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

)

Page 1 of 211

Incident ID	NMAP1825459428	
District RP	2RP-4967	
Facility ID	N/A	
Application ID	pMAP1825459097	

# **Release Notification**

# **Responsible Party**

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD)
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

# **Location of Release Source**

Latitude 32.151330\_

Longitude -103.96267\_ (NAD 83 in decimal degrees to 5 decimal places)

Site Name Elk Wallow 11 State #001H Battery	Site Type Tank Battery
Date Release Discovered 8/27/18 at 2pm	API# 30-015-37588

Unit Letter	Section	Township	Range	County
D	11	258	29E	Eddy

Surface Owner: X State Federal Tribal Private (Name: \_\_\_\_\_

# **Nature and Volume of Release**

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

Crude Oil	Volume Released (bbls) 33.12	Volume Recovered (bbls) 21.56
Produced Water	Volume Released (bbls) 723.13	Volume Recovered (bbls) 468.44
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
🗌 Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Battery was struck by lightning which caused a fire that spread to all the tanks in the west tank battery containment. All the associated wells had already been shut at the time of the event. The fire department extinguished the fire.

eceived_by OCD: 11/4/202	1 2:30:53 PM tate of New Mexico		Page 2 of 2
		Incident ID	NMAP1825459428
age 2	Oil Conservation Division	District RP	2RP-4967
		Facility ID	N/A
		Application ID	pMAP1825459097
Was this a major release as defined by 19.15.29.7(A) NMAC? Yes No	If YES, for what reason(s) does the responsible pa An unauthorized release of a volume, excluding ga		
	otice given to the OCD? By whom? To whom? W d Mike Bratcher (NMOCD), Maria Pruett (NMOCD		

## **Initial Response**

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

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

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

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

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

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

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

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

Printed Name: Kyle Littrell	Title: SH&E Coordinator
Signature:	Date: <u>9/11/2018</u>
email:Kyle_Littrell@xtoenergy.com	Telephone: <u>432-221-7331</u>
OCD Only Received by:	Date:09/11/18

Received by OCD: 11/4/2021 2:30:53 PM Form C-141 State of New Mexico

Oil Conservation Division

Incident ID	NMAP1825459428
District RP	2RP-4967
Facility ID	
Application ID	pMAP1825459097

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# Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	$\frac{40}{\text{bgs}}$ (ft
Did this release impact groundwater or surface water?	$\Box$ Yes $\boxtimes$ 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?	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No ☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of a wetland?	
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
	Yes 🗌 No

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

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

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.

Field data

- Data table of soil contaminant concentration data
- $\boxtimes$  Depth to water determination
- Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-mile of the lateral extents of the release
- $\boxtimes$  Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

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Received by OCD: 11/4/202	<i>1 2:30:53 PM</i> State of New Mexico			<b>Page 4 of 211</b>
			Incident ID	NMAP1825459428
Page 4	Oil Conservation Division		District RP	2RP-4967
			Facility ID	
			Application ID	pMAP1825459097
regulations all operators are republic health or the environmed failed to adequately investigat addition, OCD acceptance of a and/or regulations. Printed Name:	a Atutt	fications and perform co DCD does not relieve the eat to groundwater, surfa responsibility for compl	prrective actions for rele coperator of liability sho ce water, human health iance with any other feo rdinator	ases which may endanger ould their operations have or the environment. In
OCD Only Received by:Robert_I	Hamlet	Date: <u>5/8</u> /	/2019	

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Oil Conservation Division

Incident ID	NMAP1825459428
District RP	2RP-4967
Facility ID	
Application ID	

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# Closure

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

and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name:	Adrian Baker	Title:	<u>Environmental Co</u> ordinator	
Signature:	Advion Bats	Date:10/01/21		
email: <u>adria</u>	n.baker@exxonmobil.com	Telephone:	432-236-3808	
OCD Only				
OCD Only				
Received by:		_ Date:		
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.				
Closure Approved	by: <u>Jennifer Nobui</u> Jennifer Nobui	Date:	02/08/2022	
Printed Name:	Jennifer Nobui	Title:	Environmental Specialist A	

WSP USA

3300 North "A" Street Building 1, Unit 222 Midland, Texas 79705 432.704.5178

October 1, 2021

New Mexico Oil Conservation Division District II 811 South First Street Artesia, New Mexico 88210

RE: Closure Request Elk Wallow 11 State #001H Battery Incident Number NMAP1825459428 Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request as a follow-up to the Deferral Request submitted February 28, 2020. This Closure Request details excavation and soil sampling activities completed at the Elk Wallow 11 State #001H Battery (Site) located in Unit D, Section 11, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1), following final abandonment of the facility to address the remaining impacted soil previously approved for deferral. Based on the additional excavation and soil sampling activities described below, XTO is requesting no further action (NFA) for Incident Number NMAP1825459428.

#### BACKGROUND

On August 27, 2018, the battery at the Site was struck by lightning, causing a fire that spread to the aboveground storage tanks (ASTs) in the western tank battery containment. The incident caused a release of 723.13 barrels (bbls) of produced water and 33.12 bbls of crude oil. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 468.44 bbls of produced water and 21.56 bbls of crude oil were recovered. XTO gave immediate verbal notification to the New Mexico Oil Conservation Division (NMOCD) and, on September 11, 2018, reported the release on a Release Notification and Corrective Action Form C-141 (Form C-141). XTO conducted both on-pad and off-pad assessment, delineation, and excavation activities. An estimated 8,220 cubic yards of impacted soil were excavated from the Site; however, residual chloride-impacted soil was left in place on pad in the area of floor sample FS11 where electrical equipment was located, in order to comply with XTO's safety policy regarding earth-moving activities within two feet of active pipelines, electrical equipment, and flow lines. An estimated 60 cubic yards of impacted soil remained in place.

XTO requested deferral of final remediation for this release event and proposed to complete remediation in the area of floor sample FS11 during any future major construction, alteration, or final abandonment of the Site. NMOCD approved the Deferral Request via email on April 27, 2020.



District II Page 2

The Deferral Request detailed site characterization according to Table 1, 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). Based on the site characterization, the following Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

In April 2021, final abandonment of the Site began. Once all production equipment, electrical lines, and flow lines had been removed from the Site, final remediation of the approved deferred area near floor sample FS11 was scheduled.

#### **EXCAVATION ACTIVITIES AND SOIL ANALYTICAL RESULTS**

Between August 3, 2021 and September 2, 2021, WSP personnel were at the Site to oversee excavation activities to remove chloride-impacted soil left in place in the area around floor sample FS11. The original excavation, deferral area, and location of FS11 are depicted on Figure 1.

To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a photo-ionization detector (PID) and Hach<sup>®</sup> chloride QuanTab<sup>®</sup> test strips, respectively. The excavation was completed to a depth ranging from 10 feet to 12 feet bgs. Upon completion of excavation activities, 5-point composite floor samples were collected from the floor and sidewalls of the excavation. Composite samples FS01 through FS07 were collected from the floor of the excavation from depths ranging from 10 feet to 12 feet bgs. Composite sidewall samples SW01 through SW14 were collected from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the sidewalls of the excavation from depths ranging from the ground surface to 10 feet bgs.

The excavation soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The excavation extent and excavation soil sample locations are depicted on Figure 2. Photographic documentation was conducted during excavation activities and photos are included in Attachment 1.

vsp

District II Page 3

Laboratory analytical results for floor samples FS01 through FS07 and sidewall samples SW01 through SW07, SW09, SW13, and SW14, collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for sidewall samples SW08, SW10, SW11, and SW12 indicated that chloride concentrations initially exceeded the Closure Criteria. Additional soil was removed from the areas around sidewall samples SW08, SW10, SW11, and SW12 and subsequent sidewall samples SW13 and SW14 were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 2.

#### **CLOSURE REQUEST**

Site assessment and excavation activities were conducted at the Site to address the deferred area near initial floor sample FS11. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the final excavation soil sample analytical results, XTO respectfully requests NFA for Incident Number NMAP1825459428, and will proceed with final reclamation of the abandoned facility.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096 or Ashley.Ager@wsp.com.

Sincerely,

WSP USA, INC.

Mouissey

Tacoma Morrissey Consultant Geologist

Ashley L. Ager

Ashley L. Ager, M.S., P.G. Managing Director, Geologist

cc: Shelby Pennington, XTO Adrian Baker, XTO New Mexico State Land Office

Attachments:

Figure 1Deferral AreaFigure 2Excavation Soil Sample LocationsTable 1Laboratory Analytical ResultsAttachment 1Photographic Log



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Attachment 2 Laboratory Analytical Reports

# FIGUR

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#### Table 1

Soil Analytical Results Elk Wallow 11 State #001H Battery Incident Number NMAP1825459428 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 C	losure Criteria (NM	AC 19.15.29)	10	50	NE	NE	NE	NE	100	600
Deferred Sample										
FS11	10/11/2018	3.5	< 0.00201	< 0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	713
<b>Excavation Floor Sa</b>	amples									
FS01	08/04/2021	12	< 0.00198	< 0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	24.1
FS02	08/04/2021	12	< 0.00200	< 0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	580
FS03	08/04/2021	10	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	17.4
FS04	08/04/2021	10	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	428
FS05	08/04/2021	12	< 0.00201	< 0.00402	<50.0	50.7	<50.0	50.7	50.7	327
FS06	08/23/2021	12	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	401
FS07	08/23/2021	12	< 0.00201	< 0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	527
<b>Excavation Sidewal</b>	l Samples									
SW01	08/03/2021	0 - 10	< 0.00202	< 0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	399
SW02	08/03/2021	0 - 10	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	350
SW03	08/03/2021	0 - 10	< 0.00201	< 0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	398
SW04	08/03/2021	0 - 10	< 0.00198	< 0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	516
SW05	08/03/2021	0 - 10	< 0.00200	< 0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	275
SW06	08/03/2021	0 - 10	< 0.00199	< 0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	228
SW07	08/04/2021	0 - 10	< 0.00200	< 0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	34.6
SW08	08/10/2021	0 - 10	< 0.00200	< 0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	719
SW09	08/04/2021	0 - 10	< 0.00199	< 0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	17.4
SW10	08/10/2021	0 - 10	< 0.00201	< 0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,090
SW11	08/13/2021	0 - 10	< 0.00200	< 0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	763
SW12	08/13/2021	0 - 10	< 0.00200	< 0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	731

#### Table 1

#### Soil Analytical Results Elk Wallow 11 State #001H Battery Incident Number NMAP1825459428 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Clo	osure Criteria (NM	AC 19.15.29)	10	50	NE	NE	NE	NE	100	600
SW13	08/23/2021	0 - 10	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	20.7
SW14	08/23/2021	0 - 10	< 0.00202	< 0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	204

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

**BOLD** - indicates results exceed the higher of the background sample result or applicable regulatory standard Greyed data represents samples that were excavated

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PHOTOGRAPHIC LOG						
Elk Wallow 11 State #001H Battery Eddy County, New Mexico	NMAP1825459428					
	Elk Wallow 11 State #001H Battery					





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# 🛟 eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

# Laboratory Job ID: 890-1044-1

Laboratory Sample Delivery Group: WSP TE012921045 Client Project/Site: Elk Wallow II

# For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/5/2021 7:57:39 PM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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

LINKS **Review your project** results through **Total** Access Have a Question? Ask-The Expert Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/8/2022 3:41:54 PM

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Laboratory Job ID: 890-1044-1 SDG: WSP TE012921045

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2

Client: WSP USA Inc. Project/Site: Elk Wallow II

Job ID: 890-1044-1 SDG: WSP TE012921045

Qualifiers		- 3
GC VOA		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	_
F2	MS/MSD RPD exceeds control limits	5
S1-	Surrogate recovery exceeds control limits, low biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VO	Α	
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	_
F2	MS/MSD RPD exceeds control limits	8
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		9
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	10
<u></u>		_

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

#### **Case Narrative**

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1044-1 SDG: WSP TE012921045

#### Job ID: 890-1044-1

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1044-1

#### Receipt

The sample was received on 8/4/2021 10:50 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 5.8°C

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

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

## **Client Sample Results**

RL

0.00198

0.00198

0.00198

0.00397

0.00198

0.00397

0.00397

Limits

70 - 130

70 - 130

Result Qualifier

<0.00198 U

<0.00198 U

<0.00198 U

<0.00397 U

<0.00198 U

<0.00397 U

<0.00397 U

%Recovery Qualifier

102

95

Job ID: 890-1044-1 SDG: WSP TE012921045

# **Client Sample ID: SW04**

Date Collected: 08/03/21 14:45 Date Received: 08/04/21 10:50

Sample Depth: 0 - 10

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

Project/Site: Elk Wallow II

Lab Sample ID: 890-1044-1

Analyzed

08/05/21 12:54

08/05/21 12:54

08/05/21 12:54

08/05/21 12:54

08/05/21 12:54

08/05/21 12:54

08/05/21 12:54

Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

1

1

Dil Fac

5

mg/Kg	08/05/21	09:00
mg/Kg	08/05/21	09:00
mg/Kg	08/05/21	09:00

D

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Prepared	Analyzed
08/05/21 09:00	08/05/21 12:54
08/05/21 09:00	08/05/21 12:54

Prepared

08/05/21 09:00

08/05/21 09:00

08/05/21 09:00

08/05/21 09:00

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

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/05/21 08:40	08/05/21 15:13	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/05/21 08:40	08/05/21 15:13	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/05/21 08:40	08/05/21 15:13	1
Total TPH	<50.0	U	50.0	mg/Kg		08/05/21 08:40	08/05/21 15:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			08/05/21 08:40	08/05/21 15:13	1
o-Terphenyl	107		70 - 130			08/05/21 08:40	08/05/21 15:13	1

Method: 300.0 - Anions	Ion Chromatography -	graphy - Soluble			
Analyte	Result	Qualifier	RL		

Analyte	Result C	Qualifier R	. Un	nit D	Prepa	red Analyzed	Dil Fac
Chloride	516	5.0	) mç	g/Kg		08/05/21 16:09	1

#### **Surrogate Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1044-1 SDG: WSP TE012921045

Prep Type: Total/NA

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

#### Matrix: Solid

<b>_</b>				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
890-1039-A-1-B MSD	Matrix Spike Duplicate	88	82	·	
890-1039-A-1-G MS	Matrix Spike	105	66 S1-		6
890-1044-1	SW04	102	95		
LCS 880-6048/1-A	Lab Control Sample	115	102		
LCSD 880-6048/2-A	Lab Control Sample Dup	118	104		
MB 880-6048/5-A	Method Blank	76	93		8
Surrogate Legend					
BFB = 4-Bromofluorobe	nzene (Surr)				9
DFBZ = 1,4-Difluoroben	zene (Surr)				

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

#### Matrix: Solid Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) Lab Sample ID **Client Sample ID** (70-130) 820-1521-A-41-F MS Matrix Spike 87 82 820-1521-A-41-G MSD Matrix Spike Duplicate 77 71 890-1044-1 SW04 107 101 LCS 880-6092/2-A Lab Control Sample 91 89 LCSD 880-6092/3-A Lab Control Sample Dup 95 96 MB 880-6092/1-A 97 Method Blank 88

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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# **QC Sample Results**

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

Lab Sample ID: MB 880-6048/	5-A							Client Sa	ample ID: Metho	d Blank
Matrix: Solid									Prep Type:	Total/NA
Analysis Batch: 6095									Prep Bate	ch: 6048
	N	/IB MB								
Analyte	Resu	ult Qualifi	er F	RL.	Unit		D	Prepared	Analyzed	Dil Fac
Benzene	<0.0020	00 U	0.0020	00	mg/K	g	_	08/05/21 09:00	08/05/21 12:12	1
Toluene	<0.0020	00 U	0.0020	00	mg/K	g		08/05/21 09:00	08/05/21 12:12	1
Ethylbenzene	<0.0020	00 U	0.0020	00	mg/K	g		08/05/21 09:00	08/05/21 12:12	1
m-Xylene & p-Xylene	<0.0040	00 U	0.0040	00	mg/K	g		08/05/21 09:00	08/05/21 12:12	1
o-Xylene	<0.0020	00 U	0.0020	00	mg/K	g		08/05/21 09:00	08/05/21 12:12	1
Xylenes, Total	<0.0040	00 U	0.0040	00	mg/K	g		08/05/21 09:00	08/05/21 12:12	1
Total BTEX	<0.0040	00 U	0.0040	00	mg/K	g		08/05/21 09:00	08/05/21 12:12	1
	N	MB MB								
Surrogate	%Recove	ery Qualif	ier Limits					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		76	70 - 130					08/05/21 09:00	08/05/21 12:12	1
		93	70 - 130	1				08/05/21 09:00	08/05/21 12:12	1
1,4-Difluorobenzene (Surr) Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095							С	lient Sample	ID: Lab Control Prep Type: <sup>-</sup> Prep Bate	Total/NA
Lab Sample ID: LCS 880-6048							С	lient Sample		Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid			Spike	LCS	LCS		С	lient Sample	Prep Type:	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte			Spike Added	Result		Unit	С	D_%Rec	Prep Type: * Prep Bate %Rec. Limits	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095			Spike 	<b>Result</b> 0.09471		Unit mg/Kg	С	- <mark>D %Rec</mark>	Prep Type: " Prep Bate %Rec. Limits 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte			Spike Added	Result			С	D_%Rec	Prep Type: * Prep Bate %Rec. Limits	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene			Spike 	<b>Result</b> 0.09471		mg/Kg	С	- <mark>D %Rec</mark>	Prep Type: " Prep Bate %Rec. Limits 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene			Spike Added 0.100 0.100 0.100 0.200	<b>Result</b> 0.09471 0.09022		mg/Kg mg/Kg	C	D %Rec	Prep Type: Prep Bate %Rec. Limits 70 - 130 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene			Spike Added 0.100 0.100 0.100	Result 0.09471 0.09022 0.09327		mg/Kg mg/Kg mg/Kg	<b>C</b>	<b>D</b> % <b>Rec</b>	Prep Type: 7 Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene			Spike Added 0.100 0.100 0.100 0.200	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg	C	- <mark>D %Rec</mark>	Prep Type: 7 Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	1/1-A		Spike Added 0.100 0.100 0.100 0.200	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg	C	- <mark>D %Rec</mark>	Prep Type: 7 Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	1/1-A	cs	Spike           Added           0.100           0.100           0.100           0.200           0.100	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg	C	- <mark>D %Rec</mark>	Prep Type: 7 Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate	l/1-A 	cs	Spike           Added           0.100           0.100           0.100           0.100           0.100           0.100           0.200           0.100           Limits	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg	C	- <mark>D %Rec</mark>	Prep Type: 7 Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	LCS LC %Recovery Q 115 102	cs	Spike           Added           0.100           0.100           0.100           0.100           0.100           0.100           0.200           0.100           Limits           70 - 130	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg		D %Rec 95 90 93 97 97	Prep Type: * Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA ch: 6048
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	LCS LC %Recovery Q 115 102	cs	Spike           Added           0.100           0.100           0.100           0.100           0.100           0.100           0.200           0.100           Limits           70 - 130	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg		D %Rec 95 90 93 97 97	Prep Type: Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA ch: 6048
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-604 Matrix: Solid	LCS LC %Recovery Q 115 102	cs	Spike           Added           0.100           0.100           0.100           0.100           0.100           0.100           0.200           0.100           Limits           70 - 130	Result 0.09471 0.09022 0.09327 0.1935		mg/Kg mg/Kg mg/Kg mg/Kg		D %Rec 95 90 93 97 97	Prep Type: Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 Prep Type: Prep Type: Prep Type: Prep Same	Total/NA ch: 6048  ple Dup Total/NA
Lab Sample ID: LCS 880-6048 Matrix: Solid Analysis Batch: 6095 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-604	LCS LC %Recovery Q 115 102	cs	Spike           Added           0.100           0.100           0.100           0.100           0.100           0.100           0.200           0.100           Limits           70 - 130	Result 0.09471 0.09022 0.09327 0.1935 0.09658		mg/Kg mg/Kg mg/Kg mg/Kg		D %Rec 95 90 93 97 97	Prep Type: Prep Bate %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Total/NA ch: 6048  ple Dup Total/NA

118

<0.00199 U F2 F1

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
o-Xylene			0.100	0.09682	r	ng/Kg	97	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1932	r	mg/Kg	97	70 - 130	0	35
Ethylbenzene			0.100	0.09279	r	ng/Kg	93	70 - 130	1	35
Toluene			0.100	0.08938	r	ng/Kg	89	70 - 130	1	35
Benzene			0.100	0.09386	r	ng/Kg	94	70 - 130	1	35

1,4-Difluorobenzene (Surr)	104		70 - 130								
Lab Sample ID: 890-1039-A-1-B M	SD						Client S	ample ID	: Matrix S		
Matrix: Solid									Prep '	Type: Tot	tal/NA
Analysis Batch: 6095									Pre	p Batch:	<b>6048</b>
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit

70 - 130

0.0990

#### Job ID: 890-1044-1 SDG: WSP TE012921045

7

Prep	Batch	: 6048
C.		RPD
s	RPD	Limit

53

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70 - 130

29

4-Bromofluorobenzene (Surr)

Benzene

0.02866 F2 F1

mg/Kg

35

# **QC Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow II

Lab Sample ID: 890-1039-A-	1-B MSD					CI	ient Sa	ample IC	: Matrix Sp	ike Dup	licate
Matrix: Solid										ype: Tot	
Analysis Batch: 6095									Pre	p Batch:	6048
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	< 0.00199	U F1	0.0990	0.04477	F1	mg/Kg		44	70 - 130	35	35
Ethylbenzene	<0.00199	U F2 F1	0.0990	0.04146	F2 F1	mg/Kg		40	70 - 130	45	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.198	0.07971	F2 F1	mg/Kg		39	70 - 130	43	35
o-Xylene	<0.00199	U F2 F1	0.0990	0.03993	F2 F1	mg/Kg		39	70 <sub>-</sub> 130	42	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	88		70 - 130								
1,4-Difluorobenzene (Surr)	82		70 - 130								
Lab Sample ID: 890-1039-A-	1.G MS							Client	Sample ID:	Matrix	Sniko
Matrix: Solid								Chem		ype: Tot	
Analysis Batch: 6095										p Batch:	
Analysis Batch. 0055	Sample	01-	Spike	MS	MS				%Rec.	p Batch	0040

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	<0.00199	U F2 F1	0.0996	0.04937	F1	mg/Kg		50	70 - 130
Toluene	<0.00199	U F1	0.0996	0.06350	F1	mg/Kg		62	70 - 130
Ethylbenzene	<0.00199	U F2 F1	0.0996	0.06555	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.199	0.1236	F1	mg/Kg		61	70 - 130
o-Xylene	<0.00199	U F2 F1	0.0996	0.06101	F1	mg/Kg		60	70 - 130
	MS	MS							

	1013	WS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130

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

Lab Sample ID: MB 880-6092/1-A Matrix: Solid Analysis Batch: 6104								Client S	ample ID: Metho Prep Type: <sup>-</sup> Prep Bate	Total/NA
	МВ	МВ								
Analyte	Result	Qualifier	RL	-	Unit		D F	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	)	mg/K	g	08/0	05/21 08:40	08/05/21 12:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	)	mg/K	g	08/0	05/21 08:40	08/05/21 12:50	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	)	mg/K	(g	08/0	05/21 08:40	08/05/21 12:50	1
Total TPH	<50.0	U	50.0	)	mg/K	ģ	08/0	05/21 08:40	08/05/21 12:50	1
	МВ	МВ								
Surrogate	%Recovery	Qualifier	Limits				F	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	-			08/0	05/21 08:40	08/05/21 12:50	1
o-Terphenyl	97		70 - 130				08/0	05/21 08:40	08/05/21 12:50	1
Lab Sample ID: LCS 880-6092/2-A							Clien	t Sample	ID: Lab Control	Sample
Matrix: Solid									Prep Type: *	Total/NA
Analysis Batch: 6104									Prep Bate	ch: 6092
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			1000	918.4		mg/Kg		92	70 - 130	

