date Collected: 08/07/23 15:30 **Matrix: Solid** Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	60387	08/16/23 13:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60350	08/17/23 07:15	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60441	08/17/23 09:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			60721	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	60390	08/16/23 15:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/20/23 04:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	59872	08/10/23 15:17	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60016	08/12/23 05:01	SMC	EET MID

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Laboratory References:

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

Job ID: 890-5063-1 SDG: Lea County NM

# **Accreditation/Certification Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5063-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

#### **Laboratory: Eurofins Midland**

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

Authority	Pre	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-23-26	06-30-24
The following analytes	and the almost and the state of the same			
the agency does not of	' '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	' '	Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

# **Method Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5063-1 SDG: Lea County NM

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

#### **Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

# **Sample Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

:עו מסע	890-506	3-1
SDG: Lea	County	NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5063-1	PH01	Solid	08/07/23 12:20	08/09/23 08:15	0.5
890-5063-2	PH01	Solid	08/07/23 12:30	08/09/23 08:15	4
890-5063-3	PH02	Solid	08/07/23 12:40	08/09/23 08:15	0.5
890-5063-4	PH02	Solid	08/07/23 12:50	08/09/23 08:15	4
890-5063-5	PH03	Solid	08/07/23 13:00	08/09/23 08:15	0.5
890-5063-6	PH03	Solid	08/07/23 13:10	08/09/23 08:15	4
890-5063-7	PH04	Solid	08/07/23 13:20	08/09/23 08:15	0.5
890-5063-8	PH04	Solid	08/07/23 13:30	08/09/23 08:15	4
890-5063-9	PH05	Solid	08/07/23 13:40	08/09/23 08:15	0.5
890-5063-10	PH05	Solid	08/07/23 13:50	08/09/23 08:15	4
890-5063-11	PH06	Solid	08/07/23 14:00	08/09/23 08:15	0.5
890-5063-12	PH06	Solid	08/07/23 14:10	08/09/23 08:15	4
890-5063-13	PH07	Solid	08/07/23 14:20	08/09/23 08:15	0.5
890-5063-14	PH07	Solid	08/07/23 14:30	08/09/23 08:15	4
890-5063-15	PH08	Solid	08/07/23 14:40	08/09/23 08:15	0.5
890-5063-16	PH08	Solid	08/07/23 14:50	08/09/23 08:15	4
890-5063-17	PH09	Solid	08/07/23 15:00	08/09/23 08:15	0.5
890-5063-18	PH09	Solid	08/07/23 15:10	08/09/23 08:15	4
890-5063-19	PH10	Solid	08/07/23 15:20	08/09/23 08:15	0.5
890-5063-20	PH10	Solid	08/07/23 15:30	08/09/23 08:15	4

Relinquished by: (Signature)

Received by: (Signature)

54:23 NS Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020.2

eurofins

Xenco **Environment Testing** 

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

Project Manager:   Erick	Erick Herrera		Bill to: (if different)	đ					Work Order	Work Order Comments
	Etech Environmental & Safety Solutions, Inc.	ty Solutions, Inc.	Company Name	Θ.					Program: UST/PST 🗌 PRP 🗌 Bro	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
	1300 W County Rd 100		Address:						State of Project:	
e ZIP:	Midland, Texas 79711		City, State ZIP:						Reporting: Level II Level III PST/UST	ST/UST TRRP Level IV
	(281)777-4152	Email:	Email: erick@etechenv.com, joseph@etechenv.com	nv.co	m, jos	eph@	etech		Deliverables: EDD	ADaPT Other:
Name:	WEU Federal D Battery		Turn Around					ANALYSIS REQUEST	JEST	Preservative Codes
er:	18342	☑ Rout	Rush	Pres.						None: NO DI Water: H <sub>2</sub> O
Project Location:	Lea County, New Mexico	o Due Date:	5 TAT							Cool: Cool MeOH: Me
Sampler's Name:	Edyte Konan	TAT starts th	TAT starts the day received by			-	.0			
PO#:		the lab, if re	the lab, if received by 4:30pm	rs	3	/D	300			H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub> NaOH: Na
SAMPLE RECEIPT	Temp Blank: Yes	s) No Wet Ice:	(Lyes) No	nete	021	15M	HOD			H <sub>3</sub> PO <sub>4</sub> : HP
Samples Received Intact:		Thermometer ID:	Foamal	ıran	DD 8	D 80	ETI			NaHSO <sub>4</sub> : NABIS
Cooler Custody Seals:	MA	Correction Factor:	6.0	Pa	THO	НОІ	A N			Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ; NaSO <sub>3</sub>
Sample Custody Seals:	Yes No NIA Tem	Temperature Reading:	3.6		ME	MET	- EF			Zn Acetate+NaOH: Zn
Total Containers:	Соп	Corrected Temperature:	3.4	J	EPA	PA	IDE	oad-soos Chain	os chain of custody	NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix	Date Time Sampled Sampled	Depth Grab/	# of	BTEX -	TPH - E	CHLOR			Sample Comments
PH01	s 8.7.	8.7.2023 12:20	0.5' G	_	×	×	×			Incident ID:
PH01	s 8.7.	8.7.2023 12:30	4' G		×	×	×			nAPP2321448004
PH02	s_8.7.	8.7.2023 12:40	0.5' G		×	×	×			
PH02	s 8.7.	8.7.2023 12:50	4' G	_	×	×	×			
PH03	s 8.7.	8.7.2023 13:00	0.5' G	_	×	×	×			
PH03	s 8.7.	8.7.2023 13:10	4' G	_	×	×	×			
PH04	s 8.7.	8.7.2023 13:20	0.5' G	_	×	×	×			
PH04	s 8.7.	8.7.2023 13:30	4' G		×	×	×			
PH05	s 8.7.	8.7.2023 13:40	0.5' G	_	×	×	×			
Total 200.7 / 6010	200.8 / 6020:	8RCRA 13	13PPM Texas 11	1 A	Sp	As Ba	Ве В	Ca Cr Co Cu Fe Pb N	Ph Mg Mn Mo Ni K Se Ag SiO2 I	SiO <sub>2</sub> Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	tal(s) to be analyzed	TCLP /	TCLP / SPLP 6010: 8RCRA	RCRA		Sb As Ba Be		Cd Cr Co Cu Pb Mn Mo Ni	Ni Se Ag TI U Hg: 1631	Hg: 1631 / 245.1 / 7470 / 7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	nt and relinquishment of samp			liant co				lister and subcontractors   tass	nne standard terms and conditions	

Circle Method(s) and Metal(s) to be analyzed

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texas 11 Al

PH09

S S S S S s S S

8.7.2023 8.7.2023

15:10 15:00 14:50 14:40 14:30 14:20 14:10 14:00 13:50

4 0.5 4 0.5 4 0.5 4 0.5 Ą

ດ G G ດ G ດ G G ြ

× ×

×

×

×

× × × × × ×

×

×

× × ×

×

PH08 **PH08** 

8.7.2023 8.7.2023 8.7.2023 8.7.2023

PH07 PH07 PH06

totice: 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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se

Ag SiO<sub>2</sub> Na Sr

TI Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

eurofins Xenco **Environment Testing** 

Phone:

City, State ZIP:

Address: Company Name:

1300 W County Rd 100

Address: Company Name:

City, State ZIP:

Bill to: (if different)

Midland, Texas 79711 (281)777-4152

Etech Environmental & Safety Solutions, Inc.

Project Manager:

Erick Herrera

Samples Received Intact: SAMPLE RECEIPT

Temp Blank: Yes

Yes No

Wet Ice:

Yes N O

**Parameters** 

N<sub>O</sub> Z

Thermometer ID: Correction Factor:

Cooler Custody Seals: Sample Custody Seals:

Yes Yes

No. o

N/A Temperature Reading!

**BTEX - EPA METHOD 8021B** 

TPH - EPA METHOD 8015M/D

CHLORIDE - EPA METHOD 300.0

Corrected Temperature:

Sample Identification

Matrix

Sampled

Sampled

Time

Depth

Comp Grab/

Cont # of

Date

PH06

8.7.2023

8.7.2023

8.7.2023

PH05

PO #:

Sampler's Name:

Project Location:

Lea County, New Mexico

Due Date:

5 TAT

TAT starts the day received by the lab, if received by 4:30pm

☑ Routine

Rush

Code

**Turn Around** 

Email: erick@etechenv.com,

, joseph

ANALYSIS REQUEST

**Preservative Codes** 

Edyte Konan

Project Number:

Project Name:

WEU Federal D Battery

18342

# Chain of Custody

Midland, TX (432) 704-54 EL Paso, TX (915) 585-Hobbs, NM (575) 392-79 Houston, TX (281) 240

-4200, Dallas, TX (214) 902-0300	
40, San Antonio, TX (210) 509-3334	Work Order No:
3443, Lubbock, TX (806) 794-1296	
550, Carlsbad, NM (575) 988-3199	
	www.xenco.com <sup>2</sup> age 2 of 3
	Work Order Comments
	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
	State of Project:
	Reporting: Level II Devel III DST/UST DTRRP Devel IV
@etechenv.com	Deliverables: EDD ☐ ADaPT ☐ Other:

		o			
		4			40
		2	0.4.23 8/52	( Res Cut.	- Kuth
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)

NaOH+Ascorbic Acid: SAPC

Sample Comments

nAPP2321448004 Incident ID: Zn Acetate+NaOH: Zn Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>: NaSO<sub>3</sub> NaHSO<sub>4</sub>: NABIS H3PO4: HP H<sub>2</sub>S0<sub>4</sub>: H<sub>2</sub>

NaOH: Na HNO3: HN

HCL: HC Cool: Coo None: NO

> МеОН: Ме DI Water: H<sub>2</sub>O

Circle Method(s) and Metal(s) to be analyzed

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texas 11 Al

8

As Ba

Ве

В С

Ca Cr

၀

Cu Fe Pb Mg Mn Mo Ni K

Se

Ag SiO<sub>2</sub> Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471

Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

TCLP / SPLP 6010: 8RCRA

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco,

eurofins **Environment Testing** 

Phone:

City, State ZIP:

Midland, Texas 79711 (281)777-4152

1300 W County Rd 100

Project Name:

WEU Federal D Battery

Email: erick@etechenv.com,

joseph@etect

ANALYSIS REQUEST

None: NO

**Preservative Codes** 

Cool: Cool

HNO3: HN MeOH: Me DI Water: H<sub>2</sub>O

NaOH: Na

City, State ZIP:

**Turn Around** 

Rush

Pres.

Project Manager:

Erick Herrera

Company Name:

Etech Environmental & Safety Solutions, Inc.

Company Name Bill to: (if different)

Cooler Custody Seals:

Sample Custody Seals:

Yes Yes (Yes) emp Blank:

No Vo

Corrected Temperature: Temperature Reading: Correction Factor:

Sample Identification

Matrix

Sampled

Sampled

Date

Time

Depth

Comp Grab/

Cont # Of

ດ

PH10 PH10

S S

8.7.2023 8.7.2023

15:30 15:20

> 4 0.5

G

×

Samples Received Intact:

N<sub>o</sub>

Thermometer ID:

DWON

10:00

**BTEX - EPA METHOD 8021B** 

TPH - EPA METHOD 8015M/D

CHLORIDE - EPA METHOD 300.0

(Yes) No

Wet ice:

Yes No

**Parameters** 

Z N/A

SAMPLE RECEIPT

Sampler's Name: Project Location: Project Number:

Lea County, New Mexico

Due Date: ✓ Routine

5 TAT

TAT starts the day received by the lab, if received by 4:30pm

Edyte Konan

# Chain of Custody

Midland, TX (432) 704-5440, San A EL Paso, TX (915) 585-3443, Lub Hobbs, NM (575) 392-7550, Carls Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

ntonio, TX (210) 509-3334	Work Order No:
bock, TX (806) 794-1296	
bad, NM (575) 988-3199	,
	www.xenco.com Page 3 of 3
	Work Order Comments
	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
	State of Project:
	Reporting: Level III Devel III PST/UST TRRP Level IV
env.com	Deliverables: EDD ADaPT Other:

		6			
		4			<
		2	8-9-238152	The Cal	教
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	A Received by: (Signature)	Relinquished by: (Signature)

NaOH+Ascorbic Acid: SAPC Zn Acetate+NaOH: Zn Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>: NaSO<sub>3</sub>

Sample Comments

nAPP2321448004 Incident ID: NaHSO<sub>4</sub>: NABIS H<sub>3</sub>PO<sub>4</sub>: HP H2S04: H2 HCL: HC