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Job ID: 890-1044-1

SDG: WSP TE012921045

# **QC Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow II

#### Job ID: 890-1044-1 SDG: WSP TE012921045

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

Lab Sample ID: LCS 880-609 Matrix: Solid	92/2-A						Client	Sample		Type: Tot	al/N/
Analysis Batch: 6104									Pre	p Batch:	609
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	870.4		mg/Kg		87	70 - 130		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	91		70 - 130								
p-Terphenyl	89		70 - 130								
Lab Sample ID: LCSD 880-6	092/3-A					Clie	nt Sam	nple ID: I	Lab Contro	I Sample	e Du
Matrix: Solid									Prep 1	Type: Tot	al/N
Analysis Batch: 6104									Pre	p Batch:	609
-			Spike	LCSD	LCSD				%Rec.	-	RF
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lin
Gasoline Range Organics			1000	869.5		mg/Kg		87	70 - 130	5	
GRO)-C6-C10											
Diesel Range Organics (Over C10-C28)			1000	931.5		mg/Kg		93	70 - 130	7	
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
-Chlorooctane	95		70 - 130								
p-Terphenyl	96		70 - 130								
			70 - 130					Client	Sample ID	: Matrix	Spil
Lab Sample ID: 820-1521-A-			70 - 130					Client		: Matrix Type: Tot	
Lab Sample ID: 820-1521-A- Matrix: Solid			70 - 130					Client	Prep 1		al/N
Lab Sample ID: 820-1521-A- Matrix: Solid	41-F MS	Sample	70 - 130 Spike	MS	MS			Client	Prep 1	Type: Tot	al/N
ab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104	-41-F MS Sample	Sample Qualifier			MS Qualifier	Unit	D	Client %Rec	Prep 1 Pre	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics	-41-F MS Sample	-	Spike			Unit mg/Kg	<u>D</u>		Prep 1 Pre %Rec.	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	-41-F MS Sample	Qualifier U F1 F2	Spike Added	Result			<u>D</u>	%Rec	Prep 1 Pre %Rec. Limits	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	-41-F MS Sample 	Qualifier U F1 F2 U	Spike Added 995	Result 906.6		mg/Kg	<u>D</u>	<b>%Rec</b> 88	Prep 1 Pre %Rec. Limits 70 - 130	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	-41-F MS Sample 	Qualifier U F1 F2 U	Spike Added 995	Result 906.6		mg/Kg	<u>D</u>	<b>%Rec</b> 88	Prep 1 Pre %Rec. Limits 70 - 130	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	-41-F MS Sample 	Qualifier U F1 F2 U	Spike Added 995 995	Result 906.6		mg/Kg	<u> </u>	<b>%Rec</b> 88	Prep 1 Pre %Rec. Limits 70 - 130	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane	-41-F MS Sample Result <50.0 <50.0 MS %Recovery	Qualifier U F1 F2 U	Spike Added 995 995 Limits	Result 906.6		mg/Kg	<u> </u>	<b>%Rec</b> 88	Prep 1 Pre %Rec. Limits 70 - 130	Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Sasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane I-Terphenyl	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82	Qualifier U F1 F2 U	<b>Spike</b> <u>Added</u> 995 995 <u>Limits</u> 70 - 130	Result 906.6		mg/Kg		%Rec 88 87	Prep 1 Pre %Rec. Limits 70 - 130	Type: Tot p Batch:	al/N 609
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A-	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82	Qualifier U F1 F2 U	<b>Spike</b> <u>Added</u> 995 995 <u>Limits</u> 70 - 130	Result 906.6		mg/Kg		%Rec 88 87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130	Type: Tot p Batch:	al/N 609
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A- Matrix: Solid	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82	Qualifier U F1 F2 U	<b>Spike</b> <u>Added</u> 995 995 <u>Limits</u> 70 - 130	Result 906.6		mg/Kg		%Rec 88 87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 9: Matrix Sp Prep 1	Type: Tot p Batch: 	lica al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate -Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A- Matrix: Solid	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82 -41-G MSD	Qualifier U F1 F2 U	<b>Spike</b> <u>Added</u> 995 995 <u>Limits</u> 70 - 130	<b>Result</b> 906.6 869.0		mg/Kg		%Rec 88 87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 9: Matrix Sp Prep 1	Type: Tot p Batch:  bike Dup Type: Tot	al/N
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82 -41-G MSD Sample	Qualifier U F1 F2 U MS Qualifier	Spike           Added           995           995           Limits           70 - 130           70 - 130	Result           906.6           869.0           MSD	Qualifier	mg/Kg		%Rec 88 87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 9: Matrix Sp Prep 1 Pre	Type: Tot p Batch:  bike Dup Type: Tot	lica al/N i 609
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82 -41-G MSD Sample Result	Qualifier U F1 F2 U MS Qualifier	Spike           Added           995           995           295           Limits           70 - 130           70 - 130           70 - 130	Result           906.6           869.0           MSD           Result	Qualifier	mg/Kg mg/Kg Cl	ient Sa	%Rec 88 87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 190 70 - 190 70 - 190 70 - 190 70 - 190	Dike Dup pBatch: Dike Dup Dype: Tot pBatch:	lica al/N i 609 lica al/N i 609 RP
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82 -41-G MSD Sample Result	Qualifier U F1 F2 U MS Qualifier Qualifier U F1 F2	Spike           Added           995           995           295           130           70 - 130           70 - 130           70 - 130           Added	Result           906.6           869.0           MSD           Result	Qualifier MSD Qualifier	mg/Kg mg/Kg Cl	ient Sa	%Rec 88 87 ample ID	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 190 70 - 190 70 - 190 70 - 190 70 - 190 70 - 190 70 - 190	Dike Dup Type: Tot p Batch: p Batch: 	lica al/N al/N al/N 609 RF Lin
Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82 41-G MSD Sample Result <50.0 <50.0 <50.0	Qualifier U F1 F2 U MS Qualifier Qualifier U F1 F2	Spike           Added           995           995           995           Limits           70 - 130           70 - 130           70 - 130           995           Added           995	Result           906.6           869.0           MSD           Result           682.3	Qualifier MSD Qualifier	mg/Kg mg/Kg Cl <u>Unit</u> mg/Kg	ient Sa	%Rec           88           87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 Prep 1 Pre %Rec. Limits 70 - 130	Dike Dup Type: Tot p Batch: Type: Tot p Batch: 	lica al/N al/N 609 RF Lin
2-Terpheny/ Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane 2-Terpheny/ Lab Sample ID: 820-1521-A- Matrix: Solid Analysis Batch: 6104 Analyte Basoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	-41-F MS Sample Result <50.0 <50.0 MS %Recovery 87 82 41-G MSD Sample Result <50.0 <50.0 <50.0	Qualifier U F1 F2 U MS Qualifier U F1 F2 U U MSD	Spike           Added           995           995           995           Limits           70 - 130           70 - 130           70 - 130           995           Added           995	Result           906.6           869.0           MSD           Result           682.3	Qualifier MSD Qualifier	mg/Kg mg/Kg Cl <u>Unit</u> mg/Kg	ient Sa	%Rec           88           87	Prep 1 Pre %Rec. Limits 70 - 130 70 - 130 70 - 130 Prep 1 Pre %Rec. Limits 70 - 130	Dike Dup Type: Tot p Batch: Type: Tot p Batch: 	icat

# **QC Sample Results**

Job ID: 890-1044-1
SDG: WSP TE012921045

Project/Site: Elk Wallow II

Client: WSP USA Inc.

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

Lab Sample ID: MB 880-6112/1-A Matrix: Solid												ample ID: Prep	Type: S	
Analysis Batch: 6128														
		МВ	МВ											
Analyte	Re	esult	Qualifier		RL		U	nit	D	Р	repared	Analy	zed	Dil Fac
Chloride	<	\$.00	U		5.00		r	ıg/Kg				08/05/21	13:24	1
Lab Sample ID: LCS 880-6112/2-A									CI	ient	Sample	ID: Lab C	ontrol S	ample
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 6128														
				Spike		LCS	LCS					%Rec.		
Analyte				Added			Qualifi	er Unit		D	%Rec	Limits		
Chloride				250		259.2		mg/Kg			104	90 _ 110		
Lab Sample ID: LCSD 880-6112/3-A								CI	ient \$	Sam	ple ID: I	_ab Contro	ol Sampl	le Dup
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 6128														
				Spike		LCSD	LCSD					%Rec.		RPD
Analyte				Added		Result	Qualifi	er Unit		D	%Rec	Limits	RPD	Limit
Chloride				250		258.3		mg/Kg			103	90 - 110	0	20
Lab Sample ID: 880-4801-A-4-B MS											Client	Sample ID	): Matrix	Spike
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 6128														
	Sample	Samp	ole	Spike		MS	MS					%Rec.		
Analyte	Result	Quali	fier	Added		Result	Qualifi	er Unit		D	%Rec	Limits		
Chloride	171			250		425.3		mg/Kg			102	90 - 110		
Lab Sample ID: 880-4801-A-4-C MS	D								Clien	it Sa	ample ID	: Matrix S	pike Dur	olicate
Matrix: Solid													Type: S	
Analysis Batch: 6128														
	Sample	Samp	ole	Spike		MSD	MSD					%Rec.		RPD
		-	-				<i></i>			-	a/ <b>D</b>			1
Analyte	Result	Quali	fier	Added		Result	Qualifi	er Unit		D	%Rec	Limits	RPD	Limit

Eurofins Xenco, Carlsbad

# **QC Association Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1044-1

SDG: WSP TE012921045

# GC VOA

#### Prep Batch: 6048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1044-1	SW04	Total/NA	Solid	5035	
MB 880-6048/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6048/1-A	Lab Control Sample	Total/NA	Solid	5035	
_CSD 880-6048/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
390-1039-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
890-1039-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
nalysis Batch: 6095					
· ·	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
Lab Sample ID	Client Sample ID SW04	Prep Type Total/NA	Matrix Solid	<u>Method</u> 8021B	
Lab Sample ID 890-1044-1	•				Prep Batch 6048 6048
Lab Sample ID 390-1044-1 MB 880-6048/5-A	SW04	Total/NA	Solid	8021B	6044 6044
Lab Sample ID 390-1044-1 MB 880-6048/5-A _CS 880-6048/1-A	SW04 Method Blank	Total/NA Total/NA	Solid Solid	8021B 8021B	6048
nalysis Batch: 6095           Lab Sample ID           890-1044-1           MB 880-6048/5-A           LCS 880-6048/1-A           LCSD 880-6048/2-A           890-1039-A-1-B MSD	SW04 Method Blank Lab Control Sample	Total/NA Total/NA Total/NA	Solid Solid Solid	8021B 8021B 8021B	6048 6048 6048

#### GC Semi VOA

#### Prep Batch: 6092

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1044-1	SW04	Total/NA	Solid	8015NM Prep	
MB 880-6092/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6092/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6092/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
820-1521-A-41-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
820-1521-A-41-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 6104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1044-1	SW04	Total/NA	Solid	8015B NM	6092
MB 880-6092/1-A	Method Blank	Total/NA	Solid	8015B NM	6092
LCS 880-6092/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6092
LCSD 880-6092/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6092
820-1521-A-41-F MS	Matrix Spike	Total/NA	Solid	8015B NM	6092
820-1521-A-41-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6092

#### HPLC/IC

#### Leach Batch: 6112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1044-1	SW04	Soluble	Solid	DI Leach	
MB 880-6112/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6112/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6112/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-4801-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-4801-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
Analysis Batch: 6128					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-1044-1	SW04	Soluble	Solid	300.0	6112
MB 880-6112/1-A	Method Blank	Soluble	Solid	300.0	6112
LCS 880-6112/2-A	Lab Control Sample	Soluble	Solid	300.0	6112

#### Eurofins Xenco, Carlsbad

4 5 6

# **QC** Association Summary

Client: WSP USA Inc.	
Project/Site: Elk Wallow II	

Job ID: 890-1044-1 SDG: WSP TE012921045

### HPLC/IC (Continued)

#### Analysis Batch: 6128 (Continued)

alysis Batch: 6128 (	Continued)				
ib Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
CSD 880-6112/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6112
0-4801-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	6112
0-4801-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6112

Eurofins Xenco, Carlsbad

## Lab Chronicle

Client: WSP USA Inc. Project/Site: Elk Wallow II

#### Client Sample ID: SW04 Date Collected: 08/03/21 14:45

Date Received: 08/04/21 10:50

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6048	08/05/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	6095	08/05/21 12:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			6092	08/05/21 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6104	08/05/21 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			6112	08/05/21 11:10	СН	XEN MID
Soluble	Analysis	300.0		1	6128	08/05/21 16:09	СН	XEN MID

#### Laboratory References:

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

Eurofins Xenco, Carlsbad

**Released to Imaging: 2/8/2022 3:41:54 PM** 

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#### Job ID: 890-1044-1 SDG: WSP TE012921045

#### Laboratory: Eurofins Xenco, Midland

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

Authority		Program	Identification Number	Expiration Date
xas		NELAP	T104704400-20-21	06-30-22
the agency does not o			ied by the governing authority. This list ma	
Analysis Method	Prep Method	Matrix	Analyte	
Analysis Method 8015B NM	Prep Method 8015NM Prep	Matrix Solid	Analyte Total TPH	

Eurofins Xenco, Carlsbad

## **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1044-1 SDG: WSP TE012921045

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

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

# Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1044-1 SDG: WSP TE012921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1044-1	SW04	Solid	08/03/21 14:45	08/04/21 10:50	0 - 10	4
						5
						8
						9
						12
						13

	Dan Moir WSP USA 3300 North A Street Midland, TX 79705		Houston,TX (281) : Midland,TX (432- NM (575-392-7550) Ph Bill to: (f Compan Address: City, Stal	CI ,TX (281) 240-4200 Da d.TX (432-704-5440) EI 7550) Phoenix,AZ (480 Bill to: (f different) Bill to: (f different) Company Name: Coty, State ZIP:	<b>hain of C</b> Illas, TX (214) 902-0301 L Paso, TX (915)585-3 0-355-0900) Atlanta, C 0-355-0900) Atlanta, C 1522 W. Mermod St. 522 W. Mermod St. Carlsbad, NM 8822	Bill to: (if different)         Kyle Littrell         Forgram           Company Name:         XTO Energy         S22 W. Mermod St.         State	)) 509-3334 )794-1296 Prog	n: UST/PS	Work Order No:	rownfields [_RC	of (
City, State ZIP: N	Midland, TX 79705 (432) 236-3849		City, Si Email: Jeremy	City, State ZIP: C	Carlsbad, NM 88220 m, Dan.Moir@wsp.com	88220 Wsp.com	Repo	Č	L		ē
Name:	Elk Wiallow	11	Turn Around	und		ANALYSI	IS REQUEST			Work	Work Order Notes
Project Number:	INSP TECN29,21045	9,21045	Routine							CI+1598041001	041001
P.O. Number:	(24/01	12021	Rush: 24	1 Nr						HTE: YA.	HTE: YA, 2020, C/2351, EXP.
Sampler's Name:	Jere	Jeremy Hill	Due Date: S	5/5/21						AP1: 30-0	AP1: 30-015-37588
SAMPLE RECEIPT	PT Temp Blank:	slank: Tes No	Wet Ice Yes	No No						INC: NAPI	INC: NAPPZILOGEIGE
Temperature (°C):	1	di G	Thermometer ID	ainer	)	.0) - 890-	-1044 Chain of Custody	In the line of the			
Cooler Custody Seals:	Yes	VA Corre	Correction Factor:	Con		PA 30			- [	TAT starts t	TAT starts the day recevied by the
Sample Custody Seals:	Yes No	N/A Total	Total Containers:	er of		de (El				lab, if n	lab, if received by 4:30pm
Sample Identification		Matrix Date Sampled	Time Depth Sampled	Numb	TPH (E BTEX (	Chloric				Samp	Sample Comments
5004		5 8-3-21	1445 0-10	10, 1	X	×				COM	Cimpus re
		1									
		/									
				$\overline{\mathbf{V}}$							
				Â	V	Y					
						/					/
								-+-			
Total 200.7 / 6010	10 200.8 / 6020:	8	8RCRA 13PPM T	Texas 11 Al Sb	Sb As Ba Be	B Cd Ca Cr Co		Mn Mo Ni K	Se Ag SiO2	Na Sr TI Sn U	Na Sr TI Sn U V Zn 1631/2451/7470/7471:Hn
Votice: Signature of this do		nent of samples constit	utes a valid purchase o	order from client c	ompany to Xenc	Notice: Signature of this document and reinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	tors. It assigns stand	ard terms and constances beyond the			
of Xenco. A minimum charg	ge of \$75.00 will be appl	lied to each project and	a charge of \$5 for each	h sample submitt	ad to Xenco, but	A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will b	be enforced unless previously negotiated.	previously negotiate			
Relinquished by: (Signature)	(Signature)	A Received b	Received by: (Signature)	L	Date/Tim	Relinquished	y: (Signature)	Receiv	Received by: (Signature)		S. H. ZMCH
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				-		0					Revised Date 051418 Rev. 2018 1



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Job Number: 890-1044-1

SDG Number: WSP TE012921045

List Source: Eurofins Xenco, Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1044 List Number: 1

<6mm (1/4").

Creator: Clifton, Cloe

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

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## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1044-1 SDG Number: WSP TE012921045

List Creation: 08/05/21 10:55 AM

List Source: Eurofins Xenco, Midland

Login Number: 1044 List Number: 2 Creator: Copeland, Tatiana

<6mm (1/4").

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

Received by OCD: 11/4/2021 2:30:53 PM

# 🛟 eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

# Laboratory Job ID: 890-1045-1

Laboratory Sample Delivery Group: WSP TE012921045 Client Project/Site: Elk Wallow II

# For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/10/2021 11:58:23 AM Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

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

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

Total Access Have a Question? Ask The Expert Visit us at: www.eurofinsus.com/Env

LINKS

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Released to Imaging: 2/8/2022 3:41:54 PM

Laboratory Job ID: 890-1045-1 SDG: WSP TE012921045

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Client: WSP USA Inc. Project/Site: Elk Wallow II

Qualifiers GC VOA Qualifier

GC Semi VOA Qualifier

S1-

U

U

U

HPLC/IC Qualifier

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Definitions/Glossary	1
SA Inc.         Job ID: 890-1045-1           k Wallow II         SDG: WSP TE012921045	2
	3
Qualifier Description	4
Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.	5
Qualifier Description	6
Indicates the analyte was analyzed for but not detected.	7
Qualifier Description           Indicates the analyte was analyzed for but not detected.	8

Glossary		C
Abbreviation	These commonly used abbreviations may or may not be present in this report.	3
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	1(
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	13
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	

4

5

Job ID: 890-1045-1 SDG: WSP TE012921045

#### Job ID: 890-1045-1

Project/Site: Elk Wallow II

Client: WSP USA Inc.

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1045-1

#### Receipt

The samples were received on 8/4/2021 11:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

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

RL

0.00202

0.00202

0.00202

0.00403

0.00202

0.00403

0.00403

Limits

70 - 130

70 - 130

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

08/05/21 11:00

08/05/21 11:00

08/05/21 11:00

08/05/21 11:00

08/05/21 11:00

08/05/21 11:00

08/05/21 11:00

Prepared

08/05/21 11:00

08/05/21 11:00

Job ID: 890-1045-1 SDG: WSP TE012921045

Analyzed

08/06/21 20:42

08/06/21 20:42

08/06/21 20:42

08/06/21 20:42

08/06/21 20:42

08/06/21 20:42

08/06/21 20:42

Analyzed

08/06/21 20:42

08/06/21 20:42

# **Client Sample ID: SW01**

Date Collected: 08/03/21 13:30 Date Received: 08/04/21 11:08

Sample Depth: 0 - 10

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

Project/Site: Elk Wallow II

Lab Sample ID: 890-1045-1 Matrix: Solid

5

Dil Fac

1

1

1

1

1

8
9

1 1 Dil Fac 1

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00202 U

<0.00202 U

<0.00202 U

<0.00403 U

<0.00202 U

<0.00403 U

<0.00403 U

%Recovery Qualifier

116 79

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 13:04	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 13:04	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 13:04	1	
Total TPH	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 13:04	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	08/06/21 09:48	08/06/21 13:04	1
o-Terphenyl	84		70 - 130	08/06/21 09:48	08/06/21 13:04	1

# Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	399	5.00	mg/Kg			08/09/21 20:26	1

#### **Client Sample ID: SW02** Date Collected: 08/03/21 13:50 Date Received: 08/04/21 11:08

Sample Depth: 0 - 10

#### Lab Sample ID: 890-1045-2 Matrix: Solid

Method: 8021B - Volatile Orga	lethod: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Benzene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
Toluene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
Total BTEX	<0.00399	U	0.00399	mg/Kg		08/05/21 11:00	08/06/21 21:08	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	108		70 - 130			08/05/21 11:00	08/06/21 21:08	1		
1,4-Difluorobenzene (Surr)	105		70 - 130			08/05/21 11:00	08/06/21 21:08	1		

Eurofins Xenco, Carlsbad

Job ID: 890-1045-1 SDG: WSP TE012921045

# Client Sample ID: SW02

Date Collected: 08/03/21 13:50 Date Received: 08/04/21 11:08

Sample Depth: 0 - 10

Project/Site: Elk Wallow II

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:48	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:48	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:48	1
Total TPH	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			08/06/21 09:48	08/06/21 14:48	1
o-Terphenyl	99		70 - 130			08/06/21 09:48	08/06/21 14:48	1
- Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Quaimer	NL.	Unit	U	Fiepaieu	Analyzeu	DirFac
Chloride	350		4.98	mg/Kg			08/09/21 20:43	1

#### **Client Sample ID: SW03**

Date Collected: 08/03/21 14:10 Date Received: 08/04/21 11:08 Sample Depth: 0 - 10

Method: 8021B - Volatile Orga	inic Compounds	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		08/05/21 11:00	08/06/21 21:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			08/05/21 11:00	08/06/21 21:34	1

70 - 130

94

1,4-Difluorobenzene	(Surr)
	(Ourr)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:09	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:09	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:09	1
Total TPH	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			08/06/21 09:48	08/06/21 15:09	1
o-Terphenyl	85		70 - 130			08/06/21 09:48	08/06/21 15:09	1
_ Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	398		4.96	mg/Kg			08/09/21 20:48	1

#### Eurofins Xenco, Carlsbad

Lab Sample ID: 890-1045-2 Matrix: Solid 5

# Lab Sample ID: 890-1045-3

08/06/21 21:34

08/05/21 11:00

Matrix: Solid

1

Job ID: 890-1045-1 SDG: WSP TE012921045

# Lab Sample ID: 890-1045-4

Matrix: Solid

5

Date Collected: 08/03/21 15:15 Date Received: 08/04/21 11:08

Client Sample ID: SW05

Client: WSP USA Inc.

Project/Site: Elk Wallow II

Sample Depth: 0 - 10

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/05/21 11:00	08/06/21 22:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/05/21 11:00	08/06/21 22:00	1
1,4-Difluorobenzene (Surr)	110		70 - 130			08/05/21 11:00	08/06/21 22:00	1
_ Method: 8015B NM - Diesel Ra	ange Organics (D	RO) (GC)						
Analyte	<b>•</b> • •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
<49.9	U	49.9	mg/Kg	08/06/21 09:48	08/06/21 15:30	1	
<49.9	U	49.9	mg/Kg	08/06/21 09:48	08/06/21 15:30	1	
<49.9	U	49.9	mg/Kg	08/06/21 09:48	08/06/21 15:30	1	
			5 5				
<49.9	U	49.9	mg/Kg	08/06/21 09:48	08/06/21 15:30	1	
	<49.9 <49.9	<49.9 U <49.9 U <49.9 U <49.9 U <49.9 U	<49.9 U 49.9 <49.9 U 49.9	<49.9 U 49.9 mg/Kg <49.9 U 49.9 mg/Kg	<49.9         U         49.9         mg/Kg         08/06/21 09:48           <49.9	<49.9 U	<49.9 U

Analyte	Result Qualifier	RI	Unit	р	Prenared	Analyzod	Dil Fac	
Method: 300.0 - Anions, Ion Chromato	ography - Soluble							
o-Terphenyl	94	70 - 130			08/06/21 09:48	08/06/21 15:30	1	
1-Chlorooctane	97	70 - 130			08/06/21 09:48	08/06/21 15:30	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	275		4.95	mg/Kg	д — —		08/09/21 20:54	1

#### Client Sample ID: SW06 Date Collected: 08/03/21 15:30 Date Received: 08/04/21 11:08

Sample Depth: 0 - 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00199	U	0.00199	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		08/05/21 11:00	08/06/21 22:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			08/05/21 11:00	08/06/21 22:26	1
1,4-Difluorobenzene (Surr)	104		70 - 130			08/05/21 11:00	08/06/21 22:26	1

Lab Sample ID: 890-1045-5

Matrix: Solid

Job ID: 890-1045-1 SDG: WSP TE012921045

# Client Sample ID: SW06

Date Collected: 08/03/21 15:30 Date Received: 08/04/21 11:08

Sample Depth: 0 - 10

Client: WSP USA Inc.

Project/Site: Elk Wallow II

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:51	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:51	1
Total TPH	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 15:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			08/06/21 09:48	08/06/21 15:51	1
p-Terphenyl	94		70 - 130			08/06/21 09:48	08/06/21 15:51	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 890-1045-5 Matrix: Solid

5

# **Surrogate Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II

Job ID: 890-1045-1 SDG: WSP TE012921045

Prep Type: Total/NA

Prep Type: Total/NA

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

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
890-1042-A-10-A MS	Matrix Spike	108	109	·	
890-1042-A-10-B MSD	Matrix Spike Duplicate	107	113		6
890-1045-1	SW01	116	79		
890-1045-2	SW02	108	105		
890-1045-3	SW03	96	94		
890-1045-4	SW05	112	110		8
890-1045-5	SW06	106	104		
LCS 880-6091/1-A	Lab Control Sample	100	106		0
LCSD 880-6091/2-A	Lab Control Sample Dup	104	112		3
MB 880-6091/5-A	Method Blank	68 S1-	87		
MB 880-6111/5-A	Method Blank	65 S1-	84		
Surrogate Legend					
BFB = 4-Bromofluorober	nzene (Surr)				

DFBZ = 1,4-Difluorobenzene (Surr)

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

#### Matrix: Solid

_			
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1045-1	SW01	87	84
890-1045-1 MS	SW01	85	73
890-1045-1 MSD	SW01	84	72
890-1045-2	SW02	99	99
890-1045-3	SW03	89	85
890-1045-4	SW05	97	94
890-1045-5	SW06	97	94
LCS 880-6170/2-A	Lab Control Sample	86	81
LCSD 880-6170/3-A	Lab Control Sample Dup	84	81
MB 880-6170/1-A	Method Blank	92	94

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

# **QC Sample Results**

Job ID: 890-1045-1 SDG: WSP TE012921045

Project/Site: Elk Wallow II

Client: WSP USA Inc.

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

Lab Sample ID: MB 880-609	1/5-A							Client Sa	ample ID: Meth	
Matrix: Solid									Prep Type:	Total/N
Analysis Batch: 6101									Prep Ba	tch: 60
	Ν	IB MB								
Analyte	Res	ult Qualifier	RL		Unit		D	Prepared	Analyzed	Dil F
Benzene	< 0.002	00 U	0.00200		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
Toluene	< 0.002	00 U	0.00200		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
Ethylbenzene	< 0.002	00 U	0.00200		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
m-Xylene & p-Xylene	<0.004	00 U	0.00400		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
o-Xylene	< 0.002	00 U	0.00200		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
Xylenes, Total	<0.004	00 U	0.00400		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
Total BTEX	<0.004	00 U	0.00400		mg/Kg	1	08	/05/21 11:00	08/06/21 14:12	
	л	IB MB								
Surrogate		ery Qualifier	Limits					Prepared	Analyzed	Dil F
4-Bromofluorobenzene (Surr)		68 <u>S1-</u>	70 - 130				08	1/05/21 11:00	08/06/21 14:12	
1,4-Difluorobenzene (Surr)		87	70 - 130					8/05/21 11:00	08/06/21 14:12	
Lab Sample ID: LCS 880-60	91/1-A						Clie	nt Sample	ID: Lab Contro	I Samp
Matrix: Solid									Prep Type:	Total/N
Analysis Batch: 6101									Prep Ba	tch: 60
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene			0.100	0.1026		mg/Kg		103	70 - 130	
Toluene			0.100	0.09345		mg/Kg		93	70 _ 130	
Ethylbenzene			0.100	0.1010		mg/Kg		101	70 - 130	
m-Xylene & p-Xylene			0.200	0.1952		mg/Kg		98	70 - 130	
o-Xylene			0.100	0.09696		mg/Kg		97	70 - 130	
		<u></u>								
0	LCS L		1 500 540							
	%Recovery		Limits							
4-Bromofluorobenzene (Surr)	% <i>Recovery</i>		70 - 130							
4-Bromofluorobenzene (Surr)	%Recovery									
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	%Recovery G 100 106		70 - 130			Cli	ent Sa	mple ID: L	ab Control Sar	nple Di
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6	%Recovery G 100 106		70 - 130			Cli	ent Sa	mple ID: L	ab Control Sar Pren Tyne:	
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid	%Recovery G 100 106		70 - 130			Cli	ent Sa	mple ID: L	Prep Type:	Total/N
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid	%Recovery G 100 106		70 - 130 70 - 130	LCSD	LCSD	Cli	ent Sa	mple ID: L	Prep Type: Prep Ba	Total/N tch: 60
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101	%Recovery G 100 106		70 - 130 70 - 130 <b>Spike</b>		LCSD Qualifier		ent Sa		Prep Type: Prep Ba %Rec.	Total/N tch: 609 RI
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte	%Recovery G 100 106		70 - 130 70 - 130 Spike Added	Result	LCSD Qualifier	Unit		%Rec	Prep Type: Prep Ba %Rec. Limits RF	Total/N tch: 609 RI 2D Lir
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene	%Recovery G 100 106		70 - 130 70 - 130 Spike Added 0.100	<b>Result</b> 0.1109		Unit mg/Kg		<b>%Rec</b>	Prep Type: Prep Ba %Rec. Limits RF 70 - 130	Total/N tch: 609 RI 2D Lir 8
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene	%Recovery G 100 106		70 - 130 70 - 130 <b>Spike</b> Added 0.100 0.100	<b>Result</b> 0.1109 0.09333		Unit mg/Kg mg/Kg		9 <b>%Rec</b> 111 93	Image: Prep Type:           Prep Ba           %Rec.           Limits         RF           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 RI 2D Lir 8 0
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene	%Recovery G 100 106		70 - 130 70 - 130 <b>Spike</b> Added 0.100 0.100 0.100	<b>Result</b> 0.1109 0.09333 0.1037		Unit mg/Kg mg/Kg mg/Kg		9 % <b>Rec</b> 111 93 104	Limits         Rf           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 RI 20 8 0 3
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	%Recovery G 100 106		70 - 130           70 - 130           Spike           Added           0.100           0.100           0.100           0.200	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		<b>%Rec</b> 111 93 104 101	Image: Prep Type:           Prep Ba           %Rec.           Limits         Rt           70 - 130         70 - 130           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 Rl 20 Lir 8 0 3 4
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	%Recovery G 100 106		70 - 130 70 - 130 <b>Spike</b> Added 0.100 0.100 0.100	<b>Result</b> 0.1109 0.09333 0.1037		Unit mg/Kg mg/Kg mg/Kg		9 % <b>Rec</b> 111 93 104	Image: Prep Type:           Prep Ba           %Rec.           Limits         RF           70 - 130           70 - 130           70 - 130	Total/N tch: 609 RI 20 8 0 3
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	<u>%Recovery</u> G 100 106 5091/2-A 	CSD	70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		<b>%Rec</b> 111 93 104 101	Image: Prep Type:           Prep Ba           %Rec.           Limits         Rt           70 - 130         70 - 130           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 Rl 20 Lir 8 0 3 4
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate	%Recovery G 100 106 5091/2-A    LCSD L %Recovery G	CSD	70 - 130 70 - 130 <b>Spike</b> Added 0.100 0.100 0.200 0.100 0.200 0.100	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		<b>%Rec</b> 111 93 104 101	Image: Prep Type:           Prep Ba           %Rec.           Limits         Rt           70 - 130         70 - 130           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 Rl 20 Lir 8 0 3 4
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	<u>%Recovery</u> 100 106 5091/2-A    Kecovery 104	CSD	70 - 130         70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100         0.100         0.200         0.100         Limits         70 - 130	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		<b>%Rec</b> 111 93 104 101	Image: Prep Type:           Prep Ba           %Rec.           Limits         Rt           70 - 130         70 - 130           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 Rl 20 Lir 8 0 3 4
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr)	%Recovery G 100 106 5091/2-A    LCSD L %Recovery G	CSD	70 - 130 70 - 130 <b>Spike</b> Added 0.100 0.100 0.200 0.100 0.200 0.100	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		<b>%Rec</b> 111 93 104 101	Image: Prep Type:           Prep Ba           %Rec.           Limits         Rt           70 - 130         70 - 130           70 - 130         70 - 130           70 - 130         70 - 130	Total/N tch: 609 Rl 20 Lir 8 0 3 4
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr)	<u>%Recovery</u> <u>100</u> <u>106</u> <b>5091/2-A</b> <u>LCSD</u> <u>Kecovery</u> <u>104</u> <u>112</u>	CSD	70 - 130         70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100         0.100         0.200         0.100         Limits         70 - 130	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		9 %Rec 111 93 104 101 100	Prep Type:           Prep Ba           %Rec.           Limits         Rf           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70	Total/N tch: 609 RI 20 Lir 8 0 3 4 3
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-1042-A-	<u>%Recovery</u> <u>100</u> <u>106</u> <b>5091/2-A</b> <u>LCSD</u> <u>Kecovery</u> <u>104</u> <u>112</u>	CSD	70 - 130         70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100         0.100         0.200         0.100         Limits         70 - 130	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		9 %Rec 111 93 104 101 100	Prep Type:           Prep Ba           %Rec.           Limits         Rf           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70	Total/N tch: 609 RI 20 Lir 8 0 3 4 3 7 4 3
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-1042-A- Matrix: Solid	<u>%Recovery</u> <u>100</u> <u>106</u> <b>5091/2-A</b> <u>LCSD</u> <u>Kecovery</u> <u>104</u> <u>112</u>	CSD	70 - 130         70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100         0.100         0.200         0.100         Limits         70 - 130	Result 0.1109 0.09333 0.1037 0.2028		Unit mg/Kg mg/Kg mg/Kg mg/Kg		9 %Rec 111 93 104 101 100	Prep Type:           Prep Ba           %Rec.           Limits         Rf           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70	rix Spill Total/N
Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-1042-A- Matrix: Solid Analysis Batch: 6101	<u>%Recovery</u> <u>4</u> <u>100</u> <u>106</u> <b>5091/2-A</b> <u>LCSD</u> <u>4</u> <u>%Recovery</u> <u>4</u> <u>104</u> <u>112</u> <b>-10-A MS</b>	Qualifier	70 - 130         70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100         0.200         0.100         0.200         0.100         0.200         0.100         0.200         0.100         0.200         0.100         70 - 130         70 - 130	Result 0.1109 0.09333 0.1037 0.2028 0.1004	Qualifier	Unit mg/Kg mg/Kg mg/Kg mg/Kg		9 %Rec 111 93 104 101 100	Prep Type:         Prep Ba           %Rec.         Imits         Rf           70 - 130         70 - 130         70 - 130           70 - 130         70 - 130         70 - 130           70 - 130         Prep Type:         Prep Type:           Prep Type:         Prep Ba	rix Spill Total/N
4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6101 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) Lab Sample ID: 890-1042-A- Matrix: Solid	<u>%Recovery</u> <u>100</u> <u>106</u> <b>5091/2-A</b> <u>LCSD</u> <u>Kecovery</u> <u>104</u> <u>112</u>	CSD Qualifier	70 - 130         70 - 130         70 - 130         Spike         Added         0.100         0.100         0.100         0.200         0.100         0.100         0.200         0.100         Limits         70 - 130	Result 0.1109 0.09333 0.1037 0.2028 0.1004		Unit mg/Kg mg/Kg mg/Kg mg/Kg		<b>%Rec</b> 111 93 104 101 100	Prep Type:           Prep Ba           %Rec.           Limits         Rf           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70           70 - 130         70	rix Spill Total/N

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Lab Sample ID: 890-1042-A-10-A MS

Lab Sample ID: 890-1042-A-10-B MSD

# **QC Sample Results**

MS MS

0.08873

0.07470

0.1516

0.07694

**Result Qualifier** 

Spike

Added

0.0996

0.0996

0.199

0.0996

Limits

70 - 130

70 - 130

Spike

Added

Analysis Batch: 6101

Matrix: Solid

Analyte

Toluene

o-Xylene

Surrogate

Matrix: Solid

Analyte

Ethylbenzene

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 6101

Project/Site: Elk Wallow II

Sample Sample

<0.00199

<0.00199 U

<0.00398 U

<0.00199 U

108

109

%Recovery

Result Qualifier

U

MS MS

Sample Sample Result Qualifier

Qualifier

			Job II	D: 890-1	045-1	
		S	SDG: WSP	TE01292	21045	
		Client		: Matrix ype: To p Batch	tal/NA	1
			%Rec.			
Unit	D	%Rec	Limits			
mg/Kg		88	70 - 130			
mg/Kg		74	70 - 130			
mg/Kg		76	70 - 130			
mg/Kg		77	70 - 130			
Cli	ent Sa	ample ID	): Matrix Sp	oike Dup	licate	
			Prep T	ype: To	tal/NA	
			Pre	p Batch	6091	
			%Rec.		RPD	
Unit	D	%Rec	Limits	RPD	Limit	
mg/Kg		104	70 - 130	10	35	
mg/Kg		96	70 - 130	8	35	

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#### MSD MSD Result Qualifier Uı 81 70 - 1307 35 81 70 - 130 6 35

Deserve			0.0000	0.1010	
Benzene	<0.00199	U	0.0996	0.1040	mg/Kg
Toluene	<0.00199	U	0.0996	0.09651	mg/Kg
Ethylbenzene	<0.00199	U	0.0996	0.08009	mg/Kg
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1619	mg/Kg
o-Xylene	<0.00199	U	0.0996	0.08151	mg/Kg
	MSD	MSD			

MB MB

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 _ 130
1,4-Difluorobenzene (Surr)	113		70 - 130

#### Lab Sample ID: MB 880-6111/5-A Matrix: Solid Analysis Batch: 6101

#### **Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 6111

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/05/21 11:09	08/05/21 13:37	1
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130			08/05/21 11:09	08/05/21 13:37	1
1,4-Difluorobenzene (Surr)	84		70 - 130			08/05/21 11:09	08/05/21 13:37	1

# **QC Sample Results**

Project/Site: Elk Wallow II

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

Lab Sample ID: MB 880-6170/1	I-A								Client Sa	mple ID:		
Matrix: Solid												otal/NA
Analysis Batch: 6161										Pre	p Batcl	h: <b>6170</b>
		MB										
Analyte		Qualifier	RL		Unit		<u>D</u>		repared	Analyz		Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/	Kg		08/0	6/21 09:48	08/06/21	12:02	1
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U	50.0		mg/	Kg		08/0	6/21 09:48	08/06/21	12:02	1
C10-C28)	-50.0		50.0			K -		00/0	0/04 00:40	00/00/04	10.00	4
Oll Range Organics (Over C28-C36)	<50.0		50.0		mg/				6/21 09:48	08/06/21		1
Total TPH	<50.0	U	50.0		mg/	ĸg		08/0	6/21 09:48	08/06/21	12:02	1
	MB	MB										
Surrogate	%Recovery	Qualifier	Limits					P	repared	Analyz	ed	Dil Fac
1-Chlorooctane	92		70 - 130					08/0	6/21 09:48	08/06/21	12:02	1
o-Terphenyl	94	!	70 - 130					08/0	6/21 09:48	08/06/21	12:02	1
Lab Sample ID: LCS 880-6170/	/2-A						С	lient	Sample	ID: Lab Co	ontrol S	Sample
Matrix: Solid										Prep 1	ype: To	otal/NA
Analysis Batch: 6161										Pre	p Batcl	n: <b>6170</b>
			Spike	LCS	LCS					%Rec.		
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics			1000	833.5		mg/Kg			83	70 - 130		
(GRO)-C6-C10			1000	705 7						70 400		
Diesel Range Organics (Over			1000	765.7		mg/Kg			77	70 - 130		
C10-C28)												
	LCS LCS	S										
Surrogate	%Recovery Qua	alifier	Limits									
1-Chlorooctane	86		70 - 130									
o-Terphenyl	81		70 - 130									
Г								_				
Lab Sample ID: LCSD 880-617	0/3-A					Cli	ent	Sam	iple ID: L	ab Contro	-	
Matrix: Solid												otal/NA
Analysis Batch: 6161											p Batch	n: 6170
			Spike		LCSD			_		%Rec.		RPD
Analyte			Added		Qualifier	_ Unit		_ <u>D</u>	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	812.3		mg/Kg			81	70 - 130	3	20
(GRO)-C6-C10 Diesel Range Organics (Over			1000	755.4		mg/Kg			76	70 - 130	1	20
C10-C28)			.000	, 00.4					10	10-100	1	20
,												
	LCSD LCS											
Surrogate		alifier	Limits									
1-Chlorooctane	84		70 - 130 70 - 120									
o-Terphenyl	81		70 - 130									
Lab Sample ID: 890-1045-1 MS										Client San	nle ID	SW01
Matrix: Solid	,										-	otal/NA
												h: 6170
Analysis Batch: 6161	Sample Sar	nnle	Spike	ме	MS					%Rec.		
Analyte	Result Qua	-	Added		Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics	<50.0 U		995	907.0		mg/Kg			89	70 - 130		
(GRO)-C6-C10												
Diesel Range Organics (Over	<50.0 U		995	823.1		mg/Kg			83	70 - 130		

Job ID: 890-1045-1

SDG: WSP TE012921045

C10-C28)

#### Job ID: 890-1045-1 SDG: WSP TE012921045

Client: WSP USA Inc. Project/Site: Elk Wallow II

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

Lab Sample ID: 890-1045-	1 MS			
Matrix: Solid				
Analysis Batch: 6161				
	MS	MS		
Surrogate	%Recovery	Qualifier	Limits	
1-Chlorooctane	85		70 - 130	
o-Terphenyl	73		70 - 130	

#### Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography

Matrix: Solid Analysis Batch: 6161										Type: To p Batch	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	931.6		mg/Kg		91	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	812.0		mg/Kg		81	70 - 130	1	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	84		70 - 130								
o-Terphenyl	72		70 - 130								

the second se									Client S	Sample ID:	Method	Blank
Matrix: Solid										Prep	Type: S	oluble
Analysis Batch: 6264												
	N	IB MB										
Analyte	Resu	ult Qualifier		RL		Unit		DI	Prepared	Analyz	ed	Dil Fac
Chloride	<5.0	00 U		5.00		mg/Kg				08/09/21	20:10	1
Lab Sample ID: LCS 880-6117/2-A								Clien	t Sample	e ID: Lab Co	ontrol S	ample
Matrix: Solid											Type: S	
Analysis Batch: 6264												
			Spike	L	S L	LCS				%Rec.		
Analyte			Added	Res	ult C	Qualifier	Unit	D	%Rec	Limits		
			250	265	6		mg/Kg		106	90 - 110		
Chloride			200	200								
-			200	200								<b>D</b>
Lab Sample ID: LCSD 880-6117/3-A			200	200				ent Sar	nple ID:	Lab Contro		
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid			200	200				ent Sar	nple ID:		l Sampl Type: S	
Lab Sample ID: LCSD 880-6117/3-A								ent Sar	nple ID:	Prep		oluble
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264			Spike	LC	SD L	LCSD	Cli			Prep %Rec.	Type: S	oluble RPD
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid			Spike Added	LC: Res	SD L	LCSD Qualifier		ent Sar	nple ID: %Rec	Prep %Rec. Limits		oluble RPD Limit
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264			Spike	LC	SD L		Cli			Prep %Rec.	Type: S	oluble RPD
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264 Analyte			Spike Added	LC: Res	SD L		Cli		%Rec	Prep %Rec. Limits	Type: S	oluble RPD Limit 20
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264 Analyte Chloride			Spike Added	LC: Res	SD L		Cli		%Rec	Prep %Rec. Limits 90 - 110 Client San	Type: S	RPD Limit 20 SW01
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264 Analyte Chloride Lab Sample ID: 890-1045-1 MS			Spike Added	LC: Res	SD L		Cli		%Rec	Prep %Rec. Limits 90 - 110 Client San	Type: S RPD 1 nple ID:	RPD Limit 20 SW01
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264 Analyte Chloride Lab Sample ID: 890-1045-1 MS Matrix: Solid Analysis Batch: 6264	Sample Si	ample	Spike Added	LC: 	SD L ult <u>C</u> 7		Cli		%Rec	Prep %Rec. Limits 90 - 110 Client San	Type: S RPD 1 nple ID:	RPD Limit 20 SW01
Lab Sample ID: LCSD 880-6117/3-A Matrix: Solid Analysis Batch: 6264 Analyte Chloride Lab Sample ID: 890-1045-1 MS Matrix: Solid Analysis Batch: 6264	Sample S	•	Spike Added 250	LC: 26;	6D L uit <u>C</u> 7	Qualifier	Cli		%Rec	Prep %Rec. Limits 90 - 110 Client San Prep	Type: S RPD 1 nple ID:	RPD Limit 20 SW01

# **QC Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow II

Job ID: 890-1045-1 SDG: WSP TE012921045

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

ab Sample ID: 890-1045-1   latrix: Solid	MSD								Client Sam Prep	nple ID: 3 Type: So		
analysis Batch: 6264	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
nalyte		Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
loride	399		250	648.0		mg/Kg		100	90 - 110	0	20	

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# **QC Association Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1045-1 SDG: WSP TE012921045