**Eurofins Carlsbad** 1089 N Canal St

# Chain of Custody Record

💸 eurofins

Environment Testing

PH04 (890-5063-8) PH04 (890-5063-7) PH03 (890-5063-5) Midland State Zip TX, 79701 Deliverable Requested I II III IV Other (specify) Vote: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central. LLC PH05 (890-5063-9) PH03 (890-5063-6) PH02 (890-5063-4) PH02 (890-5063-3) PH01 (890-5063-2) PH01 (890-5063-1) Project Name: WEU Federal D Battery ≝mpty Kit Relinqµished by ossible Hazard Identification Sample Identification - Client ID (Lab ID) 432-704-5440(Tel) 1211 W Florida Ave Eurofins Environment Testing South Centr Carlsbad NM 88220 Phone: 575-988-3199 Fax. 575-988-3199 elinquished by elinquished by Custody Seals Intact. inquished by: nipping/Receiving lient Information Yes 8 E (Sub Contract Lab) Custody Seal No Date/Time Primary Deliverable Rank 2 Project #: 88000073 Jate/Time Due Date Requested 8/15/2023 TAT Requested (days) Phone Sample SOW# Sample Date 8/7/23 8/7/23 8/7/23 8/7/23 8/7/23 8/7/23 8/7/23 8/7/23 8/7/23 Mountain 13 40 Date Mountain 12 40 Mountain 13 10 Mountain 13 00 Mountain 12 50 Mountain 13 30 Mountain 13 20 Mountain 12 30 Mountain Sample Time 12 20 (C=comp, G=grab) Sample Туре Preservation Code: Company Company Matrix Solid Solid Solid Solid Solid Solid Solid Solid Solid Kramer Jessica Jessica Kramer@et.eurofinsus com Field Filtered Sample (Yes or No) Accreditations Required (See note).
NELAP - Louisiana, NELAP - Texas Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Special Instructions/QC Requirement Perform MS/MSD (Yes or No) Received by: Cooler Temperature(s) °C and Other Remarks × × × × × × × × × 8015MOD\_NM/8015NM\_S\_Prep Full TPH Return To Client × × × × × × × × × 8015MOD\_Calc × × × × × 800\_ORGFM\_28D/DI\_LEACH Chloride ×  $\times$ × × × × × × × 8021B/5035FP Calc Mid - BTEX Analysis Requested × Total\_BTEX\_GCV × × × × × × × Disposal By Lab State of Origin: New Mexico Date/Time Date/Time Date/Time  $\perp \times$ Total Number of containers A HCL
B. NaOH
C Zn Acetate
D Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid
I loe
J DI Water
K EDTA
L EDA 890-5063-1 Preservation Page: Page 1 of 3 COC No: 890-1419 1 Special Instructions/Note N None
O - AskAO2
P Na2O4S
P Na2SO3
R Na2SO3
R Na2SO3
S H2SO4
I TSP Dodecahydrate
U Acetone
V-MCAA
W pH 4-5 Ver: 06/08/2021 Company Company Months

# **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5063-1 SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 5063 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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

4

2

4

<u>ی</u>

8

10

12

13

14

#### **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5063-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 08/10/23 12:57 PM

Login Number: 5063 List Number: 2

Creator: Rodriguez, 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	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Released to Imaging: 12/22/2023 9:08:07 AM

**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Erick Herrera Etech Environmental & Safety Solutions PO BOX 62228 Midland, Texas 79711

Generated 9/14/2023 10:44:54 AM Revision 1

# **JOB DESCRIPTION**

WEU Federal D Battery SDG NUMBER Lea County NM

# **JOB NUMBER**

890-5058-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



# **Eurofins Carlsbad**

# **Job Notes**

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

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

# **Authorization**

Generated 9/14/2023 10:44:54 AM Revision 1

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery Laboratory Job ID: 890-5058-1 SDG: Lea County NM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Racaint Chacklists	19

3

4

6

<u>'</u>

9

11

114

# **Definitions/Glossary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5058-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DΙ

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

**TEF** Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### Case Narrative

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1

SDG: Lea County NM

Job ID: 890-5058-1

**Laboratory: Eurofins Carlsbad** 

**Narrative** 

Job Narrative 890-5058-1

#### REVISION

The report being provided is a revision of the original report sent on 8/21/2023. The report (revision 1) is being revised due to Extra COCs in final report, revision needed.

#### Receipt

The sample was received on 8/9/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

#### **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: PH03 (890-5058-1).

#### **GC VOA**

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

#### GC Semi VOA

Method 8015MOD NM: The surrogate recovery for the blank associated with preparation batch 880-60389 and analytical batch 880-60609 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60609/21), (CCV 880-60609/6) and (LCS 880-60389/2-A). Evidence of matrix interferences is not obvious.

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

#### HPLC/IC

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

**Matrix: Solid** 

# **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5058-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

**Client Sample ID: PH03** Lab Sample ID: 890-5058-1 Date Collected: 08/07/23 13:15

Date Received: 08/09/23 08:15

Sample Depth: 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00198	U	0.00198		mg/Kg		08/18/23 09:22	08/19/23 03:05	
Toluene	<0.00198	U	0.00198		mg/Kg		08/18/23 09:22	08/19/23 03:05	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/18/23 09:22	08/19/23 03:05	
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		08/18/23 09:22	08/19/23 03:05	
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/18/23 09:22	08/19/23 03:05	
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		08/18/23 09:22	08/19/23 03:05	•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	99		70 - 130				08/18/23 09:22	08/19/23 03:05	-
1,4-Difluorobenzene (Surr)	93		70 - 130				08/18/23 09:22	08/19/23 03:05	
Method: TAL SOP Total BTEX	- Total BTE	X Calculat	ion						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00396	U	0.00396		mg/Kg			08/21/23 11:16	•
Method: SW846 8015 NM - Did	esel Range	Organics (	DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.5	U	50.5		mg/Kg			08/21/23 11:32	
Method: SW846 8015B NM - D								00/2 //20 11:02	
	Diesel Range	<b>Organics</b>	(DRO) (GC)					00,2 1,20 11102	
Analyte	_	Organics Qualifier	(DRO) (GC) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	_	Qualifier		MDL	Unit mg/Kg	<u>D</u>	Prepared 08/16/23 14:53		
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U	RL	MDL		<u>D</u>	08/16/23 14:53	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<b>Result</b> <50.5	Qualifier U	RL 50.5	MDL	mg/Kg	<u>D</u>	08/16/23 14:53 08/16/23 14:53	Analyzed 08/19/23 12:05	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.5 <50.5	Qualifier U U U	50.5 50.5	MDL	mg/Kg	<u>D</u>	08/16/23 14:53 08/16/23 14:53	Analyzed 08/19/23 12:05 08/19/23 12:05	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result <50.5 <50.5 <50.5	Qualifier U U U	FRL 50.5 50.5 50.5	MDL	mg/Kg	<u>D</u>	08/16/23 14:53 08/16/23 14:53 08/16/23 14:53	Analyzed 08/19/23 12:05 08/19/23 12:05 08/19/23 12:05	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <50.5   <50.5   <50.5   <50.5	Qualifier U U U	50.5 50.5 50.5 <i>Limits</i>	MDL	mg/Kg	<u>D</u>	08/16/23 14:53 08/16/23 14:53 08/16/23 14:53 <b>Prepared</b> 08/16/23 14:53	Analyzed 08/19/23 12:05 08/19/23 12:05 08/19/23 12:05 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions,	Result   <50.5   <50.5   <50.5	Qualifier U U Qualifier	RL 50.5 50.5 50.5 <b>Limits</b> 70 - 130 70 - 130	MDL	mg/Kg	<u>D</u>	08/16/23 14:53 08/16/23 14:53 08/16/23 14:53 <b>Prepared</b> 08/16/23 14:53	Analyzed 08/19/23 12:05 08/19/23 12:05 08/19/23 12:05  Analyzed 08/19/23 12:05	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U U Qualifier	RL 50.5 50.5 50.5 <b>Limits</b> 70 - 130 70 - 130		mg/Kg	<u>D</u>	08/16/23 14:53 08/16/23 14:53 08/16/23 14:53 <b>Prepared</b> 08/16/23 14:53	Analyzed 08/19/23 12:05 08/19/23 12:05 08/19/23 12:05  Analyzed 08/19/23 12:05	Dil Fac

# **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

**Matrix: Solid Prep Type: Total/NA** 

			Percent Surrogate Recovery (Acceptance Limits)							
		BFB1	DFBZ1							
Lab Sample ID	Client Sample ID	(70-130)	(70-130)							
890-5057-A-1-D MS	Matrix Spike	120	95							
890-5057-A-1-E MSD	Matrix Spike Duplicate	106	101							
890-5058-1	PH03	99	93							
LCS 880-60548/1-A	Lab Control Sample	121	97							
LCSD 880-60548/2-A	Lab Control Sample Dup	104	90							
MB 880-60474/5-A	Method Blank	102	119							
MB 880-60548/5-A	Method Blank	105	106							

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

**Matrix: Solid** Prep Type: Total/NA

			Percen	t Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-31775-A-1-D MS	Matrix Spike	104	79	
880-31775-A-1-E MSD	Matrix Spike Duplicate	105	78	
890-5058-1	PH03	122	105	
LCS 880-60389/2-A	Lab Control Sample	131 S1+	120	
LCSD 880-60389/3-A	Lab Control Sample Dup	130	113	
MB 880-60389/1-A	Method Blank	156 S1+	145 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Etech Environmental & Safety Solutions

Job ID: 890-5058-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: MB 880-60474/5-A

**Matrix: Solid** 

Matrix: Solid

**Analysis Batch: 60526** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 60474

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	
Toluene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	

MB MB

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1.4-Difluorobenzene (Surr)	119	70 - 130

08/17/23 13:33 08/18/23 12:08 **Client Sample ID: Method Blank** 

<u>08/17/23 13:33</u> <u>08/18/23 12:08</u>

Analyzed

Prepared

**Prep Type: Total/NA** 

Prep Batch: 60548

**Analysis Batch: 60526** 

Lab Sample ID: MB 880-60548/5-A

MD MD

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
o-Xylene	< 0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105	70 - 130	08/18/23 09:22	08/19/23 02:16	1
1,4-Difluorobenzene (Surr)	106	70 - 130	08/18/23 09:22	08/19/23 02:16	1

Lab Sample ID: LCS 880-60548/1-A

**Matrix: Solid** 

**Analysis Batch: 60526** 

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

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

Prep Batch: 60548

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1225		mg/Kg		123	70 - 130	
Toluene	0.100	0.1073		mg/Kg		107	70 - 130	
Ethylbenzene	0.100	0.1199		mg/Kg		120	70 - 130	
m-Xylene & p-Xylene	0.200	0.2283		mg/Kg		114	70 - 130	
o-Xylene	0.100	0.09771		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	r Limits
4-Bromofluorobenzene (Surr)	121	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-60548/2-A

Matrix: Solid							Prep Ty	pe: Tot	al/NA
Analysis Batch: 60526							Prep E	Batch: (	60548
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1169		mg/Kg		117	70 - 130	5	35

**Eurofins Carlsbad** 

1

Dil Fac

# QC Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1 SDG: Lea County NM

Lab Sample ID: LCSD 880-60548/2-A

**Matrix: Solid** 

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

Prep Type: Total/NA Prep Batch: 60548

**Analysis Batch: 60526** 

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.1062		mg/Kg		106	70 - 130	1	35
Ethylbenzene	0.100	0.1139		mg/Kg		114	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2143		mg/Kg		107	70 - 130	6	35
o-Xylene	0.100	0.09471		mg/Kg		95	70 - 130	3	35

LCSD LCSD

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

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA Prep Batch: 60548

**Matrix: Solid** 

**Analysis Batch: 60526** 

Lab Sample ID: 890-5057-A-1-D MS

-	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0996	0.1229		mg/Kg		123	70 - 130	
Toluene	< 0.00199	U	0.0996	0.1054		mg/Kg		105	70 - 130	
Ethylbenzene	< 0.00199	U	0.0996	0.1206		mg/Kg		121	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2210		mg/Kg		111	70 - 130	
o-Xylene	< 0.00199	U	0.0996	0.09354		mg/Kg		94	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-5057-A-1-E MSD

**Matrix: Solid** 

**Analysis Batch: 60526** 

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 60548

											, , , , ,
_	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.101	0.1286		mg/Kg		128	70 - 130	5	35
Toluene	<0.00199	U	0.101	0.1117		mg/Kg		110	70 - 130	6	35
Ethylbenzene	<0.00199	U	0.101	0.1155		mg/Kg		115	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2033		mg/Kg		101	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.09153		mg/Kg		91	70 - 130	2	35

MSD MSD

Surrogate	%Recovery Qualifi	ier Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

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

Lab Sample ID: MB 880-60389/1-A

**Matrix: Solid** 

**Analysis Batch: 60609** 

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

Prep Batch: 60389

MB MB Result Qualifier RL MDL Unit Analyte Prepared Analyzed Gasoline Range Organics <50.0 U 50.0 mg/Kg 08/16/23 14:52 08/19/23 07:38

(GRO)-C6-C10

# QC Sample Results

Client: Etech Environmental & Safety Solutions

Job ID: 890-5058-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: MB 880-60389/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 60609** Prep Batch: 60389

7 many one Date m Cooce								op Batom	
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/16/23 14:52	08/19/23 07:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/16/23 14:52	08/19/23 07:38	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130				08/16/23 14:52	08/19/23 07:38	1
o-Terphenyl	145	S1+	70 - 130				08/16/23 14:52	08/19/23 07:38	1