## **GC VOA**

#### Prep Batch: 6091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1045-1	SW01	Total/NA	Solid	5035	
890-1045-2	SW02	Total/NA	Solid	5035	
890-1045-3	SW03	Total/NA	Solid	5035	
890-1045-4	SW05	Total/NA	Solid	5035	
890-1045-5	SW06	Total/NA	Solid	5035	
MB 880-6091/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6091/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6091/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1042-A-10-A MS	Matrix Spike	Total/NA	Solid	5035	
890-1042-A-10-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 6101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1045-1	SW01	Total/NA	Solid	8021B	6091
890-1045-2	SW02	Total/NA	Solid	8021B	6091
890-1045-3	SW03	Total/NA	Solid	8021B	6091
890-1045-4	SW05	Total/NA	Solid	8021B	6091
890-1045-5	SW06	Total/NA	Solid	8021B	6091
MB 880-6091/5-A	Method Blank	Total/NA	Solid	8021B	6091
MB 880-6111/5-A	Method Blank	Total/NA	Solid	8021B	6111
LCS 880-6091/1-A	Lab Control Sample	Total/NA	Solid	8021B	6091
LCSD 880-6091/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6091
890-1042-A-10-A MS	Matrix Spike	Total/NA	Solid	8021B	6091
890-1042-A-10-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6091
Prep Batch: 6111					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
MB 880-6111/5-A	Method Blank	Total/NA	Solid	5035	

#### GC Semi VOA

#### Analysis Batch: 6161

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1045-1	SW01	Total/NA	Solid	8015B NM	6170
890-1045-2	SW02	Total/NA	Solid	8015B NM	6170
890-1045-3	SW03	Total/NA	Solid	8015B NM	6170
890-1045-4	SW05	Total/NA	Solid	8015B NM	6170
890-1045-5	SW06	Total/NA	Solid	8015B NM	6170
MB 880-6170/1-A	Method Blank	Total/NA	Solid	8015B NM	6170
LCS 880-6170/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6170
LCSD 880-6170/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6170
890-1045-1 MS	SW01	Total/NA	Solid	8015B NM	6170
890-1045-1 MSD	SW01	Total/NA	Solid	8015B NM	6170

#### Prep Batch: 6170

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1045-1	SW01	Total/NA	Solid	8015NM Prep	
890-1045-2	SW02	Total/NA	Solid	8015NM Prep	
890-1045-3	SW03	Total/NA	Solid	8015NM Prep	
890-1045-4	SW05	Total/NA	Solid	8015NM Prep	
890-1045-5	SW06	Total/NA	Solid	8015NM Prep	

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Eurofins Xenco, Carlsbad

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# **QC Association Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II

# GC Semi VOA (Continued)

#### Prep Batch: 6170 (Continued)

Lab Sample ID MB 880-6170/1-A	Client Sample ID	Prep Type Total/NA	Matrix	Method 8015NM Prep	Prep Batch
LCS 880-6170/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6170/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1045-1 MS	SW01	Total/NA	Solid	8015NM Prep	
890-1045-1 MSD	SW01	Total/NA	Solid	8015NM Prep	

#### HPLC/IC

#### Leach Batch: 6117

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1045-1	SW01	Soluble	Solid	DI Leach	
890-1045-2	SW02	Soluble	Solid	DI Leach	
890-1045-3	SW03	Soluble	Solid	DI Leach	
890-1045-4	SW05	Soluble	Solid	DI Leach	
890-1045-5	SW06	Soluble	Solid	DI Leach	
MB 880-6117/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6117/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6117/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1045-1 MS	SW01	Soluble	Solid	DI Leach	
890-1045-1 MSD	SW01	Soluble	Solid	DI Leach	

#### Analysis Batch: 6264

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1045-1	SW01	Soluble	Solid	300.0	6117
890-1045-2	SW02	Soluble	Solid	300.0	6117
890-1045-3	SW03	Soluble	Solid	300.0	6117
890-1045-4	SW05	Soluble	Solid	300.0	6117
890-1045-5	SW06	Soluble	Solid	300.0	6117
MB 880-6117/1-A	Method Blank	Soluble	Solid	300.0	6117
LCS 880-6117/2-A	Lab Control Sample	Soluble	Solid	300.0	6117
LCSD 880-6117/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6117
890-1045-1 MS	SW01	Soluble	Solid	300.0	6117
890-1045-1 MSD	SW01	Soluble	Solid	300.0	6117

#### Job ID: 890-1045-1 SDG: WSP TE012921045

# Lab Chronicle

Client: WSP USA Inc. Project/Site: Elk Wallow II

# **Client Sample ID: SW01**

Date Collected: 08/03/21 13:30 Date Received: 08/04/21 11:08

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6091	08/05/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	6101	08/06/21 20:42	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 13:04	AJ	XEN MID
Soluble	Leach	DI Leach			6117	08/05/21 11:34	СН	XEN MID
Soluble	Analysis	300.0		1	6264	08/09/21 20:26	СН	XEN MID

#### Client Sample ID: SW02 Date Collected: 08/03/21 13:50 Date Received: 08/04/21 11:08

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6091	08/05/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	6101	08/06/21 21:08	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 14:48	AJ	XEN MID
Soluble	Leach	DI Leach			6117	08/05/21 11:34	СН	XEN MID
Soluble	Analysis	300.0		1	6264	08/09/21 20:43	CH	XEN MID

# **Client Sample ID: SW03**

#### Date Collected: 08/03/21 14:10 Date Received: 08/04/21 11:08

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6091	08/05/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	6101	08/06/21 21:34	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 15:09	AJ	XEN MID
Soluble	Leach	DI Leach			6117	08/05/21 11:34	СН	XEN MID
Soluble	Analysis	300.0		1	6264	08/09/21 20:48	СН	XEN MID

#### **Client Sample ID: SW05** Date Collected: 08/03/21 15:15 Date Received: 08/04/21 11:08

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6091	08/05/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	6101	08/06/21 22:00	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 15:30	AJ	XEN MID
Soluble	Leach	DI Leach			6117	08/05/21 11:34	СН	XEN MID
Soluble	Analysis	300.0		1	6264	08/09/21 20:54	СН	XEN MID

#### Lab Sample ID: 890-1045-3 Matrix: Solid

# Lab Sample ID: 890-1045-4

Matrix: Solid

Eurofins Xenco, Carlsbad

Matrix: Solid

Matrix: Solid

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Job ID: 890-1045-1

SDG: WSP TE012921045

Lab Sample ID: 890-1045-1

Lab Sample ID: 890-1045-2

# Lab Chronicle

Client: WSP USA Inc. Project/Site: Elk Wallow II

#### **Client Sample ID: SW06** Date Collected: 08/03/21 15:30

Date Received: 08/04/21 11:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6091	08/05/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	6101	08/06/21 22:26	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 15:51	AJ	XEN MID
Soluble	Leach	DI Leach			6117	08/05/21 11:34	СН	XEN MID
Soluble	Analysis	300.0		1	6264	08/09/21 20:59	СН	XEN MID

#### Laboratory References:

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

Eurofins Xenco, Carlsbad

Job ID: 890-1045-1 SDG: WSP TE012921045 Lab Sample ID: 890-1045-5 Matrix: Solid 5 6 7 8 9

ent: WSP USA Inc.		Accreuitation/C	ertification Summary	Job ID: 890-1045	
oject/Site: Elk Wallov	v II			SDG: WSP TE01292104	
	ins Xenco, Midlar				
less otherwise noted, all a	nalytes for this laboratory	were covered under each acc	reditation/certification below.		_
uthority	I	Program	Identification Number	Expiration Date	
exas		NELAP	T104704400-20-21	06-30-22	
The following analytes	are included in this report	but the laboratory is not cortif	fied by the governing authority. This list ma	windude analytes for which	
the agency does not off		but the laboratory is not certin	led by the governing autionty. This is the		
Analysis Method	Prep Method	Matrix	Analyte		
8015B NM	8015NM Prep	Solid	Total TPH		
8021B	5035	Solid	Total BTEX		

Eurofins Xenco, Carlsbad

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# **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow II

SDG: WSP TE012921045

lethod	Method Description	Protocol	Laboratory
021B	Volatile Organic Compounds (GC)	SW846	XEN MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
00.0	Anions, Ion Chromatography	MCAWW	XEN MID
035	Closed System Purge and Trap	SW846	XEN MID
015NM Prep	Microextraction	SW846	XEN MID
I Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

Job ID: 890-1045-1

5
8
9
11
13

Eurofins Xenco, Carlsbad

# Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow II Job ID: 890-1045-1 SDG: WSP TE012921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
390-1045-1	SW01	Solid	08/03/21 13:30	08/04/21 11:08	0 - 10	
390-1045-2	SW02	Solid	08/03/21 13:50	08/04/21 11:08	0 - 10	
390-1045-3	SW03	Solid	08/03/21 14:10	08/04/21 11:08	0 - 10	5
390-1045-4	SW05	Solid	08/03/21 15:15	08/04/21 11:08	0 - 10	J
390-1045-5	SW06	Solid	08/03/21 15:30	08/04/21 11:08	0 - 10	
						8
						9
					_	12
						13

Revised Date 051418 Rev. 2018		đ					Г
						1	7 6
P. 7.2. 104	Che Why	2 anne byen	8/4/20 1020	-bye	am	D for	<u>, , , , , , , , , , , , , , , , , , , </u>
Dat	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	ture) Rec	Relinquished by: (Signature)	
	stances beyond the control reviously negotlated.	of service. 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 Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	iny losses or expenses incurrec submitted to Xenco, but not as	shall not assume any responsibility for a oject and a charge of \$5 for each sample	for the cost of samples and . .00 will be applied to each pr	f service. Xenco will be liable only Xenco. A minimum charge of \$75	
	ard terms and conditions	Notica: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	m client company to Xenco, Its	s constitutes a valid purchase order fro	and refinquishment of sample	otice: Signature of this document -	50
Na Sr Then U V Zn 1631/245.1/7470 / 7471 . Hg	Mn Mo Ni K Se Ag 9:02 Na Si Ti Se Ag Ti U 1631/245.1/7	B Cd Ca Cr Co Cu Fe Pb Mg Cd Cr Co Cu Pb Mn Mo Ni Se	N Sb As Ba Be Sb As Ba Be	8RCRA 13PPM Texas 11 A <b>TCLP / SPLP 6010</b> : 8RCRA	200.8 / 6020: Metal(s) to be analyzec	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	
		$\mathbf{k}$					3
			V				
						(	
4			V V V V	1 1530 V	X V	Sm06	
				1515		50WS	
				1410		SWOZ	
				1350		SW02	
COMPOSITE			X	_	5 8-3-21	Smal	
Sample Comments			Numbe TPH (El BTEX (l Chlorid	Date Time Depth	Matrix	Sample Identification	
lab, if received by 4:30pm			PA 80	Total Containers:	Yes No NIA	Sample Custody Seals:	
TAT starts the day recevied by the	_		015) 0=80	Correction Factor:	Yes No NIA	Seals:	
	Ypo	890-1045 Chain of Custody	)21)	TWM-007	NO NO	Received Intact:	
				Thermometer ID	0.015	Temperature (°C):	
INC: NAPP2110461999				No Wet Ice: Yes No	Temp Blank:	SAMPLE RECEIPT	
HP1: 30-015-37538				Due Date:	Jeremy Hill	Sampler's Name:	
AFE! PA.2020.02331, EXP.				Rush:	4/01/2021	P.O. Number: O	
CC#1598041001				Ro	-1	er: V	
Work Order Notes		ANALYSIS REQUEST		Turn Around	Wallow 11	Project Name: FX	
T Other:	Deliverables: EDD ADaPT		wsp.com, Dan.Moir@wsp.com	Email: Jeremy. Hill@wsp.com.	(432) 236-3849	Phone: (432) 2	
	Reporting:Level II evel III ST/UST		P: Carlsbad, NM 88220	City, State ZIP:	Midland, TX 79705	City, State ZIP: Midlan	
	State of Project:			Address:	3300 North A Street	Address: 3300 N	
fields [RC Derfund	Program: UST/PST CRP Crownfields	Prog		Company Name:	JSA	Company Name: WSP USA	
omments	Work Order Comments		ant) Kyle Littrell	Bill to: (if different)	<u>o</u> r	Project Manager: Dan Moir	
Page of	00) www.xenco.com	Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta.GA (770-449-8800) Tampa,FL (813-620-2000)	x,AZ (480-355-0900) Atlanta,	Hobbs,NM (575-392-7550) Phoeni			
4		Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio.TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296	4200 Dallas,TX (214) 902-03 5440) EL Paso,TX (915)585-	Houston,TX (281) 240- Midland,TX (432-704-			800
:	Work Order No:	ustody	Chain of Custody				J

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Job Number: 890-1045-1 SDG Number: WSP TE012921045

List Source: Eurofins Xenco, Carlsbad

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1045 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 True The cooler or samples do not appear to have been compromised or tampered with. 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 True Samples are received within Holding Time (excluding tests with immediate HTs) True Sample containers have legible labels. 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 True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs N/A

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Appropriate sample containers are used. Sample bottles are completely filled.

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

# Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1045

Job Number: 890-1045-1 SDG Number: WSP TE012921045

List Source: Eurofins Xenco, Midland

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List Number: 2			List Creation: 08/05/21 10:55 AM
Creator: Copeland, Tatiana			
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		

True

True

True True

True

Received by OCD: 11/4/2021 2:30:53 PM

# 🔅 eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

# Laboratory Job ID: 890-1060-1

Laboratory Sample Delivery Group: WSP TE012921045 Client Project/Site: Elk Wallow 11 State #1

# For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/6/2021 6:57:45 PM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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



LINKS

Review your project results through

Released to Imaging: 2/8/2022 3:41:54 PM

Laboratory Job ID: 890-1060-1 SDG: WSP TE012921045

# **Table of Contents**

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Demitions/Glossary	
Client: WSP USA Inc.	Job ID: 890-1060-1
Project/Site: Elk Wallow 11 State #1	SDG: WSP TE012921045

Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		5
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
Glossary		ð
Abbreviation	These commonly used abbreviations may or may not be present in this report.	9
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	19
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	13
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)	

Most Probable Number

Not Calculated

Negative / Absent

Positive / Present Practical Quantitation Limit

Presumptive Quality Control

Method Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

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

MPN

MQL

NC

ND NEG

POS

PQL PRES

QC RER

RL RPD

TEF

TEQ

TNTC

Project/Site: Elk Wallow 11 State #1

4

5

#### Job ID: 890-1060-1 SDG: WSP TE012921045

#### Job ID: 890-1060-1

Client: WSP USA Inc.

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1060-1

#### Receipt

The samples were received on 8/5/2021 12:06 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

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

RL

0.00200

0.00200

0.00200

0.00400

0.00200

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

08/06/21 08:30

08/06/21 08:30

08/06/21 08:30

08/06/21 08:30

08/06/21 08:30

Job ID: 890-SDG: WSP TE0129

# **Client Sample ID: FS02**

Project/Site: Elk Wallow 11 State #1

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00400 U

<0.00200 U

Date Collected: 08/04/21 11:25 Date Received: 08/05/21 12:06

Sample Depth: - 12

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

Client: WSP USA Inc.

# Lab Sample ID: 890-1

Analyzed

08/06/21 12:12

08/06/21 12:12

08/06/21 12:12

08/06/21 12:12

08/06/21 12:12

Matrix

1060-1 921045	2
060-1 : Solid	3
	4
	5
Dil Fac 1	6
1	7
1	8
1	9
Dil Fac 1	10
1	11
Dil Fac	12
1	13
1	14

Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 12:12	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 12:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			08/06/21 08:30	08/06/21 12:12	1
1,4-Difluorobenzene (Surr)	96		70 - 130			08/06/21 08:30	08/06/21 12:12	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 14:06	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 14:06	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 14:06	1
Total TPH	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 14:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			08/06/21 09:48	08/06/21 14:06	1
p-Terphenyl	86		70 - 130			08/06/21 09:48	08/06/21 14:06	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		4.97	mg/Kg			08/06/21 14:57	1
lient Sample ID: FS04						Lab Sar	nple ID: 890-	1060-2
ate Collected: 08/04/21 11:58							Matri	x: Solid
ate Received: 08/05/21 12:06								
ample Depth: - 10								

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00199	U	0.00199	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		08/06/21 08:30	08/06/21 12:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			08/06/21 08:30	08/06/21 12:33	1
1,4-Difluorobenzene (Surr)	95		70 - 130			08/06/21 08:30	08/06/21 12:33	1

Released to Imaging: 2/8/2022 3:41:54 PM

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

## Client Sample ID: FS04

Date Collected: 08/04/21 11:58 Date Received: 08/05/21 12:06

Sample Depth: - 10

Method: 8015B NM - Diesel Rang	• • •				_			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:27	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:27	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:27	1
Total TPH	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 14:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			08/06/21 09:48	08/06/21 14:27	1
o-Terphenyl	91		70 - 130			08/06/21 09:48	08/06/21 14:27	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	428		4.96	mg/Kg			08/06/21 15:13	1

 Job ID: 890-1060-1
 2

 SDG: WSP TE012921045
 2

 Lab Sample ID: 890-1060-2
 3

 Matrix: Solid
 3

Project/Site: Elk Wallow 11 State #1

#### Job ID: 890-1060-1 SDG: WSP TE012921045

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

#### Matrix: Solid

Client: WSP USA Inc.

				Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)		ł
880-4798-A-6-A MS	Matrix Spike	105	103	·	
880-4798-A-6-B MSD	Matrix Spike Duplicate	113	103		6
890-1060-1	FS02	112	96		
890-1060-2	FS04	105	95		
LCS 880-6113/1-A	Lab Control Sample	103	104		
LCSD 880-6113/2-A	Lab Control Sample Dup	109	102		\$
MB 880-6113/5-A	Method Blank	100	95		
Surrogate Legend					9

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

#### Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
ab Sample ID 90-1045-A-1-F MS	Client Sample ID Matrix Spike	(70-130) 	(70-130) 73	
90-1045-A-1-G MSD	Matrix Spike Duplicate	84	73	
90-1060-1	FS02	85	86	
0-1060-2	FS04	89	91	
880-6170/2-A	Lab Control Sample	86	81	
SD 880-6170/3-A	Lab Control Sample Dup	84	81	
B 880-6170/1-A	Method Blank	92	94	

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Eurofins Xenco, Carlsbad

# **QC Sample Results**

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

# Lab Sample ID: MB 880-6113/5-A

Matrix: Solid Analysis Batch: 6155

Analyte Benzene Toluene Ethylhenzene							TTOP But	
	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			08/06/21 08:30	08/06/21 11:30	1
1,4-Difluorobenzene (Surr)	95		70 - 130			08/06/21 08:30	08/06/21 11:30	1

#### Lab Sample ID: LCS 880-6113/1-A Matrix: Solid

#### Analysis Batch: 6155

Spike	LCS	LCS				%Rec.	
Added	Result	Qualifier	Unit	D	%Rec	Limits	
0.100	0.09719		mg/Kg		97	70 - 130	
0.100	0.09121		mg/Kg		91	70 - 130	
0.100	0.08775		mg/Kg		88	70 - 130	
0.200	0.1759		mg/Kg		88	70 _ 130	
0.100	0.08785		mg/Kg		88	70 - 130	
	Added 0.100 0.100 0.100 0.200	Added         Result           0.100         0.09719           0.100         0.09121           0.100         0.08775           0.200         0.1759	Added         Result         Qualifier           0.100         0.09719	Added         Result         Qualifier         Unit           0.100         0.09719         mg/Kg           0.100         0.09121         mg/Kg           0.100         0.08775         mg/Kg           0.200         0.1759         mg/Kg	Added         Result         Qualifier         Unit         D           0.100         0.09719         mg/Kg         mg/Kg           0.100         0.09121         mg/Kg           0.100         0.08775         mg/Kg           0.200         0.1759         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           0.100         0.09719         mg/Kg         97           0.100         0.09121         mg/Kg         91           0.100         0.08775         mg/Kg         88           0.200         0.1759         mg/Kg         88	Added         Result         Qualifier         Unit         D         %Rec         Limits           0.100         0.09719         mg/Kg         97         70 - 130           0.100         0.09121         mg/Kg         91         70 - 130           0.100         0.08775         mg/Kg         88         70 - 130           0.200         0.1759         mg/Kg         88         70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

#### Lab Sample ID: LCSD 880-6113/2-A Matrix: Solid

Matrix: Solid							Prep T	ype: To	al/NA
Analysis Batch: 6155							Pre	p Batch	6113
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09179		mg/Kg		92	70 - 130	6	35
Toluene	0.100	0.08879		mg/Kg		89	70 - 130	3	35
Ethylbenzene	0.100	0.08570		mg/Kg		86	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1737		mg/Kg		87	70 - 130	1	35
o-Xylene	0.100	0.08695		mg/Kg		87	70 - 130	1	35
	יפח								

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-4798-A-6-A Matrix: Solid Analysis Batch: 6155	MS							Client	Prep	: Matrix Spike Type: Total/NA p Batch: 6113
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.101	0.08200		mg/Kg		81	70 - 130	