Lab Sample ID: LCS 880-60389/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 60609** Prep Batch: 60389 LCS LCS Spike %Rec Added Result Qualifier Limits Analyte Unit %Rec Gasoline Range Organics 1000 1041 mg/Kg 104 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1099 110 70 - 130 mg/Kg C10-C28) LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane S1+ 70 - 130 131 70 - 130 o-Terphenyl 120

Lab Sample ID: LCSD 880-60389/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 60609** Prep Batch: 60389 Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics 1000 962.4 mg/Kg 96 70 - 130 8 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 953.3 mg/Kg 95 70 - 13014 20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	130		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-31775-A-1-D MS **Client Sample ID: Matrix Spike Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 60609** Prep Batch: 60389 Spike MS MS %Rec Sample Sample **Analyte** Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.2 U 998 1166 113 70 - 130 mg/Kg (GRO)-C6-C10 <50.2 U 998 968.0 70 - 130 Diesel Range Organics (Over mg/Kg C10-C28) MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 104 70 - 130 79 70 - 130 o-Terphenyl

**Eurofins Carlsbad** 

C10-C28)

## QC Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1

SDG: Lea County NM

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

Lab Sample ID: 880-31775-A-1-E MSD

**Matrix: Solid** 

**Analysis Batch: 60609** 

**Client Sample ID: Matrix Spike Duplicate** 

**Client Sample ID: Lab Control Sample** 

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

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Client Sample ID: PH03** 

**Client Sample ID: PH03** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Total/NA** 

Prep Batch: 60389

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.2	U	998	1174		mg/Kg		113	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.2	U	998	956.5		mg/Kg		96	70 - 130	1	20

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	78		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59870/1-A **Client Sample ID: Method Blank Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

MB MB

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			08/11/23 13:35	1

Lab Sample ID: LCS 880-59870/2-A

**Matrix: Solid** 

**Analysis Batch: 59955** 

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Chloride	250	262.6	mg/k		105	90 - 110	

Lab Sample ID: LCSD 880-59870/3-A

**Matrix: Solid** 

**Analysis Batch: 59955** 

-	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	261.0		ma/Ka		104	90 - 110		20	

Lab Sample ID: 890-5058-1 MS

**Matrix: Solid** 

**Analysis Batch: 59955** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	195		249	439.3		ma/Ka		98	90 - 110	

Lab Sample ID: 890-5058-1 MSD

Released to Imaging: 12/22/2023 9:08:07 AM

**Matrix: Solid** 

Analysis Batch: 59955

Alialysis Dalcil. 53355											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	195		249	439.8		mg/Kg		98	90 - 110	0	20

# **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1 SDG: Lea County NM

# **GC VOA**

#### Prep Batch: 60474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60474/5-A	Method Blank	Total/NA	Solid	5035	

#### **Analysis Batch: 60526**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Total/NA	Solid	8021B	60548
MB 880-60474/5-A	Method Blank	Total/NA	Solid	8021B	60474
MB 880-60548/5-A	Method Blank	Total/NA	Solid	8021B	60548
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	8021B	60548
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60548
890-5057-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	60548
890-5057-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60548

#### Prep Batch: 60548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Total/NA	Solid	5035	
MB 880-60548/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5057-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-5057-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### **Analysis Batch: 60707**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

#### Prep Batch: 60389

<b>Lab Sample ID</b> 890-5058-1	Client Sample ID PH03	Prep Type Total/NA	Matrix Solid	Method Prep Bat 8015NM Prep	tch
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 60609**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Total/NA	Solid	8015B NM	60389
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015B NM	60389
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60389
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60389
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	60389
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	60389

#### **Analysis Batch: 60716**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Total/NA	Solid	8015 NM	

# **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5058-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

# HPLC/IC

#### Leach Batch: 59870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Soluble	Solid	DI Leach	
MB 880-59870/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5058-1 MS	PH03	Soluble	Solid	DI Leach	
890-5058-1 MSD	PH03	Soluble	Solid	DI Leach	

#### **Analysis Batch: 59955**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5058-1	PH03	Soluble	Solid	300.0	59870
MB 880-59870/1-A	Method Blank	Soluble	Solid	300.0	59870
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	300.0	59870
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59870
890-5058-1 MS	PH03	Soluble	Solid	300.0	59870
890-5058-1 MSD	PH03	Soluble	Solid	300.0	59870

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1

SDG: Lea County NM

Client Sample ID: PH03

Date Collected: 08/07/23 13:15 Date Received: 08/09/23 08:15 Lab Sample ID: 890-5058-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	60548	08/18/23 09:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60526	08/19/23 03:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60707	08/21/23 11:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60716	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	60389	08/16/23 14:53	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 12:05	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	59870	08/10/23 14:28	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59955	08/11/23 16:08	SMC	EET MID

#### **Laboratory References:**

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

8

9

10

12

13

14

# **Accreditation/Certification Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5058-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

# **Laboratory: Eurofins Midland**

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

Authority	ty Program		Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-23-26	06-30-24	
The following analyte	s are included in this rend	ort but the laboratory is r	not certified by the governing authority.	This list may include analytee for u	
the agency does not	•	ort, but the laboratory is i	lot certified by the governing authority.	This list may include analytes for w	
	•	Matrix	Analyte	This list may include analytes for w	
the agency does not	offer certification.	•	, , ,	This list may include analytes for w	

# **Method Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1

SDG: Lea County NM

-	

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

#### **Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### **Laboratory References:**

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

# **Sample Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5058-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5058-1	PH03	Solid	08/07/23 13:15	08/09/23 08:15	6

eurofins

Xenco

**Environment Testing** 

Phone:

City, State ZIP:

Midland, Texas 79711 (281)777-4152

Email: erick@etechenv.com,

joseph@etechenv.com

ANALYSIS REQUEST

HCL: HC Cool: Cool

None: NO

DI Water: H<sub>2</sub>O MeOH: Me

**Preservative Codes** 

NaOH: Na HNO3: HN City, State ZIP: Address:

**Turn Around** 

Rush

Code

1300 W County Rd 100

Project Manager:

Erick Herrera

Etech Environmental & Safety Solutions, Inc.

Company Name: Bill to: (if different)

Company Name:

Project Name:

WEU Federal D Battery

Project Number:

Sampler's Name: Project Location:

Lea County, New Mexico

Due Date: ☑ Routine

5 TAT

Edyte Konan

the lab, if received by 4:30pm TAT starts the day received by

13 14

# Chain of Custody

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

Work Order No:

www.xenc	www.xenco.com age_	age_		of	
Work (	<b>Work Order Comments</b>	ment	5		
Program: UST/PST 🗌 PRP 🗌 Brownfields 🗌 RRC 📗 Superfund 📗	Brownfie	lds 🗌	RRC [	Super	fund []
State of Project:					
Reporting: Level III Devel III DST/UST DTRRP Devel IV	□PST/US	<del>-</del> -	RRP	Leve	₹ □
Deliverables: EDD	ADaPT 🗆		Other:		

Revised Date 08/25/2020 Rev 2020/2											
			6								
							10		7		7 6 11
			るから	0	1		1	100	+		Kut
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	ime	Date/Time		ure)	Received by: (Signature)	Receive		inature)	Relinquished by: (Signature)
	tractors. It assigns standard terms and conditions losses are due to circumstances beyond the control ess terms will be enforced unless previously negotiated.	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	urofins Xenco, its expenses incurre o Eurofins Xenco	ompany to E ny losses or o submitted t	om client o ibility for a ach sampl	hase order from the control of the c	tutes a valid pure shall not assume roject and a cha	samples const of samples and pplied to each p	uishment of for the cost .00 will be a	nt and reling e liable only harge of \$85	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcon 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 of Eurofins Xenco, will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. The
g SiO <sub>2</sub> Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471	Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Tl Sn U V Zn o Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631/245.1/7470/7471	Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Ba Be B C Ba Be Cd	N Sb As A Sb As	as 11 / 8RCR	CRA 13PPM Texas 11 AI	8RCRA 13PPM Texas 11 Al Sb As Ba TCLP/SPLP 6010: 8RCRA Sb As Ba		6020: be analyz	200.8 / 6020: etal(s) to be and	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed
Sample Comments			TPH -	로 및 BTEX	Grab/ # of	Depth C	Time Sampled	Date Sampled	Matrix	tion	Sample Identification
NaCi Tracciona Con	200				+	2:0	emperature:	Corrected Temperature:			Fotal Containers:
VIDON ACGUSTANTIA	-	890-0000	-	A M	Т.	30.6	e Reading:	Temperature Reading:	NA	Yes No	Sample Custody Seals:
Na <sub>2</sub> O <sub>2</sub> O <sub>3</sub> . Na <sub>2</sub> O <sub>3</sub>		SON SONS Chain of Custody		ETH	L	0.0	actor:	Correction Factor:	0	Yes No	Cooler Custody Seals:
Na S O : NaSO	Z Z			OD		LW COL	-	Thermometer ID:	No	(Ves	Samples Received Intact:
H <sub>3</sub> PO <sub>4</sub> ; HP	H <sub>3</sub> P			8021	mete	Yes No	Wet ice:	(Yes No	Temp Blank:	Терпр	SAMPLE RECEIPT
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na	H <sub>2</sub> S		-	В		1 4:30 A 4:30	the lab, if received by 4:30pm	}			PO#:
			.0	_	y	ody received	I AT Starts the day received by		Eulie Vollail	Luy	Camper Silvanie.

# **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5058-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad Login Number: 5058

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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5058-1 SDG Number: Lea County NM

**List Source: Eurofins Midland** 

List Creation: 08/10/23 12:57 PM

Login Number: 5058 List Number: 2

Creator: Rodriguez, 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 <6mm (1/4").	N/A	

**Eurofins Carlsbad** 

Released to Imaging: 12/22/2023 9:08:07 AM

**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Erick Herrera
Etech Environmental & Safety Solutions
PO BOX 62228

Midland, Texas 79711

Generated 8/21/2023 11:38:48 AM

# **JOB DESCRIPTION**

WEU Federal D Battery SDG NUMBER Lea County NM

# **JOB NUMBER**

890-5057-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



# **Eurofins Carlsbad**

## **Job Notes**

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

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

## **Authorization**

Generated 8/21/2023 11:38:48 AM

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

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery Laboratory Job ID: 890-5057-1 SDG: Lea County NM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receint Checklists	20

## **Definitions/Glossary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1 SDG: Lea County NM

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

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

NFG Negative / Absent POS Positive / Present PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

## Case Narrative

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1 SDG: Lea County NM

Job ID: 890-5057-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-5057-1

### Receipt

The sample was received on 8/9/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

## **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: PH04 (890-5057-1).

### **GC VOA**

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

### GC Semi VOA

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-60389 and analytical batch 880-60609 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60609/21), (CCV 880-60609/6) and (LCS 880-60389/2-A). Evidence of matrix interferences is not obvious.

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

### HPLC/IC

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

2

3

4

\_

7

ŏ

10

4.6

13

114

## **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1 SDG: Lea County NM

Lab Sample ID: 890-5057-1

Matrix: Solid

**Client Sample ID: PH04** Date Collected: 08/07/23 13:35 Date Received: 08/09/23 08:15

Sample Depth: 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199		mg/Kg		08/18/23 09:22	08/19/23 02:45	
Toluene	< 0.00199	U	0.00199		mg/Kg		08/18/23 09:22	08/19/23 02:45	
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		08/18/23 09:22	08/19/23 02:45	
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/18/23 09:22	08/19/23 02:45	
o-Xylene	< 0.00199	U	0.00199		mg/Kg		08/18/23 09:22	08/19/23 02:45	
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/18/23 09:22	08/19/23 02:45	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	97		70 - 130				08/18/23 09:22	08/19/23 02:45	
1,4-Difluorobenzene (Surr)	85		70 - 130				08/18/23 09:22	08/19/23 02:45	
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/21/23 11:16	•
Method: SW846 8015 NM - Diese			•						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.4	U	50.4		mg/Kg			08/21/23 11:32	•
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		08/16/23 14:53	08/19/23 11:44	•
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		08/16/23 14:53	08/19/23 11:44	,
Oll Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		08/16/23 14:53	08/19/23 11:44	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	115		70 - 130				08/16/23 14:53	08/19/23 11:44	
o-Terphenyl	99		70 - 130				08/16/23 14:53	08/19/23 11:44	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	284		5.00		mg/Kg			08/11/23 15:59	

DFBZ = 1,4-Difluorobenzene (Surr)

# **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1

SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-5057-1	PH04	97	85	
890-5057-1 MS	PH04	120	95	
890-5057-1 MSD	PH04	106	101	
LCS 880-60548/1-A	Lab Control Sample	121	97	
LCSD 880-60548/2-A	Lab Control Sample Dup	104	90	
MB 880-60474/5-A	Method Blank	102	119	
MB 880-60548/5-A	Method Blank	105	106	
Surrogate Legend				