# Job ID: 890-1060-1 SDG: WSP TE012921045

**Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 6113 5 6 7

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

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA
Prep Batch: 6113

Prep Type: Total/NA
Prep Batch: 6113

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

Lab Sample ID: 880-4798-A-6-A I Matrix: Solid	MS								Client	Sample ID: M Prep Typ		
Analysis Batch: 6155										Prep		
-	Sample	Sam	ple	Spike	MS	MS				%Rec.		
Analyte	Result	Qual	lifier	Added	Result	Qualifier	Unit		D %Rec	Limits		
Foluene	<0.00200	U		0.101	0.07626		mg/Kg		75	70 - 130		
thylbenzene	<0.00200	U		0.101	0.07275		mg/Kg		72	70 <sub>-</sub> 130		
n-Xylene & p-Xylene	<0.00399	U		0.202	0.1466		mg/Kg		73	70 <sub>-</sub> 130		
-Xylene	<0.00200			0.101	0.07333		mg/Kg		73	70 - 130		
	MS	мs										
Surrogate	%Recovery	Qua	lifier	Limits								
I-Bromofluorobenzene (Surr)	105			70 - 130								
,4-Difluorobenzene (Surr)	103			70 - 130								
ah Camala ID: 990 4709 A C D I										Metrix Cuil	- D	
.ab Sample ID: 880-4798-A-6-B I /atrix: Solid								men	L Sample ID.	: Matrix Spik		
										Prep Typ		
Analysis Batch: 6155	Comul-	6.m	nlo	Spike	Men	Med				Prep % Rec	DatCh	
noluto	Sample Result			Spike	MSD	MSD Qualifiar	Unit			%Rec.	000	RF
nalyte			iner	Added		Qualifier	Unit		<u>D</u> %Rec	Limits	RPD	Lir
enzene	<0.00200			0.0994	0.07877		mg/Kg		79 77	70 <sub>-</sub> 130	4	
bluene	< 0.00200			0.0994	0.07611		mg/Kg		77	70 - 130	0	
thylbenzene	< 0.00200			0.0994	0.07282		mg/Kg		73	70 - 130	0	
-Xylene & p-Xylene	<0.00399			0.199	0.1487		mg/Kg		75	70 - 130	1	
Xylene	<0.00200	U		0.0994	0.07554		mg/Kg		76	70 - 130	3	
	MSD	MSD	)									
		-										
	%Recovery	Qua	lifier	Limits								
-Bromofluorobenzene (Surr)	113	Quai	lifier	70 - 130								
Bromofluorobenzene (Surr)		Qual	lifier									
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr)	113 103			70 <sub>-</sub> 130 70 - 130								
Surrogate -Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F _ab Sample ID: MB 880-6170/1-A	113 103 Range Or			70 <sub>-</sub> 130 70 - 130					Client Sa	ample ID: Me	ethod	Blar
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F _ab Sample ID: MB 880-6170/1-A	113 103 Range Or			70 <sub>-</sub> 130 70 - 130					Client Sa	ample ID: Me Prep Tvi		
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F _ab Sample ID: MB 880-6170/1-A Matrix: Solid	113 103 Range Or			70 <sub>-</sub> 130 70 - 130					Client Sa	Prep Ty	e: To	tal/N
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid	113 103 Range Or		nics (DR	70 <sub>-</sub> 130 70 - 130					Client Sa		e: To	tal/N
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid Analysis Batch: 6161	113 103 Range Or	gar MB	nics (DR	70 <sub>-</sub> 130 70 - 130	RL	Unit		D		Prep Typ Prep	be: To Batch	otal/N 1: 613
-Bromofluorobenzene (Surr) .4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid .malysis Batch: 6161 .malyte :asoline Range Organics	113 103 Range Or	gar MB	MB Qualifier	70 <sub>-</sub> 130 70 - 130	RL	<u>Unit</u> mg/K	<u> </u>		Client Sa Prepared 08/06/21 09:48	Prep Ty	be: To Batch	otal/N 1: 61
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid Analysis Batch: 6161 malyte Gasoline Range Organics GRO)-C6-C10 iesel Range Organics (Over	113 103 Range Or	gan MB esult	MB Qualifier U	70 <sub>-</sub> 130 70 - 130				_ (	Prepared	Prep Typ Prep Analyzed	be: To Batch	otal/N 1: 61
-Bromofluorobenzene (Surr) .4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid .malysis Batch: 6161 .malyte Basoline Range Organics GRO)-C6-C10 liesel Range Organics (Over 10-C28)	113 103 Range Or	<b>MB</b> <b>esult</b> 50.0	MB Qualifier U	70 <sub>-</sub> 130 70 - 130	50.0	mg/K	g	(	Prepared 08/06/21 09:48 08/06/21 09:48	Analyzed           08/06/21         12:	<b>be: To</b> Batch 02	otal/N 1: 61
Bromofluorobenzene (Surr) 4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F ab Sample ID: MB 880-6170/1-A Matrix: Solid malysis Batch: 6161 malyte Hasoline Range Organics GRO)-C6-C10 iesel Range Organics (Over 10-C28) III Range Organics (Over C28-C36)	113 103 Range Or	MB sult	MB Qualifier U U	70 <sub>-</sub> 130 70 - 130	50.0	mg/K	g	(	Prepared	Prep Typ Prep Analyzed 08/06/21 12:	<b>be: To</b> Batch 02 02 02	otal/N 1: 617
Bromofluorobenzene (Surr) 4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F ab Sample ID: MB 880-6170/1-A latrix: Solid analysis Batch: 6161 nalyte asoline Range Organics GRO)-C6-C10 iesel Range Organics (Over 10-C28) II Range Organics (Over C28-C36)	113 103 Range Or	<b>MB</b> <b>esult</b> 50.0 50.0 50.0	MB Qualifier U U	70 <sub>-</sub> 130 70 - 130	50.0 50.0 50.0	mg/K mg/K mg/K	g	(	Prepared 08/06/21 09:48 08/06/21 09:48	Analyzed           08/06/21 12:           08/06/21 12:	<b>be: To</b> Batch 02 02 02	otal/N 1: 613
Bromofluorobenzene (Surr) 4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F ab Sample ID: MB 880-6170/1-A latrix: Solid analysis Batch: 6161 malyte asoline Range Organics GRO)-C6-C10 iesel Range Organics (Over 10-C28) II Range Organics (Over C28-C36) otal TPH	113 103 Range Or	MB esult 50.0 50.0 50.0 50.0 <i>MB</i>	MB Qualifier U U U	70 <sub>-</sub> 130 70 - 130	50.0       50.0       50.0       50.0	mg/K mg/K mg/K	g	(	Prepared 08/06/21 09:48 08/06/21 09:48 08/06/21 09:48 08/06/21 09:48	Prep Typ Prep Analyzed 08/06/21 12: 08/06/21 12: 08/06/21 12:	02 02 02 02 02	otal/N 1: 61 Dil F
Bromofluorobenzene (Surr) 4-Difluorobenzene (Surr) 2thod: 8015B NM - Diesel F ab Sample ID: MB 880-6170/1-A latrix: Solid nalysis Batch: 6161 nalyte asoline Range Organics SRO)-C6-C10 iesel Range Organics (Over 10-C28) II Range Organics (Over C28-C36) otal TPH urrogate	113 103 Range Or	MB esult 50.0 50.0 50.0 50.0 <i>MB</i>	MB Qualifier U U U U MB	70 - 130 70 - 130 <b>D) (GC)</b>	50.0 50.0 50.0 50.0 50.0	mg/K mg/K mg/K	g	( (	Prepared 08/06/21 09:48 08/06/21 09:48	Prep Typ Prep Analyzed 08/06/21 12: 08/06/21 12: 08/06/21 12: 08/06/21 12: 08/06/21 2: 08/06/21 2: 08	02 02 02 02	Dil F
Bromofluorobenzene (Surr) 4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F ab Sample ID: MB 880-6170/1-A latrix: Solid analysis Batch: 6161 nalyte asoline Range Organics GRO)-C6-C10 iesel Range Organics (Over 10-C28) II Range Organics (Over C28-C36) otal TPH urrogate -Chlorooctane	113 103 Range Or	MB esult 550.0 550.0 550.0 50.0 <i>MB</i> very	MB Qualifier U U U U MB	70 - 130 70 - 130 <b>O) (GC)</b>	50.0 50.0 50.0 50.0 50.0 <b>ts</b> 130	mg/K mg/K mg/K	g	( ( ( ( (	Prepared 08/06/21 09:48 08/06/21 09:48 08/06/21 09:48 08/06/21 09:48 Prepared	Prep Typ Prep   Analyzed 08/06/21 12: 08/06/21 12: 08/	02 02 02 02 02 02 02	otal/N 1: 61 Dil F
-Bromofluorobenzene (Surr) .4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid .nalysis Batch: 6161 .nalyte Basoline Range Organics GRO)-C6-C10 liesel Range Organics (Over 10-C28) II Range Organics (Over C28-C36) otal TPH 	113 103 Range Or Range Or Range Or State S	MB esult 550.0 550.0 550.0 550.0 MB vvery 92	MB Qualifier U U U U MB	70 - 130 70 - 130 <b>D) (GC)</b> 	50.0 50.0 50.0 50.0 50.0 <b>ts</b> 130	mg/K mg/K mg/K	g		Prepared           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48	Analyzed           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:	02 02 02 02 02 02 02 02 02 02 02	Dil F
-Bromofluorobenzene (Surr) ,4-Difluorobenzene (Surr) ethod: 8015B NM - Diesel F .ab Sample ID: MB 880-6170/1-A Matrix: Solid Malysis Batch: 6161 malyte Basoline Range Organics GRO)-C6-C10 biesel Range Organics (Over :10-C28) DII Range Organics (Over C28-C36) botal TPH Surrogate -Chlorooctane -Terphenyl .ab Sample ID: LCS 880-6170/2-	113 103 Range Or Range Or Range Or State S	MB esult 550.0 550.0 550.0 550.0 MB vvery 92	MB Qualifier U U U U MB	70 - 130 70 - 130 <b>D) (GC)</b> 	50.0 50.0 50.0 50.0 50.0 <b>ts</b> 130	mg/K mg/K mg/K	g		Prepared           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48	Prep Typ Prep   Analyzed 08/06/21 12: 08/06/21 12: 08/06/21 12: 08/06/21 12: 08/06/21 12: 08/06/21 12: 12: 10: Lab Con	<b>be: To</b> <b>Batch</b> 02 02 02 02 02 02 02 02 02 <b>trol S</b>	otal/N Dil F Dil F Dil F
I-Bromofluorobenzene (Surr) I,4-Difluorobenzene (Surr)	113 103 Range Or Range Or Range Or State S	MB esult 550.0 550.0 550.0 550.0 MB vvery 92	MB Qualifier U U U U MB	70 - 130 70 - 130 <b>D) (GC)</b> 	50.0 50.0 50.0 50.0 50.0 <b>ts</b> 130	mg/K mg/K mg/K	g		Prepared           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48           08/06/21         09:48	Analyzed           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:           08/06/21 12:	<b>De:</b> To         Batch         02         03         04         05         06         07         08         09         02         03         04         05         06         07         08         09         10         10         10         10         10         10         10         10         10         10         10         10         10	bital/N i: 617 Dil F Dil F

Eurofins Xenco, Carlsbad

# **QC Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1060-1 SDG: WSP TE012921045

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

Lab Sample ID: LCS 880-61 Matrix: Solid	7 <b>U/2-A</b>						Client	Sample	ID: Lab Co Prep T	ontrol Sa ype: To	
Analysis Batch: 6161										p Batch	
			Spike	LCS	LCS				%Rec.		
Analyte			Added		Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over			1000	765.7		mg/Kg		77	70 - 130		
C10-C28)						5 5					
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	86		70 - 130								
o-Terphenyl	81		70 - 130								
Lab Sample ID: LCSD 880-6	6170/3-A					Clie	nt Sam	nple ID: I	Lab Contro	I Sampl	e Du
Matrix: Solid									Prep T	ype: To	tal/N
Analysis Batch: 6161									Pre	p Batch	: <mark>61</mark> 7
			Spike	LCSD	LCSD				%Rec.		RP
Analyte			Added	Result	Qualifier	Unit	<u>D</u>	%Rec	Limits	RPD	Lin
Gasoline Range Organics (GRO)-C6-C10			1000	812.3		mg/Kg		81	70 - 130	3	
Diesel Range Organics (Over C10-C28)			1000	755.4		mg/Kg		76	70 - 130	1	:
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	84		70 - 130								
o-Terphenyl	81		70 - 130								
Lab Sample ID: 890-1045-A	-1-F MS							Client	Sample ID:	: Matrix	Spik
Matrix: Solid									Prep T	ype: To	tal/N
Analysis Batch: 6161									Pre	p Batch	: 617
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<50.0	U	995	907.0		mg/Kg		89	70 - 130		
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U	995	823.1		mg/Kg		83	70 <sub>-</sub> 130		
C10-C28)	140										
Surrogate	мз %Recovery	MS Qualifier	Limits								
1-Chlorooctane		quamer	70 - 130								
o-Terphenyl	73		70 - 130 70 - 130								
	4.0.400					~	ient C		Materia Or		lles
Lab Sample ID: 890-1045-A						G	ient 3	ampie IL	: Matrix Sp		
Matrix: Solid										ype: To	
Analysis Batch: 6161	Commi-	Samela	Calles	MOD	Men				Pre  %Rec.	p Batch	
Analista	-	Sample	Spike		MSD Ovelifier	l lusit	_	0/ D		000	RP
Analyte	Result <50.0	Qualifier	Added		Qualifier		D	%Rec	Limits		Lim
Gasoline Range Organics (GRO)-C6-C10				931.6		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	812.0		mg/Kg		81	70 - 130	1	:
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
Surrogate 1-Chlorooctane	<i>%Recovery</i> 84	Qualifier	Limits 70 - 130								

Eurofins Xenco, Carlsbad

72

o-Terphenyl

70 - 130

Client: WSP USA Inc.

# **QC Sample Results**

Job ID: 890-1060-1 SDG: WSP TE012921045

Project/Site: Elk Wallow 11 State #1 Method: 300.0 - Anions, Ion Chromatography

 Lab Sample ID: MB 880-6177/1-A										Client S	Sample ID:	Method	Blank
Matrix: Solid											-	Type: S	
Analysis Batch: 6181													
	м	B MB											
Analyte		It Qualifier		RL		Unit		<u>D</u>	Pr	epared	Analyz	ed	Dil Fac
Chloride	<5.0	0 U		5.00		mg/Kg	g				08/06/21	14:08	1
Lab Sample ID: LCS 880-6177/2-A								Clie	ent	Sample	D: Lab Co	ontrol Sa	ample
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 6181													
			Spike	L	cs	LCS					%Rec.		
Analyte			Added			Qualifier	Unit		D	%Rec	Limits		
Chloride			250	26	0.3		mg/Kg			104	90 - 110		
Lab Sample ID: LCSD 880-6177/3-A							CI	ient S	am	ple ID:	Lab Contro	I Sampl	le Dup
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 6181													
			Spike	LC	SD	LCSD					%Rec.		RPD
Analyte			Added	Res	ult	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride			250	26	0.2		mg/Kg			104	90 - 110	0	20
Lab Sample ID: 880-4846-A-23-B MS										Client	Sample ID	: Matrix	Spike
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 6181													
S	ample Sa	mple	Spike		ИS	MS					%Rec.		
Analyte I	Result Qu	alifier	Added	Res	ult	Qualifier	Unit		D	%Rec	Limits		
Chloride	<4.99 U		250	26	5.3		mg/Kg			105	90 - 110		
_ Lab Sample ID: 880-4846-A-23-C MSD	)							Client	t Sa	mple IC	): Matrix Sp	oike Dup	olicate
Matrix: Solid										-		Type: S	
Analysis Batch: 6181												-	
S	ample Sa	mple	Spike	м	SD	MSD					%Rec.		RPD
A secoluter 1	Result Qu	alifier	Added	Res	ult	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Analyte I	tesun an		Addod		and	quannoi	•		Ξ.	/01100			

Eurofins Xenco, Carlsbad
### **QC Association Summary**

Prep Type

Total/NA

Total/NA Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Matrix

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

**Client Sample ID** 

Method Blank

Matrix Spike

Lab Control Sample

Lab Control Sample Dup

Matrix Spike Duplicate

**Client Sample ID** 

Method Blank

Matrix Spike

Lab Control Sample

Lab Control Sample Dup

Matrix Spike Duplicate

FS02

FS04

FS02

FS04

**GC VOA** 

890-1060-1

890-1060-2

MB 880-6113/5-A

LCS 880-6113/1-A

LCSD 880-6113/2-A

880-4798-A-6-A MS

Lab Sample ID

MB 880-6113/5-A

LCS 880-6113/1-A

LCSD 880-6113/2-A

880-4798-A-6-A MS

880-4798-A-6-B MSD

890-1060-1

890-1060-2

880-4798-A-6-B MSD

Analysis Batch: 6155

Prep Batch: 6113

Prep Batch

### Job ID: 890-1060-1 SDG: WSP TE012921045

14

		5035	Solid
5		5035	Solid
		5035	Solid
6		5035	Solid
		5035	Solid
7		5035	Solid
		5035	Solid
8			
9	Prep Batch	Method	Matrix
	6113	8021B	Solid
10	6113	8021B	Solid
	6113	8021B	Solid
11	6113	8021B	Solid
	6113	8021B	Solid
12	6113	8021B	Solid
12	6113	8021B	Solid
13			

Method

### GC Semi VOA

### Analysis Batch: 6161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1060-1	FS02	Total/NA	Solid	8015B NM	6170
890-1060-2	FS04	Total/NA	Solid	8015B NM	6170
MB 880-6170/1-A	Method Blank	Total/NA	Solid	8015B NM	6170
LCS 880-6170/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6170
LCSD 880-6170/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6170
890-1045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	6170
890-1045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6170

### Prep Batch: 6170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1060-1	FS02	Total/NA	Solid	8015NM Prep	
890-1060-2	FS04	Total/NA	Solid	8015NM Prep	
MB 880-6170/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6170/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6170/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### HPLC/IC

### Leach Batch: 6177

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1060-1	FS02	Soluble	Solid	DI Leach	
890-1060-2	FS04	Soluble	Solid	DI Leach	
MB 880-6177/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6177/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6177/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-4846-A-23-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-4846-A-23-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

Released to Imaging: 2/8/2022 3:41:54 PM

### **QC** Association Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Job ID: 890-1060-1 SDG: WSP TE012921045

### HPLC/IC

### Analysis Batch: 6181

alysis Batch: 6181					
ab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
90-1060-1	FS02	Soluble	Solid	300.0	6177
90-1060-2	FS04	Soluble	Solid	300.0	6177
B 880-6177/1-A	Method Blank	Soluble	Solid	300.0	6177
CS 880-6177/2-A	Lab Control Sample	Soluble	Solid	300.0	6177
SD 880-6177/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6177
0-4846-A-23-B MS	Matrix Spike	Soluble	Solid	300.0	6177
80-4846-A-23-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6177

Job ID: 890-1060-1

Lab Sample ID: 890-1060-1

Lab Sample ID: 890-1060-2

Matrix: Solid

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

### **Client Sample ID: FS02**

Date Collected: 08/04/21 11:25 Date Received: 08/05/21 12:06

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6113	08/06/21 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	6155	08/06/21 12:12	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 14:06	AJ	XEN MID
Soluble	Leach	DI Leach			6177	08/06/21 11:31	SC	XEN MID
Soluble	Analysis	300.0		1	6181	08/06/21 14:57	SC	XEN MID

### **Client Sample ID: FS04** Date Collected: 08/04/21 11:58 Date Received: 08/05/21 12:06

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6113	08/06/21 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	6155	08/06/21 12:33	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			6177	08/06/21 11:31	SC	XEN MID
Soluble	Analysis	300.0		1	6181	08/06/21 15:13	SC	XEN MID

### Laboratory References:

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

Eurofins Xenco, Carlsbad

SDG: WSP TE012921045 Matrix: Solid 5

		Accreditation/C	ertification Summary		
Client: WSP USA Inc. Project/Site: Elk Wallo	w 11 State #1			-Job ID: 890-1060 SDG: WSP TE01292104	
Laboratory: Eurof					3
	analytes for this laborator	y were covered under each acc			-
Authority		Program	Identification Number	Expiration Date	
Texas		NELAP	T104704400-20-21	06-30-22	E
The following analytes	s are included in this repor	t, but the laboratory is not certif	ied by the governing authority. This list ma	av include analytes for which	5
the agency does not o		,,			
Analysis Method	Prep Method	Matrix	Analyte		
8015B NM	8015NM Prep	Solid	Total TPH		
8021B	5035	Solid	Total BTEX		
					8
					9
					10
					40
					13

Eurofins Xenco, Carlsbad

Released to Imaging: 2/8/2022 3:41:54 PM

.

Project/Site: Elk Wallow 11 State #1

### Job ID: 890-1060-1 SDG: WSP TE012921045

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

### Protocol References:

Client: WSP USA Inc.

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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

Eurofins Xenco, Carlsbad

### Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1060-1 SDG: WSP TE012921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1060-1	FS02	Solid	08/04/21 11:25	08/05/21 12:06	- 12
890-1060-2	FS04	Solid	08/04/21 11:58	08/05/21 12:06	- 10

Total 200.7 / 6010     200.8 / 6020:       Circle Method(s) and Metal(s) to be analyzed       Notice: Signature of this document and relinquishment of samples of samples. Xenco will be liable only for the cost of samples and shaled of Xenco. A minimum charge of \$75.00 will be applied to each project of the day of the day of the day.       Relinquished by: (Signature)     Recomplexity of the day of the day of the day of the day of the day.	F304	ntifica	THU: MAPPZIIO 46 1994
10 be analyzed       TCLP / SPLP 6010: 8RCRA         11 to be analyzed       TCLP / SPLP 6010: 8RCRA         12 signment of samples constitutes a valid purchase order from client correst of samples and shall not assume any responsibility for any losses or applied to each project and a charge of \$5 for each sample submitted         Received by: (Signature)       Received by: (Signature)	5 8-4-24 1158 AL	Rou Rus Rus Rus Rus Rus Rus Rus Rus Rus Ru	
PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co 010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn ter from client company to Xenco, Its affiliates and subcontractors. It ass y for any losses or expenses incurred by the client it such tosses are due ample submitted to Xenco, but not analyzed. These terms will be enforce Date/Time Relinquished to る、5、21 12002 4		Number of Containers P = P P = P	AFFE: PA. 2020. 02351, E Chain of Custody 0.4200 Dallas.TX (214) 902-0300 San Antonio.TX (210): so.TX (915) 585-3431 Lubbock.TX (806) 794-1296 Crastb Active Sec. 2000 West Palm A. (770) 449-8800 Tampa.FL (813) 520-2000 West Palm A. (770) 449-800 West Palm A. (770) 440 West Palm A. (770) 4
Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn         Mo Ni Se Ag Ti U       1631 / 245.1 / 7470 / 7471 : Hg         igns standard terms and conditions       1631 / 245.1 / 7470 / 7471 : Hg         to circumstances beyond the control       1         d unless previously negotiated.       Date/Time         y; (Signature)       Received by; (Signature)       Date/Time		Ddy	KP.01       AP1: 30 ~ 0\5~37588         Work Order No:         work Order No:         ad. NM (432) 704-5440         Beach, FL (561) 689-6701         Work Order Comments         Program: UST/PST PRP Brownfields RRC Superfund         State of Project:         Deliverables: EDD I Level III PST/UST ITRAP Level IV Deliverables: EDD I ADaPT Other:

## Received by OCD: 11/4/2021 2:30:53 PM

8/6/2021

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### Received by OCD: 11/4/2021 2:30:53 PM

Custody Seals Intact. Custody Seal No ∆ Yes ∆ No	Relinquished by	Reinquished by	Reinquished by Clue Curp 8.5.21	Empty Kit Relinquished by	Deliverable Requested I, II III IV Other (specify)	Possible Hazard Identification Unconfirmed	Note Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out 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 Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.					FS04 (890-1060-2)	FS02 (890-1060-1)		Sample Identification - Client ID (Lab ID)	Site:	Project Name Elk Wallow 11 State #1	Email	Phone 432-704-5440(Tel)	State Zip: TX, 79701	City Midland	Address 1211 W Florida Ave, ,	Company Eurofins Xenco	Client Contact: Shipping/Receiving	Client Information (Sub Contract Lab)	1059 N Canal St Carlsbad, NM 88220 Phone 575-988-3199 Fax: 575-988-3199	Eurofins Xenco, Carlsbad
	Date/Time:	Date/Time	DaterTime	Date	Primary Deliverable Rank 2		places the ownership of method analyte & an being analyzed the samples must be shipped um the signed Chain of Custody attesting to s					8/4/21 11 58 Mountain	8/4/21 11.25 Mountain	estive	Sample Type Sample Date Time G=grab)	SSOW#	Project #: 89000004	WO #	PO #		TAT Requested (days) <sup>.</sup>	Due Date Requested 8/6/2021		Phone	Sampler	Chain of Ct	
	Company	Company	Company	Time	Sp	Sai	ccreditation compliance upon I back to the Eurofins Xenco aid complicance to Eurofins					Solid	Solid	Preservation Code: XX	le (W=water S=solid, O=wasteloi, BT=Tissue, b) A=Air) Field Filtered Sa Perform MS/MSI	2010/10/00/10	21.27	A Martin	o}	and a state of the			Accredit NELAI	E-Mail. jessica krar	щ –	Chain of Custody Record	1.
Cooler Temperature(s) °C and Other Remarks	Received by	Reteived by	Repeived by MM MM		Requireme	Sample Disposal ( A fee may be	1 out subcontract laboratories This sam LLC laboratory or other instructions will Xenco LLC					× × ×	X X X		8015MOD_NM/801 300_ORGFM_28D/ 8021B/5035FP_Ca	DI_LE	EACH					Analysis Requested	Accreditations Required (See note) NELAP - Louisiana, NELAP - Texas	E-Mail. jessıca kramer@eurofinset.com	Jessica	ord	
emarks	Date/Time	Date/Time:	W. M. Margaret	Method of Shipment:		essed if samples are re	ple shipment is forwarded under chain be provided Any changes to accredit								Total Number of		ainei					uested		State of Origin New Mexico	Carrier Tracking No(s)		
	5	0	o W WM 11			than 1	⊦of-custody If the laborato ation status should be brou		<u></u>							Other:	K EDTA V	I Ice U J Di Water V	Amchlor S	V4 cid	HCL NaOH Zn Acetate	eservation Cod	Job # 890-1060-1	Page Page 1 of 1	COC No. 890-337 1		.seurofine
	Company	Company	Company			month) Months	ny does not currently ght to Eurofins Xenco				Pa				Special Instructions/Note:		<ul> <li>pH 4-5</li> <li>other (specify)</li> </ul>	<ul> <li>ISP Dodecanyorate</li> <li>Acetone</li> <li>MCAA</li> </ul>	H2SO4	- Na2O4S - Na2SO3	M Hexane N - None	••				Environment Testing America	

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City Midland

Job Number: 890-1060-1

SDG Number: WSP TE012921045

List Source: Eurofins Xenco, Carlsbad

### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1060 List Number: 1 Creator: Clifton, Cloe

<6mm (1/4").

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

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### Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1060-1 SDG Number: WSP TE012921045

List Creation: 08/06/21 10:56 AM

List Source: Eurofins Xenco, Midland

Login Number: 1060 List Number: 2 Creator: Copeland, Tatiana

<6mm (1/4").

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

Received by OCD: 11/4/2021 2:30:53 PM

# 🔅 eurofins

## Environment Testing America

## **ANALYTICAL REPORT**

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

### Laboratory Job ID: 890-1061-1

Laboratory Sample Delivery Group: WSP TE012921045 Client Project/Site: Elk Wallow 11 State #1

### For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/11/2021 11:59:23 AM Jessica Kramer, Project Manager

(432)704-5440 jessica.kramer@eurofinset.com

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

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



LINKS

Review your project results through

**Total** Access

Have a Question?

Ask-

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Laboratory Job ID: 890-1061-1 SDG: WSP TE012921045

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Job ID: 890-1061-1
SDG: WSP TE012921045

-		
Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
F2	MS/MSD RPD exceeds control limits	5
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	8
U	Indicates the analyte was analyzed for but not detected.	
Glossary		9
Abbreviation	These commonly used abbreviations may or may not be present in this report.	1(
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL MDA	EPA recommended "Maximum Contaminant Level"	
MDC	Minimum Detectable Activity (Radiochemistry) 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	

- RPD Relative Percent Difference, a measure of the relative difference between two points
- TEFToxicity Equivalent Factor (Dioxin)TEQToxicity Equivalent Quotient (Dioxin)
- TEQ Toxicity Equivalent Quoti TNTC Too Numerous To Count

Project/Site: Elk Wallow 11 State #1

4

5

### Job ID: 890-1061-1 SDG: WSP TE012921045

### Job ID: 890-1061-1

Client: WSP USA Inc.

### Laboratory: Eurofins Xenco, Carlsbad

### Narrative

Job Narrative 890-1061-1

### Receipt

The samples were received on 8/5/2021 12:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-6175 and analytical batch 880-6155 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

### GC Semi VOA

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

### HPLC/IC

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

RL

0.00198

0.00198

0.00198

0.00396

0.00198

0.00396

0.00396

Limits

70 - 130

70 - 130

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

08/06/21 11:27

08/06/21 11:27

08/06/21 11:27

08/06/21 11:27

08/06/21 11:27

08/06/21 11:27

08/06/21 11:27

Prepared

08/06/21 11:27

08/06/21 11:27

Job ID: 890-1061-1 SDG: WSP TE012921045

### **Client Sample ID: FS01**

Project/Site: Elk Wallow 11 State #1

Date Collected: 08/04/21 11:25 Date Received: 08/05/21 12:00

Sample Depth: - 12

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

### Lab Sample ID: 890-1061-1

Analyzed

08/07/21 01:20

08/07/21 01:20

08/07/21 01:20

08/07/21 01:20

08/07/21 01:20

08/07/21 01:20

08/07/21 01:20

Analyzed

08/07/21 01:20

08/07/21 01:20

Lab Sample ID: 890-1061-2

Matrix: Solid

Matrix: Solid

Dil

Dil

Fac	
1	
1	
1	
1	
1	
1	
1	
_	
Fac 1	
1	

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

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00198 U

<0.00198 U

<0.00198 U

<0.00396 U

<0.00198 U

<0.00396 U

<0.00396 U

%Recovery Qualifier

120 92

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 18:55	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 18:55	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 18:55	1	
Total TPH	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 18:55	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	08/06/21 09:48	08/06/21 18:55	1
o-Terphenyl	92		70 - 130	08/06/21 09:48	08/06/21 18:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.1		5.00	mg/Kg			08/10/21 17:02	1

### **Client Sample ID: SW07** Date Collected: 08/04/21 13:05

Date Received: 08/05/21 12:00

Sample Depth: 0 - 10

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
Total BTEX	<0.00401	U	0.00401	mg/Kg		08/06/21 11:27	08/07/21 01:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			08/06/21 11:27	08/07/21 01:40	1
1,4-Difluorobenzene (Surr)	95		70 - 130			08/06/21 11:27	08/07/21 01:40	1

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Job ID: 890-1061-1 SDG: WSP TE012921045

Lab Sample ID: 890-1061-2

### Client Sample ID: SW07

Project/Site: Elk Wallow 11 State #1

Date Collected: 08/04/21 13:05 Date Received: 08/05/21 12:00

Sample Depth: 0 - 10

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 19:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 19:15	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 19:15	1
Total TPH	<49.9	U	49.9	mg/Kg		08/06/21 09:48	08/06/21 19:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			08/06/21 09:48	08/06/21 19:15	1
o-Terphenyl	89		70 - 130			08/06/21 09:48	08/06/21 19:15	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

### **Client Sample ID: FS03**

Chloride

Date Collected: 08/04/21 15:10 Date Received: 08/05/21 12:00 Sample Depth: 0 - 10

Method: 8021B - Volatile Orga	inic Compounds	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		08/06/21 11:27	08/07/21 03:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130			08/06/21 11:27	08/07/21 03:43	1

								-
1,4-Difluorobenzene (Surr)	112		70 - 130			08/06/21 11:27	08/07/21 03:43	1
_ Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 19:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 19:35	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 19:35	1
Total TPH	<50.0	U	50.0	mg/Kg		08/06/21 09:48	08/06/21 19:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			08/06/21 09:48	08/06/21 19:35	1
o-Terphenyl	92		70 - 130			08/06/21 09:48	08/06/21 19:35	1

wethou. 300.0 - Anions, ion Chron	alography -	Soluble							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	17.4		5.05	mg/Kg			08/10/21 17:13	1	

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Matrix: Solid

5

# 34.6 4.98 mg/Kg 08/10/21 17:07 1 Lab Sample ID: 890-1061-3 Matrix: Solid 125 70 - 130 08/06/21 11:27 08/07/21 03:43 1

Project/Site: Elk Wallow 11 State #1

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00199 U

<0.00199 U

RL

0.00199

0.00199

Unit

mg/Kg

mg/Kg

D

Prepared

08/06/21 11:27

08/06/21 11:27

Job ID: 890-1061-1 SDG: WSP TE012921045

### **Client Sample ID: SW09**

Client: WSP USA Inc.

Date Collected: 08/04/21 15:34 Date Received: 08/05/21 12:00

Sample Depth: 0 - 10

Analyte

Benzene

Toluene

## Lab Sample ID: 890-1061-4

Analyzed

08/07/21 04:03

08/07/21 04:03

Matrix: Solid

501-4 Solid	3
3010	4
	5
Dil Fac	
1	6
1	
1	7
1	-
1	2
1	0
1	9
Dil Fac 1	10
1	
,	11
Dil Fac	12

		-							
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/06/21 11:27	08/07/21 04:03	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/06/21 11:27	08/07/21 04:03	1	-
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/06/21 11:27	08/07/21 04:03	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/06/21 11:27	08/07/21 04:03	1	
Total BTEX	<0.00398	U	0.00398	mg/Kg		08/06/21 11:27	08/07/21 04:03	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	7
4-Bromofluorobenzene (Surr)	111		70 - 130			08/06/21 11:27	08/07/21 04:03	1	
1,4-Difluorobenzene (Surr)	100		70 - 130			08/06/21 11:27	08/07/21 04:03	1	
Method: 8015B NM - Diesel Rang			51	1114	_	Descende	An charact	D!!	
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 19:55	1	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 19:55	1	ł
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 19:55	1	
Total TPH	<49.8	U	49.8	mg/Kg		08/06/21 09:48	08/06/21 19:55	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	89		70 - 130			08/06/21 09:48	08/06/21 19:55	1	
o-Terphenyl	91		70 - 130			08/06/21 09:48	08/06/21 19:55	1	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	17.4		5.04	mg/Kg			08/10/21 17:19	1	

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### **Surrogate Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
mple ID	Client Sample ID	(70-130)	(70-130)	
0-A-1-B MS	Matrix Spike	112	83	
50-A-1-C MSD	Matrix Spike Duplicate	88	96	
1-1	FS01	120	92	
61-2	SW07	115	95	
61-3	FS03	125	112	
61-4	SW09	111	100	
30-6175/1-A	Lab Control Sample	108	105	
880-6175/2-A	Lab Control Sample Dup	108	105	
80-6113/5-A	Method Blank	100	95	
80-6175/5-A	Method Blank	95	94	
urrogate Legend				

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

				Percent S
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1045-A-1-F MS	Matrix Spike	85	73	
890-1045-A-1-G MSD	Matrix Spike Duplicate	84	72	
890-1061-1	FS01	88	92	
890-1061-2	SW07	86	89	
890-1061-3	FS03	91	92	
890-1061-4	SW09	89	91	
LCS 880-6170/2-A	Lab Control Sample	86	81	
LCSD 880-6170/3-A	Lab Control Sample Dup	84	81	
MB 880-6170/1-A	Method Blank	92	94	

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Prep Type: Total/NA

Prep Type: Total/NA

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

Lab Sample ID: MB 880-6113/5-A	
M ( ) ( ) ( )	

Matrix: Solid Analysis Batch: 6155

Analysis Batch: 6155							Prep Bate	ch: 6113
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/06/21 08:30	08/06/21 11:30	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			08/06/21 08:30	08/06/21 11:30	1
1,4-Difluorobenzene (Surr)	95		70 - 130			08/06/21 08:30	08/06/21 11:30	1

### Lab Sample ID: MB 880-6175/5-A Matrix: Solid Analysis Batch: 6155

	IVIB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/06/21 11:27	08/06/21 22:56	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			08/06/21 11:27	08/06/21 22:56	1

70 - 130

94

### Lab Sample ID: LCS 880-6175/1-A Matrix: Solid

### Analysis Batch: 6155

1,4-Difluorobenzene (Surr)

<b>Re</b> 0.1 0.09		er Unit mg/Kg mg/Kg	<u>D</u>	%Rec 101	Limits
0.09	388	ma/Ka		~ ~ ~	
				94	70 <sub>-</sub> 130
0.09	)26	mg/Kg		90	70 - 130
) 0.1	341	mg/Kg		92	70 <sub>-</sub> 130
0.09	683	mg/Kg		97	70 - 130
				00	

	LUS	203	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

08/06/21 22:56

Prep Type: Total/NA

Prep Batch: 6175

**Client Sample ID: Lab Control Sample** 

08/06/21 11:27

Job ID: 890-1061-1 SDG: WSP TE012921045

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

**Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 6175

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Job ID: 890-1061-1 SDG: WSP TE012921045

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA

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

Lab Sample ID: LCSD 88 Matrix: Solid	0-6175/2-A				Clier	nt Sam	ple ID:	Lab Contro Prep 1	ol Sample Type: Tot	
Analysis Batch: 6155								Pre	p Batch	: 6175
		Spike	LCSD	LCSD				%Rec.		RPD
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene		0.100	0.1004		mg/Kg		100	70 - 130	1	35
Toluene		0.100	0.09154		mg/Kg		92	70 - 130	3	35
Ethylbenzene		0.100	0.09022		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene		0.200	0.1853		mg/Kg		93	70 - 130	1	35
o-Xylene		0.100	0.09673		mg/Kg		97	70 - 130	0	35
	LCSD LCSD									
Surrogato	% Pacavary Qualifiar	Limite								

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	108	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

### Lab Sample ID: 880-4850-A-1-B MS Matrix: Solid Analysis Batch: 6155

### Prep Batch: 6175 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Limits Unit D %Rec 0.05032 F1 Benzene <0.00200 U F1 F2 0.0998 mg/Kg 50 70 - 130 Toluene <0.00200 U F1 F2 0.0998 0.05855 F1 mg/Kg 58 70 - 130 <0.00200 U F1 F2 0.0998 0.05773 F1 58 70 - 130 Ethylbenzene mg/Kg <0.00399 U F1 F2 0.200 0.1145 F1 57 70 - 130 m-Xylene & p-Xylene mg/Kg 0.0998 <0.00200 U F1 F2 0.05629 F1 70 - 130 o-Xylene mg/Kg 56

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

### Lab Sample ID: 880-4850-A-1-C MSD Matrix: Solid Analysis Batch: 6155

Analysis Datch. 0100									110	Daton	. 0175
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U F1 F2	0.100	0.02992	F1 F2	mg/Kg		30	70 - 130	51	35
Toluene	<0.00200	U F1 F2	0.100	0.02988	F1 F2	mg/Kg		29	70 - 130	65	35
Ethylbenzene	<0.00200	U F1 F2	0.100	0.02959	F1 F2	mg/Kg		30	70 - 130	64	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.200	0.05385	F1 F2	mg/Kg		27	70 - 130	72	35
o-Xylene	<0.00200	U F1 F2	0.100	0.02941	F1 F2	mg/Kg		29	70 - 130	63	35
	MSD	MSD									

		130	
Surrogate	%Recovery G	Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

### Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

### Prep Batch: 6175

			%Rec.		RPD	
	D	%Rec	Limits	RPD	Limit	
ίg	_	30	70 - 130	51	35	
ίg		29	70 - 130	65	35	

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Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Lab Sample ID: MB 880-6170/1	-Δ									Client Sa	mple ID: M	ethod	Blank
Matrix: Solid	~									onent oc	Prep Ty		
Analysis Batch: 6161													: 6170
Analysis Datch. 0101		MB	МВ								пер	Daten	
Analyte	R		Qualifier	RL			Jnit	D	Р	repared	Analyzed		Dil Fac
Gasoline Range Organics		50.0					ng/Kg			6/21 09:48	08/06/21 12		1
(GRO)-C6-C10		.00.0	0	00.0	,		ng/ng		00/0	0/21 00.40	00/00/21 12	.02	
Diesel Range Organics (Over	<	50.0	U	50.0	)	r	ng/Kg		08/0	6/21 09:48	08/06/21 12	:02	1
C10-C28)				50.0	<b>`</b>		na/Va		00/0	6/01 00:40	00/06/01 10	.00	1
Oll Range Organics (Over C28-C36)		50.0		50.0			ng/Kg			6/21 09:48	08/06/21 12		1
Total TPH	<	50.0	0	50.0	)	r	ng/Kg		08/0	6/21 09:48	08/06/21 12	:02	1
		MВ	МВ										
Surrogate	%Reco	very	Qualifier	Limits					P	repared	Analyzed	1	Dil Fac
1-Chlorooctane		92		70 - 130	-				08/0	6/21 09:48	08/06/21 12	:02	1
o-Terphenyl		94		70 - 130					08/0	6/21 09:48	08/06/21 12	:02	1
Lab Sample ID: LCS 880-6170/	2 ^								lion	Sample	ID: Lab Con	trol S	omplo
-	2-A								mem	Sample			-
Matrix: Solid											Prep Ty		
Analysis Batch: 6161				Califo	1.00	1.00						Batch	: 6170
Avelate				Spike	LCS				-	0/ D	%Rec.		
Analyte				Added		Qualif			_ <u>D</u>		Limits		
Gasoline Range Organics				1000	833.5		mg/Kg			83	70 - 130		
(GRO)-C6-C10 Diesel Range Organics (Over				1000	765.7		mg/Kg			77	70 - 130		
C10-C28)				1000	705.7		my/rty			11	70 - 130		
010 020)													
	LCS												
Surrogate		Qua	lifier	Limits									
1-Chlorooctane	86			70 - 130									
o-Terphenyl	81			70 - 130									
							~	lla mé			ah Cantral (		D.
Lab Sample ID: LCSD 880-6170	J/3-A						U U	nem	Jan	ipie iD. L	ab Control S		
Matrix: Solid											Prep Ty		
Analysis Batch: 6161				<b>.</b>								Batch	: 6170
				Spike		LCSD			_	~-	%Rec.		RPD
Analyte				Added		Qualif			_ <u>D</u>	%Rec	Limits	RPD	Limit
Gasoline Range Organics				1000	812.3		mg/Kg			81	70 - 130	3	20
(GRO)-C6-C10 Diesel Range Organics (Over				1000	755.4		mg/Kg			76	70 - 130	1	20
C10-C28)				1000	755.4		mg/itg			70	70 - 150	1	20
0.00020)													
	LCSD												
Surrogate	%Recovery	Qua	lifier	Limits									
1-Chlorooctane	84			70 - 130									
o-Terphenyl	81			70 - 130									
	MC									Client	Comple ID: I	Actrix	Spike
Lab Sample ID: 890-1045-A-1-F	SIN S									Gient S	Sample ID: N		
Matrix: Solid											Prep Ty		
Analysis Batch: 6161	<b>c</b> ,	•		0		MC						Batch	: 6170
	Sample		•	Spike		MS			-	o/ <del>-</del>	%Rec.		
Analyte	Result		lifier	Added		Qualif			_ <u>D</u>	<u>%Rec</u>	Limits		
Gasoline Range Organics	<50.0	U		995	907.0		mg/Kg			89	70 <sub>-</sub> 130		
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	ш		995	823.1		mg/Kg			83	70 <sub>-</sub> 130		
C10-C28)	~50.0	0		330	020.1		iiig/rty			00	10 - 130		

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Job ID: 890-1061-1 SDG: WSP TE012921045

### Job ID: 890-1061-1 SDG: WSP TE012921045

Client: WSP USA Inc.
Project/Site: Elk Wallow 11 State #1

Lab Sample ID: 890-1045-A-1-F MS

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

Analysis Batch: 6161										Type: To p Batch	
Analysis Batch: 6161									Pre	p Batch	1. 017
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	85		70 - 130								
o-Terphenyl	73		70 - 130								
Lab Sample ID: 890-1045-A	-1-G MSD					C	Client S	ample IC	D: Matrix S	oike Duj	plica
Matrix: Solid									Prep 1	Type: To	tal/N
Analysis Batch: 6161									Pre	p Batch	: 61
	Sample	Sample	Spike	MSD	MSD				%Rec.		R
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lin
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	931.6		mg/Kg		91	70 - 130	3	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	812.0		mg/Kg		81	70 - 130	1	
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	72		70 - 130								
Iethod: 300.0 - Anions, Lab Sample ID: MB 880-625 Matrix: Solid		ograpny						Client S	Sample ID: Prep	Method Type: S	
Lab Sample ID: MB 880-625 Matrix: Solid								Client S			
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296	57/1-A	MB MB esult Qualifier		RL	Unit		D F		Prep	Type: S	olut
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 <sup>Analyte</sup>	57/1-A	MB MB		<b>RL</b> 5.00	<u>Unit</u> mg/K	g	<u>D</u> F	Client S		Type: S	olut
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62	57/1-A 	MB MB esult Qualifier				g		Prepared	Prep 	<b>Type: S</b> <u>red</u> 14:31 - ontrol S	Dil F
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid	57/1-A 	MB MB esult Qualifier				g		Prepared	Prep 	<b>Type: S</b> zed 14:31	Dil F
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid	57/1-A 	MB MB esult Qualifier	  Spike	5.00		<u>g</u>		Prepared	Prep 	<b>Type: S</b> <u>red</u> 14:31 - ontrol S	Dil F
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296	57/1-A 	MB MB esult Qualifier	Spike Added	5.00 LCS	mg/K	g Unit		Prepared	Prep Analyz 08/10/21 e ID: Lab Co Prep	<b>Type: S</b> <u>red</u> 14:31 - ontrol S	Dil F
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Analyte	57/1-A 	MB MB esult Qualifier		5.00 LCS	LCS	-	Clien	Prepared	Prep Analyz 08/10/21 Prep %Rec.	<b>Type: S</b> <u>red</u> 14:31 - ontrol S	Dil F
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Analyte Chloride	57/1-A Ri 	MB MB esult Qualifier	Added	5.00 LCS Result	LCS	Unit mg/Kg	Clien D	Prepared t Sample <u>%Rec</u> 99	Prep Analyz 08/10/21 e ID: Lab C Prep %Rec. Limits	Type: S           2ed           14:31           ontrol S           Type: S	Dil f amp colut
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCSD 880-6	57/1-A Ri 	MB MB esult Qualifier	Added	5.00 LCS Result	LCS	Unit mg/Kg	Clien D	Prepared t Sample <u>%Rec</u> 99	Prep Analyz 08/10/21 e ID: Lab Co Prep %Rec. Limits 90 - 110 Lab Contro	Type: S red 14:31 - ontrol S Type: S 	Dil F amp colut
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCSD 880-6 Matrix: Solid	57/1-A Ri 	MB MB esult Qualifier	Added	5.00 LCS Result	LCS	Unit mg/Kg	Clien D	Prepared t Sample <u>%Rec</u> 99	Prep Analyz 08/10/21 e ID: Lab Co Prep %Rec. Limits 90 - 110 Lab Contro	Type: S           2ed           14:31           ontrol S           Type: S	Dil F amp colut
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCSD 880-6 Matrix: Solid	57/1-A Ri 	MB MB esult Qualifier	Added	5.00 LCS Result 248.7	LCS	Unit mg/Kg	Clien D	Prepared t Sample <u>%Rec</u> 99	Prep Analyz 08/10/21 e ID: Lab Co Prep %Rec. Limits 90 - 110 Lab Contro	Type: S red 14:31 - ontrol S Type: S 	Dil F amp colut
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6296	57/1-A Ri 	MB MB esult Qualifier	Added 250	5.00 LCS Result 248.7	LCS Qualifier	Unit mg/Kg	Clien D	Prepared t Sample <u>%Rec</u> 99	Prep Analyz 08/10/21 Prep %Rec. Limits 90 - 110 Lab Controc Prep	Type: S red 14:31 - ontrol S Type: S 	Dil F amp colut colut colut R
Lab Sample ID: MB 880-625	57/1-A Ri 	MB MB esult Qualifier	Added 250 Spike	5.00 LCS Result 248.7	LCS Qualifier	Unit mg/Kg Cli	Clien D_ ent San	Prepared t Sample <u>%Rec</u> 99	Prep Analyz 08/10/21 e ID: Lab Co Prep %Rec. Limits 90 - 110 Lab Contro Prep %Rec.	Type: S red 14:31 - ontrol S Type: S ol Samp Type: S	Dil F amp olub
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Matrix: Solid Analyte Chloride Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6296 Analyte Chloride	57/1-A 	MB MB esult Qualifier	Added 250 Spike Added	5.00 LCS Result 248.7 LCSD Result	LCS Qualifier	Unit mg/Kg Cli	Clien D_ ent San	Prepared t Sample <u>%Rec</u> 99 nple ID: <u>%Rec</u> 99	Prep 	Type: S red 14:31 ontrol S Type: S ol Samp Type: S RPD 0	Dil F amp colub le Du colub Ri Lir
Lab Sample ID: MB 880-625 Matrix: Solid Analysis Batch: 6296 Analyte Chloride Lab Sample ID: LCS 880-62 Matrix: Solid Analysis Batch: 6296 Matrix: Solid Analyte Chloride Lab Sample ID: LCSD 880-6 Matrix: Solid Analysis Batch: 6296 Analyte	57/1-A 	MB MB esult Qualifier	Added 250 Spike Added	5.00 LCS Result 248.7 LCSD Result	LCS Qualifier	Unit mg/Kg Cli	Clien D_ ent San	Prepared t Sample <u>%Rec</u> 99 nple ID: <u>%Rec</u> 99	Prep Analyz 08/10/21 Prep %Rec. Limits 90 - 110 Lab Contro Prep %Rec. Limits 90 - 110 Sample ID	Type: S red 14:31 ontrol S Type: S ol Samp Type: S RPD 0	Dil F Dil F amp colut colut colut Ri Lir Spil

Analysis Batch: 6296										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	17.9		250	257.2		mg/Kg		96	90 - 110	 

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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Job ID: 890-1061-1 SDG: WSP TE012921045

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

Lab Sample ID: 880-4853-A- Matrix: Solid Analysis Batch: 6296			CI	Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble								
		Sample	Spike		MSD				%Rec.		RPD	5
Analyte		Qualifier	Added		Qualifier	Unit	<u>D</u>	%Rec	Limits		Limit	
Chloride	17.9		250	256.7		mg/Kg		96	90 - 110	0	20	
												7
												8
												9
												1:
												1

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### **QC** Association Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1061-1 SDG: WSP TE012921045

8021B

8021B

### **GC VOA**

### Prep Batch: 6113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-6113/5-A	Method Blank	Total/NA	Solid	5035	
analysis Batch: 6155					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1061-1	FS01	Total/NA	Solid	8021B	6175
890-1061-2	SW07	Total/NA	Solid	8021B	6175
890-1061-3	FS03	Total/NA	Solid	8021B	6175
890-1061-4	SW09	Total/NA	Solid	8021B	6175
MB 880-6113/5-A	Method Blank	Total/NA	Solid	8021B	6113
MB 880-6175/5-A	Method Blank	Total/NA	Solid	8021B	6175
LCS 880-6175/1-A	Lab Control Sample	Total/NA	Solid	8021B	6175
LCSD 880-6175/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6175

Total/NA

Total/NA

Solid

Solid

### Prep Batch: 6175

880-4850-A-1-B MS

880-4850-A-1-C MSD

Matrix Spike

Matrix Spike Duplicate

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1061-1	FS01	Total/NA	Solid	5035	
890-1061-2	SW07	Total/NA	Solid	5035	
890-1061-3	FS03	Total/NA	Solid	5035	
890-1061-4	SW09	Total/NA	Solid	5035	
MB 880-6175/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6175/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6175/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-4850-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-4850-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

### GC Semi VOA

### Analysis Batch: 6161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1061-1	FS01	Total/NA	Solid	8015B NM	6170
890-1061-2	SW07	Total/NA	Solid	8015B NM	6170
890-1061-3	FS03	Total/NA	Solid	8015B NM	6170
890-1061-4	SW09	Total/NA	Solid	8015B NM	6170
MB 880-6170/1-A	Method Blank	Total/NA	Solid	8015B NM	6170
LCS 880-6170/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6170
LCSD 880-6170/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6170
890-1045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	6170
890-1045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6170

### Prep Batch: 6170

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1061-1	FS01	Total/NA	Solid	8015NM Prep	
890-1061-2	SW07	Total/NA	Solid	8015NM Prep	
890-1061-3	FS03	Total/NA	Solid	8015NM Prep	
890-1061-4	SW09	Total/NA	Solid	8015NM Prep	
MB 880-6170/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6170/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6170/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

### Eurofins Xenco, Carlsbad

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12 13

6175

Job ID: 890-1061-1 SDG: WSP TE012921045

### GC Semi VOA (Continued)

Project/Site: Elk Wallow 11 State #1

### Prep Batch: 6170 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### HPLC/IC

### Leach Batch: 6257

Client: WSP USA Inc.