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

Prep Type: Total/NA **Matrix: Solid** 

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-31775-A-1-D MS	Matrix Spike	104	79	
880-31775-A-1-E MSD	Matrix Spike Duplicate	105	78	
890-5057-1	PH04	115	99	
LCS 880-60389/2-A	Lab Control Sample	131 S1+	120	
LCSD 880-60389/3-A	Lab Control Sample Dup	130	113	
MB 880-60389/1-A	Method Blank	156 S1+	145 S1+	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Etech Environmental & Safety Solutions

Job ID: 890-5057-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60474/5-A

Analysis Batch: 60526

**Matrix: Solid** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60474

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	08/17/23 13:33	08/18/23 12:08	1
1,4-Difluorobenzene (Surr)	119		70 - 130	08/17/23 13:33	08/18/23 12:08	1

Lab Sample ID: MB 880-60548/5-A

Client Sample ID: Method Blank

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 60526 Prep Batch: 60548 MR MR

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	08/18/23 09:22	08/19/23 02:16	1
1,4-Difluorobenzene (Surr)	106		70 - 130	08/18/23 09:22	08/19/23 02:16	1

Lab Sample ID: LCS 880-60548/1-A

**Matrix: Solid** 

**Analysis Batch: 60526** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 60548

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.1225 mg/Kg 123 70 - 130 Toluene 0.100 0.1073 mg/Kg 107 70 - 130 Ethylbenzene 0.100 0.1199 mg/Kg 120 70 - 130 0.200 m-Xylene & p-Xylene 0.2283 mg/Kg 114 70 - 130 0.100 0.09771 70 - 130 o-Xylene mg/Kg 98

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	121	70 - 130
1.4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-60548/2-A

Matrix: Solid

**Analysis Batch: 60526** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 60548

	<b>Бріке</b>	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1169	mg/Kg		117	70 - 130	5	35	

Client: Etech Environmental & Safety Solutions

Job ID: 890-5057-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Spike

Added

0.100

0.100

0.200

0.100

LCSD LCSD

Qualifier

mg/Kg

mg/Kg

Result

0.1062

0.1139

0.2143

0.09471

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

Lab Sample ID: LCSD 880-60548/2-A

**Matrix: Solid** 

Analyte

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 60526

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 60548

6

3

%Rec **RPD** Unit %Rec Limits **RPD** Limit D 35 mg/Kg 106 70 - 130mg/Kg 114 70 - 130 5 35

70 - 130

70 - 130

107

95

LCSD LCSD

Qualifier Limits Surrogate %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 104 1,4-Difluorobenzene (Surr) 90 70 - 130

Lab Sample ID: 890-5057-1 MS

**Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: PH04 Prep Type: Total/NA

Prep Batch: 60548

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0996	0.1229		mg/Kg		123	70 - 130	
Toluene	<0.00199	U	0.0996	0.1054		mg/Kg		105	70 - 130	
Ethylbenzene	<0.00199	U	0.0996	0.1206		mg/Kg		121	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2210		mg/Kg		111	70 - 130	
o-Xylene	< 0.00199	U	0.0996	0.09354		mg/Kg		94	70 - 130	

MS MS

Qualifier %Recovery Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 120 1,4-Difluorobenzene (Surr) 95 70 - 130

Lab Sample ID: 890-5057-1 MSD

**Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: PH04

Prep Type: Total/NA

Prep Batch: 60548

Sample Sample MSD MSD %Rec RPD Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00199 U 0.101 0.1286 mg/Kg 128 70 - 130 5 35 Toluene <0.00199 U 0.101 0.1117 mg/Kg 110 70 - 130 6 35 Ethylbenzene < 0.00199 0.101 0.1155 mg/Kg 115 70 - 130 35 0.202 m-Xylene & p-Xylene <0.00398 U 0.2033 mg/Kg 101 70 - 1308 35 o-Xylene <0.00199 U 0.101 0.09153 mg/Kg 70 - 130 35

> MSD MSD

Qualifier Limits Surrogate %Recovery 4-Bromofluorobenzene (Surr) 106 70 - 130 1,4-Difluorobenzene (Surr) 101 70 - 130

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

Lab Sample ID: MB 880-60389/1-A

**Matrix: Solid** 

**Analysis Batch: 60609** 

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

Prep Batch: 60389

MB MB Analyte Result Qualifier RL MDL Unit Prepared Dil Fac <50.0 Ū 50.0 08/16/23 14:52 08/19/23 07:38 Gasoline Range Organics mg/Kg (GRO)-C6-C10

**Eurofins Carlsbad** 

35

35

Client: Etech Environmental & Safety Solutions

Job ID: 890-5057-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: MB 880-60389/1-A	
Matrix: Solid	

**Analysis Batch: 60609** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60389

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		08/16/23 14:52	08/19/23 07:38	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/16/23 14:52	08/19/23 07:38	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130	08/16/23 14:52	08/19/23 07:38	1
o-Terphenyl	145	S1+	70 - 130	08/16/23 14:52	08/19/23 07:38	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-60389/2-A Matrix: Solid Prep Type: Total/NA

Analysis Batch: 60609 Prep Batch: 60389

6Rec
imits
0 - 130
0 - 130
0

LCS LCS

ICED ICED

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-60389/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 60609		Prep Batch: 60							
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	962.4		mg/Kg		96	70 - 130	8	20
Diesel Range Organics (Over	1000	953.3		mg/Kg		95	70 - 130	14	20

C10-C28)

	LC3D	LUJD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	130		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-31775-A-1-D MS Client Sample ID: Matrix Spike

Matrix: Solid

(GRO)-C6-C10

Analysis Batch: 60609									Prep	Batch: 60389
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.2	U	998	1166		mg/Kg		113	70 - 130	

968.0

mg/Kg

998

<50.2 U Diesel Range Organics (Over C10-C28)

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	79		70 - 130

**Eurofins Carlsbad** 

Prep Type: Total/NA

70 - 130

Client: Etech Environmental & Safety Solutions

Job ID: 890-5057-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: 880-31775-A-1-E MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Prep Type: Total/NA Analysis Batch: 60609 Prep Batch: 60389

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.2	U	998	1174		mg/Kg		113	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.2	U	998	956.5		mg/Kg		96	70 - 130	1	20
C10-C28)											

MSD MSD Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 105 o-Terphenyl 78 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59870/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

мв мв

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/K	g		08/11/23 13:35	1

Lab Sample ID: LCS 880-59870/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	262.6		mg/Kg		105	90 - 110	 

Lab Sample ID: LCSD 880-59870/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 59955

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	261.0		ma/Ka		104	90 110		20	

Lab Sample ID: 890-5058-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	195		249	439.3		mg/Kg		98	90 - 110	

Lab Sample ID: 890-5058-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 59955

Alialysis Datcii. 33333											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	195		249	439.8		mg/Kg		98	90 - 110		20

**Eurofins Carlsbad** 

**Prep Type: Soluble** 

## **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1 SDG: Lea County NM

## **GC VOA**

Prep Batch: 60474
-------------------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60474/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 60526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5057-1	PH04	Total/NA	Solid	8021B	60548
MB 880-60474/5-A	Method Blank	Total/NA	Solid	8021B	60474
MB 880-60548/5-A	Method Blank	Total/NA	Solid	8021B	60548
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	8021B	60548
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60548
890-5057-1 MS	PH04	Total/NA	Solid	8021B	60548
890-5057-1 MSD	PH04	Total/NA	Solid	8021B	60548

## Prep Batch: 60548

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
PH04	Total/NA	Solid	5035	
Method Blank	Total/NA	Solid	5035	
Lab Control Sample	Total/NA	Solid	5035	
Lab Control Sample Dup	Total/NA	Solid	5035	
PH04	Total/NA	Solid	5035	
PH04	Total/NA	Solid	5035	
	PH04  Method Blank  Lab Control Sample  Lab Control Sample Dup  PH04	PH04 Total/NA  Method Blank Total/NA  Lab Control Sample Total/NA  Lab Control Sample Dup Total/NA  PH04 Total/NA	PH04 Total/NA Solid  Method Blank Total/NA Solid  Lab Control Sample Total/NA Solid  Lab Control Sample Dup Total/NA Solid  PH04 Total/NA Solid	PH04         Total/NA         Solid         5035           Method Blank         Total/NA         Solid         5035           Lab Control Sample         Total/NA         Solid         5035           Lab Control Sample Dup         Total/NA         Solid         5035           PH04         Total/NA         Solid         5035

## Analysis Batch: 60706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5057-1	PH04	Total/NA	Solid	Total BTEX	

## **GC Semi VOA**

## Prep Batch: 60389

<b>Lab Sample ID</b> 890-5057-1	Client Sample ID PH04	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 60609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5057-1	PH04	Total/NA	Solid	8015B NM	60389
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015B NM	60389
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60389
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60389
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	60389
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	60389

## **Analysis Batch: 60715**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5057-1	PH04	Total/NA	Solid	8015 NM	

## **QC Association Summary**

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery

Job ID: 890-5057-1

SDG: Lea County NM

## HPLC/IC

## Leach Batch: 59870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5057-1	PH04	Soluble	Solid	DI Leach	
MB 880-59870/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5058-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-5058-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 59955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5057-1	PH04	Soluble	Solid	300.0	59870
MB 880-59870/1-A	Method Blank	Soluble	Solid	300.0	59870
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	300.0	59870
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59870
890-5058-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	59870
890-5058-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	59870

## **Lab Chronicle**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

**Client Sample ID: PH04** 

Lab Sample ID: 890-5057-1

Matrix: Solid

Job ID: 890-5057-1

Date Collected: 08/07/23 13:35 Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	60548	08/18/23 09:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60526	08/19/23 02:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60706	08/21/23 11:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60715	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	60389	08/16/23 14:53	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 11:44	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59870	08/10/23 14:28	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59955	08/11/23 15:59	SMC	EET MID

## Laboratory References:

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

Eurofins Carlsbad

2

3

4

6

0

9

10

12

13

14

## **Accreditation/Certification Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5057-1 Project/Site: WEU Federal D Battery SDG: Lea County 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
Texas	NE	ELAP	T104704400-23-26	06-30-24
The following analytes	are included in this report, bu	t the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for y
the agency does not of	• •		od by the governing addressity. This list his	ay moldae analytes for
0 ,	• •	Matrix	Analyte	ay molade analytes for t
the agency does not of	fer certification.	•	, , ,	

## **Method Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1

SDG: Lea County NM

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

### **Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

## Laboratory References:

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

# **Sample Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5057-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5057-1	PH04	Solid	08/07/23 13:35	08/09/23 08:15	6

Relinquished by: (Signature)

Receiyed by: (Signature)

923 Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020 2

	eurofins:
Xenco	Environment Testing

Phone:

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334

					ī	HODDS, NM (3/3) 382-7330, Calistrat, NM (3/3) 900-3199	(2/2) 382	2-7550,	Callsbau,	MAN (SYS)	) 900-31	3			www	www.xenco.com	com <sup>3</sup> age 1	of 1
Project Manager: Eri	Erick Herrera			<u> </u>	Bill to: (if different)	ent)									5	ork Oru	Work Order Comments	
	Etech Environmental & Safety Solutions, Inc.	ental & Sa	fety Soluti		Company Name	me:							Pro	Program: UST/PST	PST	PRP   E	] PRP ☐ Brownfields ☐ RRC ☐ Superfund [	Superfund
	1300 W County Rd 100	Rd 100			Address:								Stat	State of Project:				
e ZIP:	Midland. Texas 79711	9711		0	City, State ZIP:	ָּסָּ							Rep	Reporting: Level II Level III PST/UST		vel Ⅲ		☐TRRP ☐ Level IV ☐
	(281)777-4152			Email: e	Email: erick@etechenv.com, joseph@etechenv.com	henv.com	n, joser	oh@et	echeny	.com			Defi	Deliverables: EDD		>	ADaPT  Other:	. ?
Project Name:	WEU Federal D Battery	al D Batte	Ž	Turn /	Turn Around						ANA	LYSIS	ANALYSIS REQUEST	Ŧ			Preserva	Preservative Codes
Project Number:	18.	18342		☑ Routine	Rush	Pres.									-		None: NO	DI Water: H <sub>2</sub> O
Project Location:	Lea County, New Mexico	New Mex		Due Date:	5 TAT												Cool: Cool	MeOH: Me
Sampler's Name:	Edyte	Edyte Konan		TAT starts the day received by	day received t	ŷ.			.0		<del></del>						HCL: HC	HNO <sub>3</sub> : HN
PO #:				the lab, if received by 4:30pm	ived by 4:30pn		3	D	300.					_	-	_	H <sub>2</sub> S0 <sub>4</sub> : H <sub>2</sub>	NaOH: Na
SAMPLE RECEIPT	Temp Blank:		So No	Wet Ice:	(Yes No	nete	021E	15M/	HOD		<b>=</b>						H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:	6	No Th	Thermometer ID:	4	FOOMEN	ıran	DD 8	08 C	ETH								NaHSO <sub>4</sub> : NABIS	Ō
Cooler Custody Seals:	Yes No	(MA) Co	Correction Factor:	ictor:	် (၁ (၁)	Pa	THO	НОІ	PA N		_						Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	03
Sample Custody Seals:	Yes No	N/A) Te	Temperature Reading:	Reading:		l	ME	MET	- EF		=						Zn Acetate+NaOH: Zn	OH: Zn
Total Containers:		co	Corrected Temperature:	mperature:	73		EPA	PA	RIDE		88	890-5057	57 Chain of Custody	ustody			NaOH+Ascorbic Acid: SAPC	ic Acid: SAPC
Sample Identification		Matrix S	Date Sampled	Time Sampled	Depth Grab/	np Cont	BTEX -	TPH - E	CHLOR								Sample	Sample Comments
PH04		s ®	8.7.2023	13:35 6'	G		×	×	×	_							Incic	Incident ID:
					_												nAPP23	nAPP2321448004
		-						_		-			-		+			
								_	-	-	$\vdash$				-			
								_		-	-		-	ļ.	+			
					_				_	-					-			
Total 200.7 / 6010	0 200.8 / 6020:	20:	8	8RCRA 13PPM Texas 11 Al Sb As	PM Texas	s 11 Al	Sb As		Ba Be B Cd Ca Cr Co Cu Fe	d Ca	S	2.18	Pb Mg	Pb Mg Mn Mo Ni K	ㅈ	Ag SiC	Se Ag SiO <sub>2</sub> Na Sr Tl Sn U	V Zn 7771
Circle Method(s) and Metal(s) to be analyzed	Metai(s) to be	anaiyzed		ICLP / St	ICLY / SPLY BUILD: BRUCKA OF AS DA DE CA CI CO CA FO MI	OX CXA	S G Y	Da	00	2	Ç.	1 II	NO 141 OC	A COLOR			. 100 1 2 TO: 1 7 T T O 7 T T T	1 1 1 1
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 sarvice. 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	ment and relinquisi	ment of sam	ples constitu	tes a valid purci	hase order from	n cflent com	pany to E	urofins	Xenco, its	affiliates	and subc	ontractors	s. It assigns	standard term	s and conc	litions		

**Eurofins Carlsbad** 1089 N Canal St.

13

Chain of Custody Record

eurofins \*\*

Environment Testing

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central. LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central. LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central. LLC. State Zip. TX 79701 PH04 (890-5057-1) Sample Identification - Client ID (Lab ID) **Eurofins Environment Testing South Cente** Carlsbad, NM 88220 Phone 575-988-3199 Fax 575-988-3199 ossible Hazard Identification Project Name<sup>.</sup> WEU Federal D Battery Shipping/Receiving Client Information (Sub Contract Lab) Deliverable Requested I II III IV Other (specify) 432-704-5440(Tel) Email Midland 1211 W Florida Ave elinquished by slinquished by npty Kit Relinquished by Custody Seals Intact. linquished by Yes 8 Custody Seal No Project #: 88000073 Due Date Requested 8/15/2023 Phone: Date/Time Date/Time Date/Time Primary Deliverable Rank. 2 WO# FAT Requested (days) 8/7/23 Mountain Sample 13 35 (C=comp. Sample G=grab) Preservation Code: Type Company Company Matrix Solid Kramer, Jessica Jessica Kramer@et.eurofinsus.com Field Filtered Sample (Yes or No) ime Accreditations Required (See note):
NELAP - Louisiana, NELAP - Texas Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal Rul 1 ah Archive For Month Received by 8016MOD\_NM/8016NM\_S\_Prep Full TPH Cooler Temperature(s) °C and Other Remarks: × Return To Client 8015MOD Calc × 300\_ORGFM\_28D/DI\_LEACH Chloride × 8021B/5035FP\_Calc Mid - BTEX Analysis Requested Total\_BTEX\_GCV × Disposal By Lab State of Origin New Mexico Carrier Tracking No(s) od of Shipment Date/Time: Date/Time Date/Time Archive For Total Number of containers A HCL
B NAOH
C Zn Acetate
D Nitric Acid
E NaHSO4
F MoOH
G Amchlor
H Ascorbic Acid
I-loe
J Di Water
K EDTA
L EDA COC No 890-1419 1 Preservation Codes Page 1 of 1 890-5057-1 M. Hexane
N. None
O. AsNac/2
P. Na2O4S
Q. Na2SO3
R. Na2SO3
R. Na2SO3
R. Na2SO4
T. TSP Dodecahydrate
U. Acetone
U. MCAA
W. pH.4-5
Y. Trzma
Z. other (specify) Company Months

Ver: 06/08/2021

## **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5057-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 5057 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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Released to Imaging: 12/22/2023 9:08:07 AM

## **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5057-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 08/10/23 12:57 PM

Creator: Rodriguez, Leticia

Login Number: 5057

List Number: 2

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: 12/22/2023 9:08:07 AM

<6mm (1/4").

**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Erick Herrera Etech Environmental & Safety Solutions PO BOX 62228 Midland, Texas 79711

Generated 8/21/2023 11:43:32 AM

# **JOB DESCRIPTION**

WEU Federal D Battery SDG NUMBER Lea County NM

# **JOB NUMBER**

890-5060-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



# **Eurofins Carlsbad**

## **Job Notes**

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

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

## **Authorization**

Generated 8/21/2023 11:43:32 AM

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

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery Laboratory Job ID: 890-5060-1 SDG: Lea County NM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	20

1

2

3

4

6

8

10

40

13

14

## **Definitions/Glossary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

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

NFG Negative / Absent POS Positive / Present PQL Practical Quantitation Limit

**PRES** Presumptive

QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

**Eurofins Carlsbad** 

Released to Imaging: 12/22/2023 9:08:07 AM

## Case Narrative

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5060-1 SDG: Lea County NM

Job ID: 890-5060-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-5060-1

### Receipt

The sample was received on 8/9/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

## **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: FS01 (890-5060-1).

### **GC VOA**

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

### GC Semi VOA

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-60389 and analytical batch 880-60609 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60609/21), (CCV 880-60609/6) and (LCS 880-60389/2-A). Evidence of matrix interferences is not obvious.

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

### HPLC/IC

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

3

4

J

8

10

13

| | 4

## **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

**Client Sample ID: FS01** 

Date Received: 08/09/23 08:15

Lab Sample ID: 890-5060-1 Date Collected: 08/07/23 12:00

Matrix: Solid

Job ID: 890-5060-1

Sample Depth: 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 03:46	
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 03:46	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 03:46	
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		08/18/23 09:22	08/19/23 03:46	
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 03:46	
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		08/18/23 09:22	08/19/23 03:46	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	96		70 - 130				08/18/23 09:22	08/19/23 03:46	
1,4-Difluorobenzene (Surr)	92		70 - 130				08/18/23 09:22	08/19/23 03:46	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/21/23 11:16	
Method: SW846 8015 NM - Diese		, , ,	•	MDI	11-14		D	A l	D:: F-
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	
Analyte	•	Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/21/23 11:32	
Method: SW846 8015 NM - Diese Analyte Total TPH : Method: SW846 8015B NM - Dies		Qualifier U	RL 49.6	MDL		<u>D</u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.6	Qualifier U	RL 49.6	MDL	mg/Kg	<u>D</u>	Prepared Prepared		
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.6  Sel Range Orga Result	Qualifier U	RL 49.6		mg/Kg		<u> </u>	08/21/23 11:32	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.6  sel Range Orga Result	Qualifier U  nics (DRO) Qualifier U	RL 49.6		mg/Kg		Prepared	08/21/23 11:32  Analyzed	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.6 sel Range Orga Result <49.6	Qualifier U  nics (DRO) Qualifier U	RL 49.6  (GC) RL 49.6		mg/Kg  Unit mg/Kg		Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed  08/19/23 12:27	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.6  sel Range Orga Result <49.6 <49.6	Qualifier U  nics (DRO) Qualifier U  U	RL 49.6  (GC) RL 49.6  49.6		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53	08/21/23 11:32  Analyzed  08/19/23 12:27  08/19/23 12:27	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result   <49.6	Qualifier U  nics (DRO) Qualifier U  U	RL 49.6  (GC) RL 49.6  49.6  49.6		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53	08/21/23 11:32  Analyzed 08/19/23 12:27 08/19/23 12:27	Dil Fa
Analyte Total TPH	Result   <49.6	Qualifier U  nics (DRO) Qualifier U  U	RL 49.6  (GC) RL 49.6 49.6 49.6 Limits		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53 08/16/23 14:53 Prepared	08/21/23 11:32  Analyzed  08/19/23 12:27  08/19/23 12:27  08/19/23 12:27  Analyzed	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result   <49.6	Qualifier U  nics (DRO) Qualifier U  U  Qualifier	RL 49.6  (GC)  RL 49.6  49.6  49.6  Limits  70 - 130  70 - 130		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53 08/16/23 14:53  Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed 08/19/23 12:27  08/19/23 12:27  08/19/23 12:27  Analyzed  08/19/23 12:27	Dil Fa
Analyte Total TPH  Method: SW846 8015B NM - Dies 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	Qualifier U  nics (DRO) Qualifier U  U  Qualifier	RL 49.6  (GC)  RL 49.6  49.6  49.6  Limits  70 - 130  70 - 130		mg/Kg  Unit mg/Kg  mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53 08/16/23 14:53  Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed 08/19/23 12:27  08/19/23 12:27  08/19/23 12:27  Analyzed  08/19/23 12:27	Dil Fac

## **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Rec
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-5057-A-1-D MS	Matrix Spike	120	95	
890-5057-A-1-E MSD	Matrix Spike Duplicate	106	101	
890-5060-1	FS01	96	92	
LCS 880-60548/1-A	Lab Control Sample	121	97	
LCSD 880-60548/2-A	Lab Control Sample Dup	104	90	
MB 880-60474/5-A	Method Blank	102	119	
MB 880-60548/5-A	Method Blank	105	106	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Prep Type: Total/NA **Matrix: Solid** 

				Percent Surrogate Reco
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-31775-A-1-D MS	Matrix Spike	104	79	
880-31775-A-1-E MSD	Matrix Spike Duplicate	105	78	
890-5060-1	FS01	124	110	
LCS 880-60389/2-A	Lab Control Sample	131 S1+	120	
LCSD 880-60389/3-A	Lab Control Sample Dup	130	113	
MB 880-60389/1-A	Method Blank	156 S1+	145 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60474/5-A

**Matrix: Solid** Analysis Batch: 60526 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60474

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	08/17/23 13:33	08/18/23 12:08	1
1,4-Difluorobenzene (Surr)	119		70 - 130	08/17/23 13:33	08/18/23 12:08	1

Lab Sample ID: MB 880-60548/5-A

**Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60548

	INID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepa	red	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	08/18/23	09:22	08/19/23 02:16	1
1,4-Difluorobenzene (Surr)	106		70 - 130	08/18/23	09:22	08/19/23 02:16	1

Lab Sample ID: LCS 880-60548/1-A

**Matrix: Solid** 

Analysis Batch: 60526

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 60548

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1225		mg/Kg		123	70 - 130	
Toluene	0.100	0.1073		mg/Kg		107	70 - 130	
Ethylbenzene	0.100	0.1199		mg/Kg		120	70 - 130	
m-Xylene & p-Xylene	0.200	0.2283		mg/Kg		114	70 - 130	
o-Xylene	0.100	0.09771		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-60548/2-A

**Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: Lab	Control Sample Dup
	Date of Taxable Taxable I/NIA

Prep Type: Total/NA

Prep Batch: 60548

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1169		mg/Kg		117	70 - 130	5	35

**Eurofins Carlsbad** 

Page 8 of 21

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: LCSD 880-60548/2-A

**Matrix: Solid** Analysis Batch: 60526 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 60548 %Rec **RPD** Unit %Rec Limits **RPD** Limit D 106 70 - 130 35 mg/Kg

Spike LCSD LCSD Analyte Added Result Qualifier Toluene 0.100 0.1062 Ethylbenzene 0.100 0.1139 mg/Kg 114 70 - 130 5 35 0.200 m-Xylene & p-Xylene 0.2143 107 70 - 130 35 mg/Kg 6 o-Xylene 0.100 0.09471 mg/Kg 95 70 - 130 3 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-5057-A-1-D MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 60526

Prep Type: Total/NA

Prep Batch: 60548

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 0.0996 Benzene <0.00199 0.1229 mg/Kg 123 70 - 130 Toluene <0.00199 0.0996 0.1054 105 70 - 130 U mg/Kg 0.0996 Ethylbenzene < 0.00199 0.1206 mg/Kg 121 70 - 130 <0.00398 U 0.199 0.2210 70 - 130 m-Xylene & p-Xylene mg/Kg 111 o-Xylene <0.00199 U 0.0996 0.09354 mg/Kg 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	120	70 - 130
1,4-Difluorobenzene (Surr)	95	70 - 130

Lab Sample ID: 890-5057-A-1-E MSD

**Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 60548

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Qualifier Unit %Rec Limits RPD Limit Result Benzene <0.00199 0.101 0.1286 mg/Kg 128 70 - 130 5 35 Toluene <0.00199 U 0.101 0.1117 mg/Kg 110 70 - 130 6 35 Ethylbenzene < 0.00199 0.101 0.1155 mg/Kg 115 70 - 130 35 <0.00398 U 0.202 0.2033 101 70 - 130 35 m-Xylene & p-Xylene mg/Kg 8 o-Xylene <0.00199 U 0.101 0.09153 mg/Kg 70 - 130 35