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1061-1	FS01	Soluble	Solid	DI Leach	
890-1061-2	SW07	Soluble	Solid	DI Leach	
890-1061-3	FS03	Soluble	Solid	DI Leach	
890-1061-4	SW09	Soluble	Solid	DI Leach	
MB 880-6257/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6257/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6257/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-4853-A-13-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-4853-A-13-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

### Analysis Batch: 6296

890-1061-2	SW07	Soluble	Solid	DI Leach		8
890-1061-3	FS03	Soluble	Solid	DI Leach		
890-1061-4	SW09	Soluble	Solid	DI Leach		Q
MB 880-6257/1-A	Method Blank	Soluble	Solid	DI Leach		3
LCS 880-6257/2-A	Lab Control Sample	Soluble	Solid	DI Leach		10
LCSD 880-6257/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach		U
880-4853-A-13-B MS	Matrix Spike	Soluble	Solid	DI Leach		
880-4853-A-13-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach		11
Analysis Batch: 6296						12
Analysis Batch: 6296	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	12
	Client Sample ID FS01	Prep Type Soluble	Matrix Solid	Method 300.0	Prep Batch 6257	12 13
Lab Sample ID	•					12 13
Lab Sample ID 890-1061-1	FS01	Soluble	Solid	300.0	6257	12 13 14
Lab Sample ID 890-1061-1 890-1061-2	FS01 SW07	Soluble	Solid Solid	300.0 300.0	6257 6257	12 13 14
Lab Sample ID 890-1061-1 890-1061-2 890-1061-3	FS01 SW07 FS03	Soluble Soluble Soluble	Solid Solid Solid	300.0 300.0 300.0	6257 6257 6257	12 13 14
Lab Sample ID 890-1061-1 890-1061-2 890-1061-3 890-1061-4	FS01 SW07 FS03 SW09	Soluble Soluble Soluble Soluble	Solid Solid Solid Solid	300.0 300.0 300.0 300.0	6257 6257 6257 6257 6257	12 13 14
Lab Sample ID 890-1061-1 890-1061-2 890-1061-3 890-1061-4 MB 880-6257/1-A	FS01 SW07 FS03 SW09 Method Blank	Soluble Soluble Soluble Soluble Soluble	Solid Solid Solid Solid Solid	300.0 300.0 300.0 300.0 300.0 300.0	6257 6257 6257 6257 6257 6257	12 13 14
Lab Sample ID 890-1061-1 890-1061-2 890-1061-3 890-1061-4 MB 880-6257/1-A LCS 880-6257/2-A	FS01 SW07 FS03 SW09 Method Blank Lab Control Sample	Soluble Soluble Soluble Soluble Soluble Soluble	Solid Solid Solid Solid Solid Solid	300.0 300.0 300.0 300.0 300.0 300.0 300.0	6257 6257 6257 6257 6257 6257 6257	12 13 14

5

Eurofins Xenco, Carlsbad

### Lab Chronicle

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

### **Client Sample ID: FS01**

Date Collected: 08/04/21 11:25 Date Received: 08/05/21 12:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6175	08/06/21 11:27	MR	XEN MID
Total/NA	Analysis	8021B		1	6155	08/07/21 01:20	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 18:55	AJ	XEN MID
Soluble	Leach	DI Leach			6257	08/09/21 14:55	СН	XEN MID
Soluble	Analysis	300.0		1	6296	08/10/21 17:02	CH	XEN MID

### **Client Sample ID: SW07** Date Collected: 08/04/21 13:05 Date Received: 08/05/21 12:00

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6175	08/06/21 11:27	MR	XEN MID
Total/NA	Analysis	8021B		1	6155	08/07/21 01:40	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 19:15	AJ	XEN MID
Soluble	Leach	DI Leach			6257	08/09/21 14:55	СН	XEN MID
Soluble	Analysis	300.0		1	6296	08/10/21 17:07	СН	XEN MID

### **Client Sample ID: FS03**

### Date Collected: 08/04/21 15:10 Date Received: 08/05/21 12:00

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6175	08/06/21 11:27	MR	XEN MID
Total/NA	Analysis	8021B		1	6155	08/07/21 03:43	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 19:35	AJ	XEN MID
Soluble	Leach	DI Leach			6257	08/09/21 14:55	СН	XEN MID
Soluble	Analysis	300.0		1	6296	08/10/21 17:13	СН	XEN MID

### **Client Sample ID: SW09** Date Collected: 08/04/21 15:34 Date Received: 08/05/21 12:00

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6175	08/06/21 11:27	MR	XEN MID
Total/NA	Analysis	8021B		1	6155	08/07/21 04:03	MR	XEN MID
Total/NA	Prep	8015NM Prep			6170	08/06/21 09:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6161	08/06/21 19:55	AJ	XEN MID
Soluble	Leach	DI Leach			6257	08/09/21 14:55	СН	XEN MID
Soluble	Analysis	300.0		1	6296	08/10/21 17:19	СН	XEN MID

### Laboratory References:

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

Eurofins Xenco, Carlsbad

Job ID: 890-1061-1 SDG: WSP TE012921045

### Lab Sample ID: 890-1061-1 Matrix: Solid

Lab Sample ID: 890-1061-2

Matrix: Solid

5 9

### Lab Sample ID: 890-1061-3 Matrix: Solid

Lab Sample ID: 890-1061-4

Matrix: Solid

	Α	ccreditation/C	ertification Summary		
Client: WSP USA Inc. Project/Site: Elk Wallov	w 11 State #1			Job ID: 890-1061-1 SDG: WSP TE012921045	2
-	ins Xenco, Midland				
Unless otherwise noted, all a	analytes for this laboratory we	re covered under each acc	reditation/certification below.		
Authority	Pro	ogram	Identification Number	Expiration Date	
Texas	NE	LAP	T104704400-20-21	06-30-22	
The following analytes	are included in this report, bu	t the laboratory is not certil	ied by the governing authority. This list ma	ay include analytes for which	5
the agency does not of					
Analysis Method	Prep Method	Matrix	Analyte		
8015B NM 8021B	8015NM Prep 5035	Solid Solid	Total TPH Total BTEX		
00210	5055	Solid			
					8
					9
					10
					10
					13

Eurofins Xenco, Carlsbad

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### **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

SDG: WSP TE012921045

lethod	Method Description	Protocol	Laboratory
021B	Volatile Organic Compounds (GC)	SW846	XEN MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
00.0	Anions, Ion Chromatography	MCAWW	XEN MID
035	Closed System Purge and Trap	SW846	XEN MID
015NM Prep	Microextraction	SW846	XEN MID
I Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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

Job ID: 890-1061-1

Eurofins Xenco, Carlsbad

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## Job ID: 890-1061-1

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

SDG: WSP TE012921045	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1061-1	FS01	Solid	08/04/21 11:25	08/05/21 12:00	- 12	
890-1061-2	SW07	Solid	08/04/21 13:05	08/05/21 12:00	0 - 10	
890-1061-3	FS03	Solid	08/04/21 15:10	08/05/21 12:00	0 - 10	5
890-1061-4	SW09	Solid	08/04/21 15:34	08/05/21 12:00	0 - 10	J
						8
						9
						12

Instal       ZUU, / found       ZUU, 8 / 60201       ONCHA       Install       ONCHA       Install       ONCHA       Install       Oncha       Design and besign and	Number of Containe		
Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag pany to Xenco, its affiliates and subcontractors. It assigns standard terms expenses incurred by the client if such losses are due to circumstances be o Xenco, but not analyzed. These terms will be enforced unless previously o Xenco Agrico 2 • 5-2, , ,200 2 • 6		SIZ W Mernod St. (curlsbad, NM & 8220 www.p. com analysis analysis	0233 . ExP. 01 F Custody 02-0300 San Antonio,TX (210) 509- 0500ck,TX (806) 794-1296 Craslbad, 154 (31) 520-2000 West Palm Bea FL (31) 520-2000 West Palm Bea
teceived by: (Signature)		Work Order Comments         Program: UST/PST    PRP    Brownfields    RRC    Superfund           State of Project:         Reporting:Level II    Level III    PST/UST    TRRP    Level IV            Deliverables: EDD    ADaPT    Other:         Deliverables: EDD    ADaPT    Other:         None: NO         HNO3: HN         HNO3: HN         HCL: HL	5-37532 Wa

### Received by OCD: 11/4/2021 2:30:53 PM

8/11/2021

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### Received by OCD: 11/4/2021 2:30:53 PM

Custody Seals Intact ∆ Yes ∆ No	Relinquished by	0	Relinquished by Cur Cur S. 5.21	Empty Kit Relinquished by	Deliverable Requested I, II III IV Other (specify)	Possible Hazard Identification Unconfirmed	Note Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out 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 Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.					SW09 (890-1061-4)	FS03 (890-1061-3)	SW07 (890-1061-2)	FS01 (890-1061-1)		Sample Identification - Client ID (Lab ID)	Samale Montfileation - Client ID (1 at ID)	Elk Wallow 11 State #1	Email Droiert Name	Phone 432-704-5440(Tel)	State, Zip: TX 79701	City Midland	Address. 1211 W Florida Ave, ,	Company Eurofins Xenco	Client Contact. Shipping/Receiving	Client Information (Sub Contract Lab)	1089 N Canal St. Carlsbad, NM 88220 Phone 575-988-3199 Fax: 575-988-3199	Eurofins Xenco, Carlsbad
	Date/Time	Date/Time	Date/Time		Primary Deliverable Rank		.C places the ownershi ix being analyzed the s eturn the signed Chain					8/4/21	8/4/21	8/4/21	8/4/21	N	Sample Date		89000004	WO #	PO#		TAT Requested (days)	Due Date Requested 8/11/2021		Phone.	Sampler:		
				Date	rable Rank		ip of method a samples must i of Custody at					15 34 Mountain	15 10 Mountain	13 05 Mountain	11 25 Mountain	X	Time	Sample					lays)	ed.		-		Chain	
					2		nalyte & accreate be shipped bac testing to said of									Preserva	G=grab)	Sample Type (C=comp,										of Cus	1
	Company	Company	Company				ditation complia k to the Eurofir complicance to					Solid	Solid	Solid	Solid	Preservation Code	A=Air)	Matrix (W≊water S≕solid, O≊waste/oil, BT=Tissue,								E-Mailt Jessic	Lab PM Kramer	Chain of Custody Record	
				Time	S	S	nce upo 1s Xenc Eurofin:									X	1.0000	ield Filtered Sam erform MS/MSD	WOGK NUL	035552855" 8/~	No)	ander and the first of the second second Second second	0.0			E-Mail:  essica kramer@eurofinset.com		leco	
Coo	Rece	Red	Pee		Special Instructions/QC Requirements	 	on out s o LLC I s Xenco			-	1	×	×	×	×		i Sanda I	015MOD_NM/8015N	(hadistaa)	No Hardon	II TPH	n Berren die der ver	a loontool		Accreditations Required (See note) NELAP - Louisiana, NELAP -	mer@	Jessica	ord	
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Cooler Temperature(s) °C and Other Remarks					ents	<mark>assessed if san</mark> Disposal By Lab	nple shi be prov																	Analysis Requested		State New	Carrie		
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	Date/Time	Date/Time	Date/Time:	ipment		ples	arded u anges t			_								<u></u>									s).		
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		4 8				Sample Disposal ( A fee may be assessed if samples are retained longer Return To Client Disposal By Lab Archive For	custod n statu							:					L EDA	I Ice J DI Wat K EDTA			A - NOL B - NaOH	reser	Job #: 890-1061-1	<sub>Page</sub> Page 1 of 1	COC No: 890-337 1	י נ	
		Ċ				ger th	/ If the ; should									1	Specia		-	ice DI Water EDTA	Amchlor Ascorbic Acid	Nitric Acid NaHSO4	H	Preservation Codes:	61-1	of 1	: 7 1		.»? eurofins
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### Login Sample Receipt Checklist

True

True

True

True N/A

True

N/A

Client: WSP USA Inc.

Login Number: 1061 List Number: 1 Creator: Clifton, Cloe

Containers are not broken or leaking.

Sample bottles are completely filled.

Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

Sample collection date/times are provided.

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

Appropriate sample containers are used.

Question Answer Comment The cooler's custody seal, if present, is intact. True Sample custody seals, if present, are intact. True True The cooler or samples do not appear to have been compromised or tampered with. 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 True Samples are received within Holding Time (excluding tests with immediate HTs) True Sample containers have legible labels.

Job Number: 890-1061-1

SDG Number: WSP TE012921045

List Source: Eurofins Xenco, Carlsbad

Eurofins Xenco, Carlsbad Released to Imaging: 2/8/2022 3:41:54 PM

### Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1061-1

SDG Number: WSP TE012921045

List Source: Eurofins Xenco, Midland List Creation: 08/06/21 10:56 AM

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м	5
	8
	9
	13
	14

Login Number: 1061 List Number: 2 Creator: Copeland, Tatiana

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

Received by OCD: 11/4/2021 2:30:53 PM

# discrete the second sec

## Environment Testing America

## **ANALYTICAL REPORT**

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

### Laboratory Job ID: 890-1088-1

Laboratory Sample Delivery Group: TE012921045 Client Project/Site: Elk Wallow 11 State #1

### For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/11/2021 8:27:36 PM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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

LINKS **Review your project** results through **Total** Access Have a Question? Ask-The Expert Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/8/2022 3:41:54 PM

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Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Page 108 of 211

2

Job ID: 890-1088-	-1
SDG: TE01292104	-5

### Qualifiers

		5
GC VOA		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
F2	MS/MSD RPD exceeds control limits	5
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		8
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	9
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	
0/ D		

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count
Project/Site: Elk Wallow 11 State #1

4

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#### Job ID: 890-1088-1 SDG: TE012921045

#### Job ID: 890-1088-1

Client: WSP USA Inc.

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1088-1

#### Receipt

The samples were received on 8/10/2021 1:08 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

#### GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: SW08 (890-1088-1) and SW10 (890-1088-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### GC Semi VOA

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

#### HPLC/IC

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

Job ID: 890-1088-1 SDG: TE012921045

#### **Client Sample ID: SW08**

Project/Site: Elk Wallow 11 State #1

Client: WSP USA Inc.

Lab Sample ID: 890-1088-1

#### d

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Matrix: Solid

ate Collected: 08/10/21 10:30 ate Received: 08/10/21 13:08 ample Depth: 0 - 10							Matri	ix: Solic
Method: 8021B - Volatile Organic	c Compounds (	GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/11/21 11:25	08/11/21 12:09	
Toluene	<0.00200	U	0.00200	mg/Kg		08/11/21 11:25	08/11/21 12:09	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/11/21 11:25	08/11/21 12:09	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/11/21 11:25	08/11/21 12:09	
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/11/21 11:25	08/11/21 12:09	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/11/21 11:25	08/11/21 12:09	
Total BTEX	<0.00401	U	0.00401	mg/Kg		08/11/21 11:25	08/11/21 12:09	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130			08/11/21 11:25	08/11/21 12:09	
1,4-Difluorobenzene (Surr)	123		70 - 130			08/11/21 11:25	08/11/21 12:09	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/11/21 10:19	08/11/21 14:50	
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		08/11/21 10:19	08/11/21 14:50	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8		49.8	mg/Kg		08/11/21 10:19	08/11/21 14:50	• • • • • • • •
Total TPH	<49.8	U	49.8	mg/Kg		08/11/21 10:19	08/11/21 14:50	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	101		70 - 130			08/11/21 10:19	08/11/21 14:50	1
o-Terphenyl	113		70 - 130			08/11/21 10:19	08/11/21 14:50	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	719	F1	5.04	mg/Kg			08/11/21 18:23	1

#### **Client Sample ID: SW10** Date Collected: 08/10/21 10:36 Date Received: 08/10/21 13:08

Sample Depth: 0 - 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		08/11/21 11:25	08/11/21 12:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130			08/11/21 11:25	08/11/21 12:35	1
1,4-Difluorobenzene (Surr)	125		70 - 130			08/11/21 11:25	08/11/21 12:35	1

Lab Sample ID: 890-1088-2

Released to Imaging: 2/8/2022 3:41:54 PM

Job ID: 890-1088-1

SDG: TE012921045

#### **Client Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

#### Client Sample ID: SW10

Date Collected: 08/10/21 10:36 Date Received: 08/10/21 13:08

Sample Depth: 0 - 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/11/21 10:19	08/11/21 15:11	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/11/21 10:19	08/11/21 15:11	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/11/21 10:19	08/11/21 15:11	1
Total TPH	<50.0	U	50.0	mg/Kg		08/11/21 10:19	08/11/21 15:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			08/11/21 10:19	08/11/21 15:11	1
o-Terphenyl	119		70 - 130			08/11/21 10:19	08/11/21 15:11	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1090		4.97	mg/Kg			08/11/21 18:38	1

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Lab Sample ID: 890-1088-2 Matrix: Solid

5

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

#### Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-1077-A-16-B MS	Matrix Spike	275 S1+	106		
890-1077-A-16-C MSD	Matrix Spike Duplicate	152 S1+	128		
890-1088-1	SW08	150 S1+	123		
890-1088-2	SW10	162 S1+	125		
LCS 880-6315/1-A	Lab Control Sample	133 S1+	129		
LCSD 880-6315/2-A	Lab Control Sample Dup	128	123		
MB 880-6281/5-A	Method Blank	80	98		
MB 880-6315/5-A	Method Blank	83	107		
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

#### Matrix: Solid

		1CO1	OTPH1
b Sample ID	Client Sample ID	(70-130)	(70-130)
0-4997-A-1-E MS	Matrix Spike	91	95
0-4997-A-1-F MSD	Matrix Spike Duplicate	90	96
0-1088-1	SW08	101	113
0-1088-2	SW10	105	119
S 880-6382/2-A	Lab Control Sample	78	80
SD 880-6382/3-A	Lab Control Sample Dup	83	87
8 880-6382/1-A	Method Blank	83	98
	-4997-A-1-E MS -4997-A-1-F MSD -1088-1 -1088-2 5 880-6382/2-A SD 880-6382/3-A	-4997-A-1-E MSMatrix Spike-4997-A-1-F MSDMatrix Spike Duplicate-1088-1SW08-1088-2SW106 880-6382/2-ALab Control SampleSD 880-6382/3-ALab Control Sample Dup	Sample ID         Client Sample ID         (70-130)           -4997-A-1-E MS         Matrix Spike         91           -4997-A-1-F MSD         Matrix Spike Duplicate         90           -1088-1         SW08         101           -1088-2         SW10         105           6 880-6382/2-A         Lab Control Sample Dup         83

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-1088-1 SDG: TE012921045

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Prep Type: Total/NA

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

 Lab Sample ID: MB 880-6281/5-A								Client S	ample ID: Metho	od Blank
Matrix: Solid									Prep Type:	Total/NA
Analysis Batch: 6278									Prep Bat	ch: 6281
	MB	МВ								
Analyte	Result	Qualifier	RL		Unit		D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/K	g	_	08/10/21 08:43	08/10/21 12:59	1
Toluene	<0.00200	U	0.00200		mg/K	g		08/10/21 08:43	08/10/21 12:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/K	g		08/10/21 08:43	08/10/21 12:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/K	g		08/10/21 08:43	08/10/21 12:59	1
o-Xylene	<0.00200	U	0.00200		mg/K	g		08/10/21 08:43	08/10/21 12:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/K	g		08/10/21 08:43	08/10/21 12:59	1
Total BTEX	<0.00400	U	0.00400		mg/K	g		08/10/21 08:43	08/10/21 12:59	1
	МВ	МВ								
Surrogate	%Recovery	Qualifier	Limits					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130					08/10/21 08:4	3 08/10/21 12:59	1
1,4-Difluorobenzene (Surr)	98		70 - 130					08/10/21 08:4	8 08/10/21 12:59	1
_ Lab Sample ID: MB 880-6315/5-A								Client S	ample ID: Metho	od Blank
Matrix: Solid								onone e	Prep Type:	
Analysis Batch: 6278									Prep Bat	
Analysis Baton. 6216	МВ	мв							Trop But	
Analyte	Result	Qualifier	RL		Unit		D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/K	g	_	08/10/21 11:34	08/11/21 02:21	1
Toluene	<0.00200	U	0.00200		mg/K	g		08/10/21 11:34	08/11/21 02:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/K	g		08/10/21 11:34	08/11/21 02:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/K	g		08/10/21 11:34	08/11/21 02:21	1
o-Xylene	<0.00200	U	0.00200		mg/K	g		08/10/21 11:34	08/11/21 02:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/K	g		08/10/21 11:34	08/11/21 02:21	1
Total BTEX	<0.00400	U	0.00400		mg/K	g		08/10/21 11:34	08/11/21 02:21	1
	МВ	МВ								
Surrogate	%Recovery	Qualifier	Limits					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130					08/10/21 11:34	08/11/21 02:21	1
1,4-Difluorobenzene (Surr)	107		70 - 130					08/10/21 11:3	08/11/21 02:21	1
Lab Sample ID: LCS 880-6315/1-A							С	lient Sample	ID: Lab Control	Sample
Matrix: Solid							_		Prep Type:	
Analysis Batch: 6278									Prep Bat	
•			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits	
Benzene			0.100	0.1255		mg/Kg		126	70 - 130	
Toluene			0.100	0.1164		mg/Kg		116	70 - 130	