MSD MSD

Surrogate	%Recovery	Quaimer	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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

Lab Sample ID: MB 880-60389/1-A

**Matrix: Solid** 

**Analysis Batch: 60609** 

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

Prep Batch: 60389

MB MB Analyte Result Qualifier RL MDL Unit Prepared <50.0 U 50.0 08/16/23 14:52 08/19/23 07:38 Gasoline Range Organics mg/Kg

(GRO)-C6-C10

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: MB 880-60389/1-A **Matrix: Solid** 

Lab Sample ID: LCS 880-60389/2-A

Matrix: Solid

Analysis Batch: 60609

**Analysis Batch: 60609** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60389

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/K	g	08/16/23 14:52	08/19/23 07:38	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/K	g	08/16/23 14:52	08/19/23 07:38	1

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130	08/16/23 14:52	08/19/23 07:38	1
o-Terphenyl	145	S1+	70 - 130	08/16/23 14:52	08/19/23 07:38	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 60389

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1041		mg/Kg		104	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1099		mg/Kg		110	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-60389/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

1000

**Matrix: Solid** 

Analysis Batch: 60609							Prep	Batch:	60389
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	962.4		mg/Kg		96	70 - 130	8	20
(GRO)-C6-C10									

953.3

mg/Kg

Diesel Range Organics (Over C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	130		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-31775-A-1-D MS

**Matrix: Solid** 

Analysis Batch: 60609

Client Sample ID: Matrix S	nike

70 - 130

Prep Type: Total/NA Prep Batch: 60389

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	998	1166		mg/Kg		113	70 - 130	
Diesel Range Organics (Over	<50.2	U	998	968.0		mg/Kg		97	70 - 130	
C10-C28)										

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	79		70 - 130

**Eurofins Carlsbad** 

20

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Lab Sample ID: 880-31775-A-1-E MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Analysis Batch: 60609 Prep Batch: 60389 Sample Sample MSD MSD RPD Spike Added Result %Rec Limits RPD Limit Unit D

Result Qualifier Analyte Qualifier Gasoline Range Organics <50.2 U 998 1174 mg/Kg 113 70 - 130 20 (GRO)-C6-C10 998 956.5 70 - 130 Diesel Range Organics (Over <50.2 U mg/Kg 96 20

C10-C28)

MSD MSD Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 105 o-Terphenyl 78 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59870/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

MB MB

MDL Unit Result Qualifier Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 5.00 08/11/23 13:35 mg/Kg

Lab Sample ID: LCS 880-59870/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 262.6 90 - 110 mg/Kg 105

Lab Sample ID: LCSD 880-59870/3-A

**Matrix: Solid** 

Analysis Batch: 59955

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	261.0		ma/Ka		104	90 110		20	

Lab Sample ID: 890-5058-A-1-B MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

**Analysis Batch: 59955** 

Sample Sample Spike MS MS %Rec Qualifier Added Qualifier Analyte Result Result %Rec Limits Unit Chloride 249 90 - 110 195 439.3 mg/Kg

Lab Sample ID: 890-5058-A-1-C MSD

Matrix: Solid

Analysis Batch: 59955

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	195		249	439.8		mg/Kg		98	90 - 110	0	20

# **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5060-1 SDG: Lea County NM

## **GC VOA**

Prep Batch: 60	)474
----------------	------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60474/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 60526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5060-1	FS01	Total/NA	Solid	8021B	60548
MB 880-60474/5-A	Method Blank	Total/NA	Solid	8021B	60474
MB 880-60548/5-A	Method Blank	Total/NA	Solid	8021B	60548
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	8021B	60548
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60548
890-5057-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	60548
890-5057-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60548

## Prep Batch: 60548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5060-1	890-5060-1 FS01		Solid	5035	_
MB 880-60548/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5057-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-5057-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## **Analysis Batch: 60709**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5060-1	FS01	Total/NA	Solid	Total BTEX	

## **GC Semi VOA**

## Prep Batch: 60389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5060-1	FS01	Total/NA	Solid	8015NM Prep	
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 60609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-5060-1	FS01	Total/NA	Solid	8015B NM	60389	
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015B NM	60389	
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60389	
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60389	
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	60389	
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	60389	

## **Analysis Batch: 60717**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5060-1	FS01	Total/NA	Solid	8015 NM	

# **QC Association Summary**

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery

Job ID: 890-5060-1 SDG: Lea County NM

HPLC/IC

Leach Batch: 59870

<b>Lab Sample ID</b> 890-5060-1					Matrix Solid	Method DI Leach	Prep Batch
MB 880-59870/1-A	Method Blank	Soluble	Solid	DI Leach			
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	DI Leach			
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach			
890-5058-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach			
890-5058-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach			

Analysis Batch: 59955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5060-1	FS01	Soluble	Solid	300.0	59870
MB 880-59870/1-A	Method Blank	Soluble	Solid	300.0	59870
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	300.0	59870
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59870
890-5058-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	59870
890-5058-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	59870

1

7

8

10

11

13

14

## **Lab Chronicle**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

SDG: Lea County NM

Lab Sample ID: 890-5060-1

Matrix: Solid

Job ID: 890-5060-1

**Client Sample ID: FS01** Date Collected: 08/07/23 12:00

Date Received: 08/09/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	60548	08/18/23 09:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60526	08/19/23 03:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60709	08/21/23 11:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60717	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	60389	08/16/23 14:53	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 12:27	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	59870	08/10/23 14:28	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59955	08/11/23 16:44	SMC	EET MID

## **Laboratory References:**

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

#### **Accreditation/Certification Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5060-1 Project/Site: WEU Federal D Battery SDG: Lea County 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
Texas	NE	ELAP	T104704400-23-26	06-30-24
The following analytes	are included in this report, bu	t the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for y
the agency does not of	• •		od by the governing addressity. This list his	ay moldae analytes for
0 ,	• •	Matrix	Analyte	ay molade analytes for t
the agency does not of	fer certification.	•	, , ,	

#### **Method Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5060-1 SDG: Lea County NM

/lethod	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
Ol Leach	Deionized Water Leaching Procedure	ASTM	EET MID

#### **Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

**Eurofins Carlsbad** 

3

4

6

0

9

11

14

#### **Sample Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5060-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5060-1	FS01	Solid	08/07/23 12:00	08/09/23 08:15	6

eurofins Xenco **Environment Testing** 

Project Number: Project Name: Phone: City, State ZIP:

Company Name:

Erick Herrera

Etech Environmental & Safety Solutions, Inc.

Company Name: Bill to: (if different)

Address:

Midland, Texas 79711

1300 W County Rd 100

(281)777-4152

Email: erick@etechenv.com, joseph@etechenv.com

City, State ZIP:

WEU Federal D Battery

☑ Routine

Rush

Code

Turn Around

ANALYSIS REQUEST

Cool: Cool None: NO

МеОН: Ме DI Water: H<sub>2</sub>O **Preservative Codes** 

# Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No:

www.xenco.com <sup>2</sup> age 1 of 1	
Work Order Comments	
Program: UST/PST☐ PRP☐ Brownfields☐ RRC☐ Superfund ☐	
State of Project:	
Reporting: Level III DLevel III DRST/UST TRRP Level IV	
Deliverables: EDD	

Ravised Date 06/25/2020 Rev 2020 2	71							-		
			n			1				
			4			1				
			2 SA SE.P X	d K		8	DON		AND THE	11
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time		ure)	Received by: (Signature)	) Receiv	ture)	Relinquished by: (Signature)	Reling
	tors. It assigns standard terms and conditions ses are due to circumstances beyond the control terms will be enforced unless previously negotiated.	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 controper for Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotions.	npany to Eurofins Xend losses or expenses in submitted to Eurofins X	m client cor sility for any ch sample s	urchase order from me any responsib harge of \$5 for ea	onstitutes a valid p and shall not assu ich project and a c	of samples co st of samples applied to ea	and relinquishment table only for the co trge of \$85.00 will b	ture of this document urofins Xenco will be enco. A minimum che	service. E Eurofins X
7470 / 7471	Ag TI U Hg: 1631/245.1/7470/7471	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	b As Ba Be Co		TCLP / SPLP 6010: 8RCRA	TCLP / SI	ed	(s) to be analyz	Circle Method(s) and Metal(s) to be analyzed	ircle Me
Sn U V Zn	Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn	Cd Ca Cr Co Cu Fe Pb Mg Mn	₿	1 Al St	PM Texas 1	8RCRA 13PPM Texas 11 Al Sb As Ba Be		200.8 / 6020:	Total 200.7 / 6010	Total
nAPP2321448004	p									
Incident ID:			×	->	6' C	12:00	8.7.2023	S	FS01	
Sample Comments	Sa		TPH - E	Grab/ # of Comp Cont	Depth Grab/	Time i Sampled	Date Sampled	n Matrix	Sample Identification	S
NaOH+Ascorbic Acid: SAPC		890-5060 Chain of Custody	EPA I		7.1	Corrected Temperature:	Corrected		iners:	Total Containers:
Zn Acetate+NaOH: Zn	Zn Aceta		MET		-	Temperature Reading:	Temperatu	Yes No NIA	Sample Custody Seals:	mple Cu
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>		HOI	Pa	6.01	Factor:	Correction Factor:	Yes No (N)A	Cooler Custody Seals:	ooler Cus
NaHSO <sub>4</sub> : NABIS	NaHSO		D 80	arar	TOOM	eter ID: //	Thermometer ID:	(Yes No	Samples Received Intact:	amples F
£	H <sub>3</sub> PO <sub>4</sub> : HP		15M	nete	Yes No	Wet ice:	Yey No	Temp Blank:	SAMPLE RECEIPT	AMPLE
1 <sub>2</sub> NaOH: Na	H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>		D O	rs	the lab, if received by 4:30pm	the lab, if rec				PO#:
HNO3: HN	HCL: HC		0		TAT starts the day received by	TAT starts the	5	Edyte Konan		Sampler's Name
	Cool: Cool			L	5 TAT	Due Date:	Mexico	Lea County, New Mexico		Project Location:

**Eurofins Carlsbad** 1089 N Canal St.

13

# Chain of Custody Record

💸 eurofins

**Environment Testing** 

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC aboratory or other instructions will be provided. Any changes the samples must be shipped back to the Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC attention immediately. State, Zip<sup>.</sup> TX 79701 Deliverable Requested I, II III IV Other (specify) Project Name: WEU Federal D Battery Sample Identification - Client ID (Lab ID) Possible Hazard Identification FS01 (890-5060-1) 432-704-5440(Tel) Midland 1211 W Florida Ave elinquished by Empty Kit Relinquished by Eurofins Environment Testing South Centr Carlsbad, NM 88220 Phone 575-988-3199 Fax: 575-988-3199 elinquished by: Custody Seals Intact: inquished by: ipping/Receiving lient Information Yes 8 (Sub Contract Lab) Custody Seal No Project #: 88000073 Date/Time Date/Time: Primary Deliverable Rank. 2 Due Date Requested 8/15/2023 Phone Date/Time TAT Requested (days) Sampler Sample Date 8/7/23 Date Mountain Sample Time 12 00 G=grab) (C=comp, Sample Preservation Code: Type Company Company Company Matrix Solid Jessica Kramer@et.eurofinsus.com Kramer Jessica Field Filtered Sample (Yes or No) NELAP - Louisiana NELAP - Texas Perform MS/MSD (Yes or No) Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Special Instructions/QC Requirements × 8015MOD\_NM/8015NM\_S\_Prep Full TPH Received by: Cooler Temperature(s) °C and Other Remarks × 8015MOD\_Calc 300\_ORGFM\_28D/DI\_LEACH Chloride × × 8021B/5035FP\_Calc Mid - BTEX Analysis Requested Total BTEX GCV × State of Origin
New Mexico Carrier Tracking No(s) Date/Time Date/Time Total Number of containers A-HCL
B NaOH
C-Zn Acetate
D Nitric Acid
E-NaHSO4
F MoOH
G-Amchlor
H Ascorbic Acid
I-loe
J DI Water
K EDTA
L EDA Page: Page 1 of 1 COC No 890-1419 1 Preservation Codes 390-5060-1 Special Instructions/Note N Hexane
N-None
O AsNaO2
P Na2O4S
Q Na2SO3
R Na2SC3
R Na2SC3
R Na2SC3
Y Tizma
Z other (specify) Company Ver 06/08/2021 Company **Months** 

#### **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5060-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 5060 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.	N/A	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Euronnis Carisbau

Released to Imaging: 12/22/2023 9:08:07 AM

1

2

4

5

7

9

11

13

#### **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5060-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 08/10/23 12:57 PM

Creator: Rodriguez, Leticia

Login Number: 5060

List Number: 2

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	

<6mm (1/4").

**Environment Testing** 

## **ANALYTICAL REPORT**

#### PREPARED FOR

Attn: Erick Herrera Etech Environmental & Safety Solutions PO BOX 62228 Midland, Texas 79711

Generated 8/21/2023 11:43:33 AM

### **JOB DESCRIPTION**

WEU Federal D Battery SDG NUMBER Lea County NM

#### **JOB NUMBER**

890-5059-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



## **Eurofins Carlsbad**

#### **Job Notes**

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

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

#### **Authorization**

Generated 8/21/2023 11:43:33 AM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

9

2

4

\_

7

8

10

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery Laboratory Job ID: 890-5059-1 SDG: Lea County NM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receint Checklists	20

3

6

8

10

11

4.0

#### **Definitions/Glossary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5059-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

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

NFG Negative / Absent POS Positive / Present PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

**Eurofins Carlsbad** 

Released to Imaging: 12/22/2023 9:08:07 AM

#### **Case Narrative**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1 SDG: Lea County NM

Job ID: 890-5059-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-5059-1

#### Receipt

The sample was received on 8/9/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

#### **Receipt Exceptions**

The following sample was received and analyzed from an unpreserved bulk soil jar: SW01 (890-5059-1).

#### **GC VOA**

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

#### GC Semi VOA

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-60389 and analytical batch 880-60609 was outside the upper control limits.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60609/21), (CCV 880-60609/6) and (LCS 880-60389/2-A). Evidence of matrix interferences is not obvious.

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

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

#### **Client Sample Results**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1 SDG: Lea County NM

Lab Sample ID: 890-5059-1

Matrix: Solid

Client Sample ID: SW01

Date Collected: 08/07/23 12:10 Date Received: 08/09/23 08:15

Sample Depth: 0 - 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/18/23 09:22	08/19/23 03:26	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/18/23 09:22	08/19/23 03:26	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/18/23 09:22	08/19/23 03:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/18/23 09:22	08/19/23 03:26	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/18/23 09:22	08/19/23 03:26	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/18/23 09:22	08/19/23 03:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				08/18/23 09:22	08/19/23 03:26	1
1,4-Difluorobenzene (Surr)	88		70 - 130				08/18/23 09:22	08/19/23 03:26	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/21/23 11:16	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (	GC)						
	•		•	MDI	Unit	n	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	•	Qualifier	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/21/23 11:32	Dil Fac
Analyte	Result	Qualifier	RL	MDL		<u>D</u>	Prepared		Dil Fac
Analyte	Result < 50.0	Qualifier U	<b>RL</b> 50.0	MDL		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result  <50.0 sel Range Orga	Qualifier U	<b>RL</b> 50.0			<u>D</u>	Prepared Prepared		1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0  sel Range Orga Result	Qualifier U nics (DRO) Qualifier	RL 50.0		mg/Kg			08/21/23 11:32	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result <50.0  sel Range Orga Result	Qualifier U  nics (DRO) Qualifier U	8L 50.0		mg/Kg		Prepared	08/21/23 11:32  Analyzed	1 Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0  sel Range Orga Result <50.0	Qualifier U  nics (DRO) Qualifier U	(GC) RL 50.0		mg/Kg  Unit mg/Kg		Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed  08/19/23 12:49	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0  sel Range Orga Result <50.0	Qualifier U  nics (DRO) Qualifier U	(GC) RL 50.0		mg/Kg  Unit mg/Kg		Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed  08/19/23 12:49	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result   <50.0	Qualifier U  nics (DRO) Qualifier U  U	RL 50.0 (GC) RL 50.0 50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53	08/21/23 11:32  Analyzed  08/19/23 12:49  08/19/23 12:49	1
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <50.0	Qualifier U  nics (DRO) Qualifier U  U	RL 50.0  (GC)  RL 50.0  50.0  50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53	08/21/23 11:32  Analyzed 08/19/23 12:49 08/19/23 12:49 08/19/23 12:49	1 Dil Fac 1 1
Analyte Total TPH  Method: SW846 8015B NM - Dies 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  nics (DRO) Qualifier U  U	RL     50.0		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53 08/16/23 14:53 Prepared	08/21/23 11:32  Analyzed 08/19/23 12:49 08/19/23 12:49 08/19/23 12:49  Analyzed	Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U  nics (DRO) Qualifier U  U  Qualifier	RL 50.0  (GC)  RL 50.0  50.0  50.0  Limits  70 - 130  70 - 130		mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53 08/16/23 14:53  Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed 08/19/23 12:49 08/19/23 12:49  08/19/23 12:49  Analyzed 08/19/23 12:49	Dil Fac  1  1  Dil Fac
Analyte Total TPH  Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U  nics (DRO) Qualifier U  U  Qualifier	RL 50.0  (GC)  RL 50.0  50.0  50.0  Limits  70 - 130  70 - 130	MDL	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 08/16/23 14:53 08/16/23 14:53 08/16/23 14:53  Prepared 08/16/23 14:53	08/21/23 11:32  Analyzed 08/19/23 12:49 08/19/23 12:49  08/19/23 12:49  Analyzed 08/19/23 12:49	Dil Fac  1  1  Dil Fac

3

5

7

9

44

12

13

| "

Released to Imaging: 12/22/2023 9:08:07 AM

DFBZ = 1,4-Difluorobenzene (Surr)

OTPH = o-Terphenyl

#### **Surrogate Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5059-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-5057-A-1-D MS	Matrix Spike	120	95	
90-5057-A-1-E MSD	Matrix Spike Duplicate	106	101	
90-5059-1	SW01	93	88	
CS 880-60548/1-A	Lab Control Sample	121	97	
CSD 880-60548/2-A	Lab Control Sample Dup	104	90	
/IB 880-60474/5-A	Method Blank	102	119	
//B 880-60548/5-A	Method Blank	105	106	
Surrogate Legend				
Surrogate Legend BFB = 4-Bromofluorobe	nzene (Surr)			

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

Prep Type: Total/NA **Matrix: Solid** 

=				Percent Surrogate Rec
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-31775-A-1-D MS	Matrix Spike	104	79	
880-31775-A-1-E MSD	Matrix Spike Duplicate	105	78	
890-5059-1	SW01	118	103	
LCS 880-60389/2-A	Lab Control Sample	131 S1+	120	
LCSD 880-60389/3-A	Lab Control Sample Dup	130	113	
MB 880-60389/1-A	Method Blank	156 S1+	145 S1+	
Surrogate Legend				
1CO = 1-Chlorooctane				

#### **QC Sample Results**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5059-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60474/5-A

Lab Sample ID: MB 880-60548/5-A

**Matrix: Solid** Analysis Batch: 60526 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60474

	мв	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/17/23 13:33	08/18/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/17/23 13:33	08/18/23 12:08	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepai	red	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	08/17/23	13:33	08/18/23 12:08	1
1,4-Difluorobenzene (Surr)	119		70 - 130	08/17/23	13:33	08/18/23 12:08	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60548

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/18/23 09:22	08/19/23 02:16	1
Xylenes, Total	< 0.00400	U	0.00400		mg/Kg		08/18/23 09:22	08/19/23 02:16	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	08/18/23 09:22	08/19/23 02:16	1
1,4-Difluorobenzene (Surr)	106		70 - 130	08/18/23 09:22	08/19/23 02:16	1

Lab Sample ID: LCS 880-60548/1-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 60526

Analysis Batch: 60526

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 60548

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1225		mg/Kg		123	70 - 130	
Toluene	0.100	0.1073		mg/Kg		107	70 - 130	
Ethylbenzene	0.100	0.1199		mg/Kg		120	70 - 130	
m-Xylene & p-Xylene	0.200	0.2283		mg/Kg		114	70 - 130	
o-Xylene	0.100	0.09771		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	121	70 - 130
1.4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: LCSD 880-60548/2-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 60526 Prep Batch: 60548 Spike LCSD LCSD RPD %Rec Result Qualifier Added Unit %Rec Limits RPD Limit

Analyte Benzene 0.100 0.1169 mg/Kg 117 70 - 130 5

#### QC Sample Results

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1 SDG: Lea County NM

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

Lab Sample ID: LCSD 880-60548/2-A **Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 60548

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Toluene 0.100 0.1062 106 70 - 130 35 mg/Kg Ethylbenzene 0.100 0.1139 mg/Kg 114 70 - 130 0.200 m-Xylene & p-Xylene 0.2143 mg/Kg 107 70 - 130 35 6 o-Xylene 0.100 0.09471 mg/Kg 95 70 - 130 3

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-5057-A-1-D MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 60526

Prep Type: Total/NA

Prep Batch: 60548

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0996	0.1229		mg/Kg		123	70 - 130	
Toluene	<0.00199	U	0.0996	0.1054		mg/Kg		105	70 - 130	
Ethylbenzene	<0.00199	U	0.0996	0.1206		mg/Kg		121	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2210		mg/Kg		111	70 - 130	
o-Xylene	<0.00199	U	0.0996	0.09354		mg/Kg		94	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	120	70 - 130
1,4-Difluorobenzene (Surr)	95	70 - 130

Lab Sample ID: 890-5057-A-1-E MSD

**Matrix: Solid** 

Analysis Batch: 60526

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 60548

7											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.101	0.1286		mg/Kg		128	70 - 130	5	35
Toluene	<0.00199	U	0.101	0.1117		mg/Kg		110	70 - 130	6	35
Ethylbenzene	<0.00199	U	0.101	0.1155		mg/Kg		115	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2033		mg/Kg		101	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.09153		mg/Kg		91	70 - 130	2	35
I .											

MSD MSD

MD MD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

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

Lab Sample ID: MB 880-60389/1-A

**Matrix: Solid** 

Analysis Batch: 60609

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

Prep Batch: 60389

	IVID	IAID						
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/16/23 14:52	08/19/23 07:38	1
(GRO)-C6-C10								

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1

SDG: Lea County NM

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

Lab Sample ID: MB 880-60389/1-A

Lab Sample ID: LCS 880-60389/2-A

**Matrix: Solid** 

**Matrix: Solid** 

Analysis Batch: 60609

**Analysis Batch: 60609** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60389

	IVID	IVID						
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	<u> </u>	08/16/23 14:52	08/19/23 07:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/16/23 14:52	08/19/23 07:38	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pre	pared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130	08/16/	23 14:52	08/19/23 07:38	1
o-Terphenyl	145	S1+	70 - 130	08/16/	23 14:52	08/19/23 07:38	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 60389

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1041 mg/Kg 104 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1099 70 - 130 mg/Kg 110 C10-C28)

LCS LCS

ICED ICED

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-60389/3-A

**Matrix: Solid** 

**Analysis Batch: 60609** 

Prep Type: Total/NA

Prep Batch: 60389

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	962.4		mg/Kg		96	70 - 130	8	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	953.3		mg/Kg		95	70 - 130	14	20	
C10-C28)										

	LCSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	130		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-31775-A-1-D MS

**Matrix: Solid** 

Analysis Batch: 60609

Cliont	Sample	ın.	Matrix	<b>Snika</b>
Cilett	Sallible	ID.	IVIALI IX	SUINE

Prep Type: Total/NA

Prep Batch: 60389

	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	998	1166		mg/Kg		113	70 - 130
Diesel Range Organics (Over	<50.2	U	998	968.0		mg/Kg		97	70 - 130

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	79		70 - 130

#### QC Sample Results

Client: Etech Environmental & Safety Solutions

Lab Sample ID: 880-31775-A-1-E MSD

Job ID: 890-5059-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

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

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 60389

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.2	U	998	1174		mg/Kg		113	70 - 130	1	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.2	U	998	956.5		mg/Kg		96	70 - 130	1	20
C10-C28)											

**Matrix: Solid** 

Analysis Batch: 60609

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	78		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59870/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

мв мв

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			08/11/23 13:35	1

Lab Sample ID: LCS 880-59870/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 59955** 

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	262.6	-	mg/Kg		105	90 - 110	 

Lab Sample ID: LCSD 880-59870/3-A

**Matrix: Solid** 

Analysis Batch: 59955

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	261.0		ma/Ka		104	90 - 110		20	

Lab Sample ID: 890-5058-A-1-B MS

**Matrix: Solid** 

Analysis Batch: 59955

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	195		249	439.3		ma/Ka		98	90 110	

Lab Sample ID: 890-5058-A-1-C MSD

**Matrix: Solid** 

Analysis Batch: 59955

Alialysis Datell. 55555												
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	195		249	439.8		mg/Kg		98	90 - 110		20	

#### **QC Association Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1 SDG: Lea County NM

**GC VOA** 

Prep Batch: 60474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60474/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 60526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Total/NA	Solid	8021B	60548
MB 880-60474/5-A	Method Blank	Total/NA	Solid	8021B	60474
MB 880-60548/5-A	Method Blank	Total/NA	Solid	8021B	60548
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	8021B	60548
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60548
890-5057-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	60548
890-5057-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	60548

Prep Batch: 60548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Total/NA	Solid	5035	
MB 880-60548/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60548/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60548/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5057-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-5057-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 60708** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Total/NA	Solid	Total BTEX	

#### **GC Semi VOA**

Prep Batch: 60389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Total/NA	Solid	8015NM Prep	
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Total/NA	Solid	8015B NM	60389
MB 880-60389/1-A	Method Blank	Total/NA	Solid	8015B NM	60389
LCS 880-60389/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60389
LCSD 880-60389/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60389
880-31775-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	60389
880-31775-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	60389

Analysis Batch: 60718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Total/NA	Solid	8015 NM	

#### **QC Association Summary**

Client: Etech Environmental & Safety Solutions Project/Site: WEU Federal D Battery

Job ID: 890-5059-1 SDG: Lea County NM

#### HPLC/IC

#### Leach Batch: 59870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Soluble	Solid	DI Leach	
MB 880-59870/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5058-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-5058-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Analysis Batch: 59955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5059-1	SW01	Soluble	Solid	300.0	59870
MB 880-59870/1-A	Method Blank	Soluble	Solid	300.0	59870
LCS 880-59870/2-A	Lab Control Sample	Soluble	Solid	300.0	59870
LCSD 880-59870/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59870
890-5058-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	59870
890-5058-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	59870

J

7

0

10

11

14

#### **Lab Chronicle**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Lab Sample ID: 890-5059-1

Job ID: 890-5059-1

SDG: Lea County NM

Client Sample ID: SW01	Lab Sample ID: 890-5059-1
Date Collected: 08/07/23 12:10	Matrix: Solid
Date Received: 08/09/23 08:15	

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	60548	08/18/23 09:22	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60526	08/19/23 03:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60708	08/21/23 11:16	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60718	08/21/23 11:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	60389	08/16/23 14:53	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60609	08/19/23 12:49	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	59870	08/10/23 14:28	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	59955	08/11/23 16:35	SMC	EET MID

#### **Laboratory References:**

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

**Eurofins Carlsbad** 

Page 14 of 21 8/21/2023 Released to Imaging: 12/22/2023 9:08:07 AM

#### **Accreditation/Certification Summary**

Client: Etech Environmental & Safety Solutions

Job ID: 890-5059-1 Project/Site: WEU Federal D Battery SDG: Lea County NM

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-23-26	06-30-24	
The following analytes	are included in this report, but	t the laboratory is not certific	ed by the governing authority. This list ma	av include analytee for	
the agency does not of	• •	t the laboratory is not certain	ed by the governing authority. This list his	ay include analytes lo	
,	• •	Matrix	Analyte	ay illolude allalytes lol	
the agency does not of	fer certification.	,	, , ,	ay include arialytes lo	

#### **Method Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1 SDG: Lea County NM

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

#### **Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

**Eurofins Carlsbad** 

3

4

5

9

10

\_\_

13

#### **Sample Summary**

Client: Etech Environmental & Safety Solutions

Project/Site: WEU Federal D Battery

Job ID: 890-5059-1

SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5059-1	SW01	Solid	08/07/23 12:10	08/09/23 08:15	0 - 6

14

eurofins Environment Testing Xenco

City, State ZIP:

Midland, Texas 79711

1300 W County Rd 100

Address:

Project Manager: Company Name:

Etech Environmental & Safety Solutions, Inc.

Bill to: (if different)
Company Name:

City, State ZIP:

Erick Herrera

# Chain of Custody , TX (281) 240-4200, Dallas, TX (214) 90

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

Work Order No:

www.xenco.com Page 1 of 1
Work Order Comments
Program: UST/PST∐ PRP∏ Brownfields∏ RRC∭ Superfund∏
State of Project:
Reporting: Level II

Remain   R				6				<				Ch
Preservatii None: NO Cool: Cool H2SO4: H2 H3PO4: HP NaHSO4: NABIS Na2S2O3: NASO3 Zn Acetate+NAOH NaOH+Ascorbic / Sample Co Incider nAPP232: Na Sr TI Sn U \ Va				Ø	8		0	1	The		,	3
Preservatii None: NO Cool: Cool HCL: HC H <sub>2</sub> SQ <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PQ <sub>4</sub> : HP NaHSQ <sub>4</sub> : NaSQ <sub>3</sub> Zn Acetate+NaOh NaOH+Ascorbic A Sample Co Incider nAPP232 Na Sr TI Sn U N 1 245: 1 / 7470 / 7	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	te/Time	Da		jnature)	ved-by: (Sig	Recei		: (Signature	Relinquished by
		s standard terms and conditions circumstances beyond the control enforced unless previously negotiated.	o, its affiliates and subcontractors. It assign curred by the client if such losses are due to enco, but not analyzed. These terms will be e	any to Eurofins Xenc sses or expenses inc mitted to Eurofins X	llent comp y for any lo sample sut	rder from c esponsibility 5 for each :	lid purchase o assume any re d a charge of \$	onstitutes a va and shall not ach project an	of samples c st of samples applied to e	relinquishment only for the cos of \$85.00 will be	document and to will be llable dimum charge	lotice: Signature of this if service. Eurofins Xenu if Eurofins Xenco. A mir
			Cr Co Cu Pb Mn Mo Ni Se /	As Ba Be Cd		10: 8RC	/ SPLP 60	TCLP	ď	to be analyze	nd Metal(s)	Circle Method(s) ar
Remail Princy   Control   Description   De	Sn U V Zn	SiO <sub>2</sub> Na Sr	Ca Cr Co Cu Fe	Ba Be B		exas 11	13PPM T			8 / 6020:		Total 200.7 / 6
					-							
Email encourber.    (281)   (14152   Email encouperechem   Josephiligerechem   Josephi												
Remain Proxide General District   String Freedram   District   String Freedram   District   String Freedram   District   String Freedram					-					-		
Containers   WEU Federal D Battery   Turn Around   Preservative   Preservative   Turn Around   Preser					-							
Custody Seals:   Yes   No   NiA   Temperature Reading:   Yes   No   Containers:   Yes   No   Competed Temperature Reading:   3.44   Sampled   Sa	APP2321448004	P										
Email: elrick@etecheln.com, Josephi@etecheln.com, Josephi@eteche	Incident ID:					С			8.7.2023	s	3	SWC
Trum Around    Preservative   Preser	ample Comments	Sa							Date Sample	Matrix	tification	Sample Ider
Turn Around    Preservative   Preser	Ascorbic Acid: SAPC				- EP/	4	╁├╴	Temperatu	Corrected			otal Containers:
Custody Seals:   Yes   No   Ni Correction Factor:   Yes   No   Ni A   Correction Factor:   Yes   Ni A   Yes	ate+NaOH: Zn			_	A ME	6	┝	ure Reading	Tempera	No	_	ample Custody Sea
Trum Around  WEU Federal D Battery  Turn Around  Routine  Rush  Code  Preservati  None: NO  St. Location:  Lea County, New Mexico  Edyte Konan  TAT starts the day received by 4:30pm  the lab, if received by 4:30pm  PLE RECEIPT  Temp Blank:  Yes No  Wet Ice:  Yes No  Thermometer ID:  The month of the month of the lab, if received by 4:30pm  TAT starts the day received	3: NaSO3	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>			-	ပ်	0	n Factor:	Correction	3		cooler Custody Seal
Trum Around  Turn	1. NABIS	NaHSO		_		Į,	3	eter iD:	Thermom			amples Received In
t Name: WEU Federal D Battery  Turn Around  Turn Around  Turn Around  Pres.  t Number: 18342  Di Routine  Due Date: 5 TAT  Edyte Konan  The lab, if received by 4:30pm	HP	H <sub>3</sub> PO <sub>4</sub> : 1				8	$\vdash$		Yes No	mp Blank:		SAMPLE RECEI
Name:     WEU Federal D Battery     Turn Around     Preservati       Number:     18342     ☑ Routine     ☑ Rush     Code     ☐ Code     ☐ Code     ☐ Code     ☐ Code: Cool: C		H <sub>2</sub> SO <sub>4</sub> : H				1:30pm	received by	the lab, i	)			°O#:
Name:     WEU Federal D Battery     Turn Around     Preservation:       Number:     18342     ☑ Routine     ☐ Rush     Code     ☐ Code		HCL: HC		0		ived by	s the day rece	TAT start		Edyte Konar		ampler's Name:
Name: WEU Federal D Battery Turn Around Preservation  Name: Name: Name: Name: Routine □ Rush Code None: No	<u> </u>	Cool: Co				AT		Due Dat	∕lexico	ounty, New I	Lea C	Project Location:
Name: WEU Federal D Battery Turn Around ANALYSIS REQUEST		None: N			Pres. Code			Routin		18342		roject Number:
[(281)///-4132 Email: erick@etechenv.com, joseph@etechenv.com	eservative Codes	Pr	ANALYSIS REQUEST				urn Around	-1	attery	Federal D B	WEU	roject Name:
		מצורים. רוסים ריים		seph@etecnenv	.com, Jo	etecneny	ail: erick@	En		152	(281)777-4	Phone:

Carlsbad, NM 88220 Phone 575-988-3199 Fax: 575-988-3199

Midland State, Zip: TX, 79701

**Eurofins Carlsbad** 1089 N Canal St.

13

Chain of Custody Record

eurofins 💸

**Environment Testing** 

Project Name<sup>.</sup> WEU Federal D Battery Sample Identification - Client ID (Lab ID) Empty Kit Relinquished by SW01 (890-5059-1) 432-704-5440(Tel) 1211 W Florida Ave Eurofins Environment Testing South Centr vote Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC. Deliverable Requested I II III, IV Other (specify) Possible Hazard Identification elinquished by elinquished by linquished by Custody Seals Intact. lient Information ipping/Receiving Yes ⊳ No (Sub Contract Lab) Custody Seal No Project #: 88000073 Due Date Requested 8/15/2023 Phone: PO# TAT Requested (days) Date/Time Primary Deliverable Rank 2 Sample Date 8/7/23 Date Mountair Sample Time 12 10 (C=comp, Sample Type Preservation Code: Company Company Matrix Solid Jessica Kramer@et.eurofinsus com Kramer Jessica Field Filtered Sample (Yes or No) NELAP - Louisiana, NELAP - Texas Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

| Disposal Part | Disposa Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Received by 8015MOD\_NM/8015NM\_S\_Prep Full TPH Cooler Temperature(s) °C and Other Remarks × Return To Client 8015MOD\_Calc × 300\_ORGFM\_28D/DI\_LEACH Chloride × 8021B/5035FP\_Calc Mid - BTEX Analysis Requested Total\_BTEX\_GCV × Disposal By Lab State of Origin New Mexico Carrier Tracking No(s) Nethod of Shipment Archive For ★ Total Number of containers B NaOH
C - Zn Acetate
D Nitric Acid
E NaHSO4
F MeOH
G Amchlor
H Ascorbic Acid COC No: 890-1419 1 Page 1 of 1 A-HCL Preservation Codes 390-5059-1 Ice
J DI Water
C EDTA
EDA Special Instructions/Note: M Hexane
N None
O AsNaO2
P Na2O4S
Q-Na2SO3
R Na2S2O3
S-H2SO4
T TSP Dodecahydrate
U-Acetone
V MCACA
W pH 4-5
Y Trizma Ver 06/08/2021 Company Company other (specify) Months

#### **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5059-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 5059 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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Released to Imaging: 12/22/2023 9:08:07 AM

#### **Login Sample Receipt Checklist**

Client: Etech Environmental & Safety Solutions

Job Number: 890-5059-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 08/10/23 12:57 PM

Login Number: 5059 List Number: 2

Creator: Rodriguez, 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 ampered 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	
s the Field Sampler's name present on COC?	True	
here 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	
ppropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	N/A	

3

A

5

o

9

11

13

# **APPENDIX G**

# **NMOCD Notifications**

P.O. Box 62228 Midland • TX • 79711 • Tel: 432-563-2200 • Fax: 432-563-2213



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

All,

Forty Acres Energy anticipates conducting confirmation soil sampling activities at the following sites on August 7<sup>th</sup> and August 11<sup>th</sup>.

Proposed Dates: August 7, 2023, August 8, 2023, August 9, 2023, August 10, 2023

Proposed Timeframe: 0800 – 1700 hrs. Site Name: West Eumont Unit Seale Battery

Incident Number: nAPP2222254057

Proposed Dates: August 7, 2023, August 8, 2023, August 9, 2023, August 10, 2023

Proposed Timeframe: 0800 - 1700 hrs.

Site Name: West Eumont Unit GM State Battery

Incident Number: nAPP2228734147

Proposed Dates: August 7, 2023, August 8, 2023, August 9, 2023, August 10, 2023

Proposed Timeframe: 0800 – 1700 hrs. Site Name: West Eumont Unit 522 Incident Number: nAPP2222156433

Proposed Dates: August 7, 2023, August 8, 2023, August 9, 2023, August 10, 2023

Proposed Timeframe: 0800 – 1700 hrs. Site Name: West Eumont Federal D Battery

Incident Number: nAPP2321448004

Thanks,

#### Joseph S. Hernandez

Senior Managing Geologist



Work: (432) 305-6413 Cell: (281) 702-2329

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

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

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

CONDITIONS

Action 267604

#### **CONDITIONS**

Operator:	OGRID:
FORTY ACRES ENERGY, LLC	371416
11757 KATY FWY	Action Number:
HOUSTON, TX 77079173	267604
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

C B	reated y	Condition	Condition Date
	nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	12/21/2023