	LCS		
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130
1,4-Difluorobenzene (Surr)	129		70 - 130

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0.200

0.100

0.2407

0.1207

mg/Kg

mg/Kg

120

121

70 - 130

70 - 130

m-Xylene & p-Xylene

o-Xylene

Job ID: 890-1088-1 SDG: TE012921045

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1088-1 SDG: TE012921045

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

Lab Sample ID: LCSD	880-6315/2-A				Clier	nt Sam	ple ID:	Lab Contro		
Matrix: Solid								Prep 1	Type: Tot	tal/NA
Analysis Batch: 6278								Pre	p Batch	: 6315
		Spike	LCSD	LCSD				%Rec.		RPD
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene		0.100	0.1249		mg/Kg		125	70 - 130	0	35
Toluene		0.100	0.1135		mg/Kg		113	70 - 130	3	35
Ethylbenzene		0.100	0.1136		mg/Kg		114	70 - 130	7	35
m-Xylene & p-Xylene		0.200	0.2249		mg/Kg		112	70 _ 130	7	35
o-Xylene		0.100	0.1136		mg/Kg		114	70 - 130	6	35
	LCSD LCSD									
0	0/ D 0 1/5	1								

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

#### Lab Sample ID: 890-1077-A-16-B MS Matrix: Solid Analysis Batch: 6278

Analysis Batch: 6278									Prep Batch: 631
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	< 0.00202	U F1	0.0994	0.06775	F1	mg/Kg		68	70 - 130
Toluene	<0.00202	U F2 F1	0.0994	0.06321	F1	mg/Kg		64	70 - 130
Ethylbenzene	<0.00202	U	0.0994	0.07514		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1446		mg/Kg		73	70 - 130
o-Xylene	< 0.00202	U	0.0994	0.07608		mg/Kg		77	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	275	S1+	70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

#### Lab Sample ID: 890-1077-A-16-C MSD Matrix: Solid Analysis Batch: 6278

Analysis Daten. 0210									110	p Daten	. 0313
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U F1	0.0998	0.08572		mg/Kg		86	70 - 130	23	35
Toluene	<0.00202	U F2 F1	0.0998	0.09496	F2	mg/Kg		95	70 - 130	40	35
Ethylbenzene	<0.00202	U	0.0998	0.09295		mg/Kg		93	70 - 130	21	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1820		mg/Kg		91	70 - 130	23	35
o-Xylene	<0.00202	U	0.0998	0.09425		mg/Kg		94	70 - 130	21	35
	MSD	MSD									

	WISD	WISD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130
1,4-Difluorobenzene (Surr)	128		70 - 130

#### Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

**Client Sample ID: Matrix Spike** 

Prep Type: Total/NA

#### Prep Batch: 6315

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Lab Sample ID: MB 880-6382/	I-A								Client Sa	mple ID: I	Method	Blank
Matrix: Solid												otal/NA
Analysis Batch: 6361												h: 6382
-	ME	3 MB										
Analyte	Resul	t Qualifier	RL		Unit		D	Р	repared	Analyz	ed	Dil Fac
Gasoline Range Organics	<50.0	D U	50.0		mg/ł	۲g	_	08/1	1/21 10:19	08/11/21	12:00	1
(GRO)-C6-C10					-	-						
Diesel Range Organics (Over C10-C28)	<50.0	) U	50.0		mg/ł	۲g		08/1	1/21 10:19	08/11/21	12:00	1
Oll Range Organics (Over C28-C36)	<50.0	) U	50.0		mg/ł	≺g		08/1	1/21 10:19	08/11/21 <sup>-</sup>	12:00	1
Total TPH	<50.0	) U	50.0		mg/ł	<g< td=""><td></td><td>08/1</td><td>1/21 10:19</td><td>08/11/21</td><td>12:00</td><td>1</td></g<>		08/1	1/21 10:19	08/11/21	12:00	1
	м	B MB										
Surrogate	%Recover		Limits					D	repared	Analyz	od	Dil Fac
1-Chlorooctane			70 - 130						1/21 10:19	08/11/21		1
o-Terphenyl	91		70 - 130						1/21 10:19	08/11/21		1
			10 - 100					00,1		00,11,21	2.00	
Lab Sample ID: LCS 880-6382	/2-A						С	lient	Sample	D: Lab Co	ontrol S	Sample
Matrix: Solid												otal/NA
Analysis Batch: 6361												h: 6382
-			Spike	LCS	LCS					%Rec.		
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics			1000	782.0		mg/Kg			78	70 - 130		
(GRO)-C6-C10						0.0						
Diesel Range Organics (Over			1000	711.3		mg/Kg			71	70 - 130		
C10-C28)												
	LCS LC	s										
Surrogate		alifier	Limits									
1-Chlorooctane	78		70 - 130									
o-Terphenyl	80		70 - 130									
Lab Sample ID: LCSD 880-638	2/3-A					CI	ient	Sam	ple ID: La	ab Contro	I Samp	le Dup
Matrix: Solid										Prep T	ype: To	otal/NA
Analysis Batch: 6361										Pre	p Batcl	h: 6382
-			Spike	LCSD	LCSD					%Rec.	-	RPD
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	823.7		mg/Kg			82	70 - 130	5	20
(GRO)-C6-C10												
Diesel Range Organics (Over			1000	775.5		mg/Kg			78	70 - 130	9	20
C10-C28)												
	LCSD LC	SD										
Surrogate	%Recovery Qu	alifier	Limits									
1-Chlorooctane	83		70 - 130									
o-Terphenyl	87		70 - 130									
Lab Sample ID: 880-4997-A-1-	EMS								Client S	Sample ID		
Matrix: Solid												otal/NA
Analysis Batch: 6361										Pre	p Batcl	h: 6382
	Sample Sa	mple	Spike	MS	MS					%Rec.		
Analyte	Result Qu	alifier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0 U		995	922.4		mg/Kg	_		91	70 - 130	_	
Diesel Range Organics (Over	<50.0 U		995	969.6		mg/Kg			97	70 - 130		
C10 C28)						5 5						

5

Job ID: 890-1088-1

SDG: TE012921045

C10-C28)

Project/Site: Elk Wallow 11 State #1

Lab Sample ID: 880-4997-A-1-E MS

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

Client: WSP USA Inc.

Matrix: Solid

#### Job ID: 890-1088-1 SDG: TE012921045

**Client Sample ID: Matrix Spike** 

5 7

											D		4-1/61.0
												Type: To	
											Pre	p Batch	: 6382
MS	мs												
ecovery	Quali	fier	Limits										
91			70 - 130										
95			70 - 130										
)							•	Clien	it Sa	mple ID	: Matrix S	oike Dup	olicate
											Prep 1	Гуре: To	tal/NA
											Pre	p Batch	: 6382
Sample	Samp	ole	Spike		MSD	MSD					%Rec.		RPD
Result	Quali	fier	Added		Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
<50.0	U		998		922.8		mg/Kg			91	70 - 130	0	20
<50.0	U		998		961.3		mg/Kg			96	70 - 130	1	20
MSD	MSD												
covery	Quali	fier	Limits										
90			70 - 130										
96			70 - 130										
											Prep	Type: S	oluble
	MB	МВ											
Re	sult	Qualifier		RL		Unit		D	Pr	epared	Analyz	ed	Dil Fac
<5	5.00	U		5.00		mg/K	g				08/11/21	16:59	1
								CI	ient	Sample			
											Prep	Type: S	oluble
			Spike		LCS	LCS			_	~ -	%Rec.		
					<b>_</b> ·								
			Added			Qualifier	Unit		D	%Rec	Limits		
			Added 250		<b>Result</b> 251.6	Qualifier	mg/Kg		<u> </u>	101	90 - 110		
						Qualifier	mg/Kg	iont (		101	90 - 110		
						Qualifier	mg/Kg	ent		101	90 - 110 Lab Contro		-
						Qualifier	mg/Kg	ent		101	90 - 110 Lab Contro	ol Sampl Type: S	-
			250		251.6		mg/Kg	ent \$		101	90 - 110 Lab Contro Prep		oluble
			250 Spike		251.6	LCSD	mg/Kg Cli	ent (	Sam	101 -	90 - 110 Lab Contro Prep %Rec.	Type: S	
			250 Spike Added		251.6 LCSD Result		mg/Kg Cli	ent s		101 ple ID: I	90 - 110 Lab Contro Prep %Rec. Limits	Type: S	oluble RPC Limi
			250 Spike		251.6	LCSD	mg/Kg Cli	ent (	Sam	101 -	90 - 110 Lab Contro Prep %Rec.	Type: S	
			250 Spike Added		251.6 LCSD Result	LCSD	mg/Kg Cli	ent (	Sam	101 ple ID: I	90 - 110 Lab Contro Prep %Rec. Limits	Type: S	oluble RPE Limi 20
	91 95 Sample Result <50.0 <50.0 (MSD 90 96 comate	91 95 Sample Samp Result Quali <50.0 U () () () () () () () () () () () () ()	91 95 Sample Sample Result Qualifier <50.0 U <50.0 U MSD MSD ecovery Qualifier 90	91         70 - 130           95         70 - 130           95         70 - 130           95         70 - 130           Result         Qualifier         Added           <50.0	91         70 - 130           95         70 - 130           95         70 - 130           Result         Qualifier         Added           <50.0	91         70 - 130           95         70 - 130           Sample         Sample         Spike         MSD           Result         Qualifier         Added         Result           <50.0	91         70.130           95         70.130           Sample         Sample         Spike         MSD         MSD           Result         Qualifier         Added         Result         Qualifier           <50.0	91         70.130           95         70.130           95         70.130           Result         Qualifier         Added         Result         Qualifier         Unit           <50.0	91       70 - 130         95       70 - 130         Sample       Sample       Spike       MSD       MSD         Result       Qualifier       Added       Result       Qualifier       Unit         <50.0	91       70 - 130         95       70 - 130         Client Sa         Sample       Sample       Spike       MSD       MSD         Result       Qualifier       Added       Result       Qualifier       Unit       D         <50.0	91       70.130         95       70.130         Sample       Sample       Spike       MSD       MSD         Result       Qualifier       Added       Result       Qualifier       Unit       D       %Rec         <50.0	97       70.130         95       70.130         Client Sample ID: Matrix Spere To Presting Sample Sample Spike MSD MSD MSD %Rec.         Result Qualifier Added Result Qualifier Unit D %Rec Limits          998       922.8       mg/Kg       91       70.130         <50.0	91       70.130         95       70.130         95       70.130         Client Sample ID: Matrix Spike Dup Prep Type: To Prep Batch         Sample Sample Spike MSD MSD %Rec.         Result Qualifier          Added          Result Qualifier       Unit       D       %Rec.           90       922.8       mg/Kg       D       %Rec.            90       96       70.130       0            Source of the sample ID: Method Prep Type: S         MSD       MSD        70.130       1         MSD MSD         scovery Qualifier       Limits       70.130         90       70.130       70.130       70.130       1         motomatography         Client Sample ID: Method Prep Type: S         MB       MB       Result       Qualifier       RL       mg/Kg       D       Prepared       Analyzed            State S

Pre	p Typ	e: Sc	luble

Analysis Batch: 6404											
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	719	F1	252	1027	F1	mg/Kg		122	90 - 110		

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Job ID: 890-1088-1 SDG: TE012921045

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

ab Oamala ID: 000 4000 4 14											014/00	
ab Sample ID: 890-1088-1 M Iatrix: Solid	SD								Client Sam Prep	nple ID: Type: So		
nalysis Batch: 6404	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
nalyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
nloride	719	F1	252	901.8	F1	mg/Kg		73	90 - 110	13	20	
												j

Eurofins Xenco, Carlsbad

#### **QC** Association Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

4 5 6

Job ID: 890-1088-1 SDG: TE012921045

#### GC VOA

#### Analysis Batch: 6278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
390-1088-1	SW08	Total/NA	Solid	8021B	631
390-1088-2	SW10	Total/NA	Solid	8021B	631
MB 880-6281/5-A	Method Blank	Total/NA	Solid	8021B	628
MB 880-6315/5-A	Method Blank	Total/NA	Solid	8021B	631
LCS 880-6315/1-A	Lab Control Sample	Total/NA	Solid	8021B	631
LCSD 880-6315/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	631
890-1077-A-16-B MS	Matrix Spike	Total/NA	Solid	8021B	631
890-1077-A-16-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	631
rep Batch: 6281					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batc
MB 880-6281/5-A	Method Blank	Total/NA	Solid	5035	
rep Batch: 6315					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-1088-1	SW08	Total/NA	Solid	5035	
890-1088-2	SW10	Total/NA	Solid	5035	
MB 880-6315/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6315/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6315/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1077-A-16-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1077-A-16-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### GC Semi VOA

#### Analysis Batch: 6361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1088-1	SW08	Total/NA	Solid	8015B NM	6382
890-1088-2	SW10	Total/NA	Solid	8015B NM	6382
MB 880-6382/1-A	Method Blank	Total/NA	Solid	8015B NM	6382
LCS 880-6382/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6382
LCSD 880-6382/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6382
880-4997-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	6382
880-4997-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6382

#### Prep Batch: 6382

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1088-1	SW08	Total/NA	Solid	8015NM Prep	
890-1088-2	SW10	Total/NA	Solid	8015NM Prep	
MB 880-6382/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6382/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6382/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-4997-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-4997-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### HPLC/IC

#### Leach Batch: 6394

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1088-1	SW08	Soluble	Solid	DI Leach	
890-1088-2	SW10	Soluble	Solid	DI Leach	
MB 880-6394/1-A	Method Blank	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Page 119 of 211

#### Job ID: 890-1088-1 SDG: TE012921045

#### HPLC/IC (Continued)

#### Leach Batch: 6394 (Continued)

ab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
.CS 880-6394/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
CSD 880-6394/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
390-1088-1 MS	SW08	Soluble	Solid	DI Leach	
90-1088-1 MSD	SW08	Soluble	Solid	DI Leach	
nalysis Batch: 6404					
ab Sample ID.	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
90-1088-1	SW08	Soluble	Solid	300.0	6394
890-1088-2	SW10	Soluble	Solid	300.0	6394
MB 880-6394/1-A	Method Blank	Soluble	Solid	300.0	6394
CS 880-6394/2-A	Lab Control Sample	Soluble	Solid	300.0	6394
CSD 880-6394/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6394
90-1088-1 MS	SW08	Soluble	Solid	300.0	6394
890-1088-1 MSD	SW08	Soluble	Solid	300.0	6394

Eurofins Xenco, Carlsbad

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Project/Site: Elk Wallow 11 State #1

Job ID: 890-1088-1 SDG: TE012921045

#### **Client Sample ID: SW08** Date Collected: 08/10/21 10:30

Client: WSP USA Inc.

Date Received: 08/10/21 13:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6315	08/11/21 11:25	MR	XEN MID
Total/NA	Analysis	8021B		1	6278	08/11/21 12:09	MR	XEN MID
Total/NA	Prep	8015NM Prep			6382	08/11/21 10:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6361	08/11/21 14:50	AJ	XEN MID
Soluble	Leach	DI Leach			6394	08/11/21 11:55	SC	XEN MID
Soluble	Analysis	300.0		1	6404	08/11/21 18:23	AJ	XEN MID

#### Client Sample ID: SW10 Date Collected: 08/10/21 10:36 Date Received: 08/10/21 13:08

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6315	08/11/21 11:25	MR	XEN MID
Total/NA	Analysis	8021B		1	6278	08/11/21 12:35	MR	XEN MID
Total/NA	Prep	8015NM Prep			6382	08/11/21 10:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6361	08/11/21 15:11	AJ	XEN MID
Soluble	Leach	DI Leach			6394	08/11/21 11:55	SC	XEN MID
Soluble	Analysis	300.0		1	6404	08/11/21 18:38	AJ	XEN MID

#### Laboratory References:

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

#### Lab Sample ID: 890-1088-1 Matrix: Solid

Lab Sample ID: 890-1088-2

Matrix: Solid

5 9

#### Accreditation/Certification Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

#### Laboratory: Eurofins Xenco, Midland

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

Authority		ogram	Identification Number	Expiration Date
kas	NE	ELAP	T104704400-20-21	06-30-22
The following analytes	are included in this report, bu	t the laboratory is not certif	fied by the governing authority. This list ma	ay include analytes for
the agency does not o Analysis Method	fer certification. Prep Method	Matrix	Analyte	
0,		Matrix Solid	Analyte Total TPH	

Eurofins Xenco, Carlsbad

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Job ID: 890-1088-1 SDG: TE012921045 4 5 6 7 8 9 10

#### **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Job ID: 890-1088-1 SDG: TE012921045

lethod	Method Description	Protocol	Laboratory
021B	Volatile Organic Compounds (GC)	SW846	XEN MID
015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
00.0	Anions, Ion Chromatography	MCAWW	XEN MID
035	Closed System Purge and Trap	SW846	XEN MID
015NM Prep	Microextraction	SW846	XEN MID
I Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

#### Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1088-1 SDG: TE012921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1088-1	SW08	Solid	08/10/21 10:30	08/10/21 13:08	0 - 10
890-1088-2	SW10	Solid	08/10/21 10:36	08/10/21 13:08	0 - 10

	Relinquished by (Signature) Receive	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. 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 Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed			s	SW08 S 8/10/2021	Sample Identification Matrix Sampled	C Yes No N/A	Seals: Yes No N/A			SAMPI F RECEIPT Temp Blank: Was No	Sampler's Name: Elliot Lee		Project Number: TE012921045	Project Name: Elk Wallow 11 State # 1	Phone: (432) 236-3849	City, State ZIP: Midland, Tx 79705	Address: 3300 North A Street	Company Name: WSP Permian office	Project Manager: Dan Moir	LABORATORIES	
	Received by: (Signature)	nstitutes a valid purchase order fro not assume any responsibility for a t and a charge of \$5 for each sample	8RCRA 13PPM Texas 11 A TCLP / SPLP 6010: 8RCRA			10:36	21 10:30 0-10'	Time Depth Sampled	Total Containers:	Correction Factor:		Thomas ID	Wet Ice.	Due Date:	Rush: J.Y.H.	Routine []	Turn Around	Email: Elliot.Lee@w	City, State ZIP:	Address:	Company Name:	Bill to: (if different)	Houston,TX (281) 240-4 Midland,TX (432-704-5 bbs,NM (575-392-7550) Phoenix	
	Slolu 1:08	m client company to Xenco, its af ny losses or expenses incurred b submitted to Xenco, but not anal	l Sb As Ba Be Sb As Ba Be				×	Numb TPH (E BTEX ( Chlorid	PA 80	)15) )=80;	21)	ers						Email: Elliot.Lee@wsp.com, Tacoma.Morrissey@wsp.com	P: Carlsbad, NM, 88220	3104 E Green Street	me: XTO Energy	ant) Kyle Littrell	Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806) 575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tar	Chain of Custody
4 0	Relinquished by: (Signature) 2	filiates and subcontractors. It assigns stand yy the client if such losses are due to circums lyzed. These terms will be enforced unless p	Cd Ca Cr Co I Cr Co Cu Pb							890-1088 Chain of Custory							ANALYSIS REQUEST				Prog		Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334 Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (460-355-0900) Atlanta.GA (770-449-8800) Tampa,FL (813-620-2000)	intodv
	Received by: (Signature)	ard terms and conditions tances beyond the control reviously negotiated.	Vi K Se Ag SiO2												Incide	Cost		Deliverables: EDD ADaPT		State of Project:	Program: UST/PST CRP Crownfields	Work Order Comments		Work Order No.
Revised Date 051419 Rev 2018 1	Date/Time		? Na Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg			Composite	Composite	Sample Comments	lab, if received by 4:30pm	TAT starts the day recevied by the					Incident # NAPP2110461994	Cost Center : 1598041001	Work Order Notes	Other:			TC Derfund	ents	ge1of1	

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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 service. 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.	nstitutes a valid purchase order from client co nd shall not assume any responsibility for any h project and a charge of \$5 for each sample s	nquishment of samples co ly for the cost of samples a 35.00 will be applied to eac	Notice: Signature of this document and reli of service. Eurofins Xenco will be llable on of Eurofins Xenco. A minimum charge of \$
TCLP/SPLP6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U	TCLP / SPLP 6010: 8RCRA S	be analyzed	Circle Method(s) and Metal(s) to be analyzed
Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo	8RCRA 13PPM Texas 11 AI Sb		Total 200.7 / 6010 200.8 / 6020:
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ike Tavarez		Jennings	Project Manager: Kalei
915) 585-3443, Lubbock, TX (806) 794-1296 75) 392-7550. Carlsbad, NM (575) 988-3199	EL Paso, TX (9 Hobbs. NM (57	Venco	
2) 704-5440, San Antonio, TX (210) 509-3334		Environment T	
281) 240-4200 Dallas TX (214) 902-0300			eurofins
ANALYSIS REQUEST ANALYSIS REQUEST 890-1087 Chain of Custody	281) 2404200, Dallas, TX (214) 19) 704-5440, San Antonio, TX (214) 19) 392-7550, Carlsbad, NM (575) BTEX (EPA 0= 8021) Chloride (EPA 300.0) Chloride (EPA 300.0)	Houston, TX (281) 240-4200, Da Midland, TX (432) 704-5440, San A EL Paso, TA A EL Paso, TX (432) 704-5440, San A EL	A contract Testing A contract Testing A contract A company A contract A company A contract A company A contract A contract A company A contract A contract A contract A contract A contract A contract A contract A contract A contract A contract A cont

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Chain of Custody

#### Received by OCD: 11/4/2021 2:30:53 PM

#### SW10 (890-1088-2) State Zip: TX, 79701 Note Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out 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 Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC. SW08 (890-1088-1) Empty Kit Relinquished by Deliverable Requested I, II III, IV Other (specify) Possible Hazard Identification Sample Identification - Client ID (Lab ID) Elk Wallow 11 State #1 Shipping/Receiving Carlsbad, NM 88220 Phone 575-988-3199 Fax 575-988-3199 elinquished by: mai Midland ŝ 1211 W Florida Ave, Client Information (Sub Contract Lab) elinquished by elinquished by 132-704-5440(Tel) Inconfirmed vuoress Custody Seals Intact: lient Contact: Junpany oject Name **Jrofins Xenco** ⊳ Yes A No R Custody Seal No Ž 12.01.2 Project #: 89000004 Due Date Requested 8/11/2021 Date/Time Date/Time Primary Deliverable Rank 2 Sampler Date/Time NO # PO # Phone SSOW# **FAT Requested (days)** Sample Date 8/10/21 8/10/21 Mountain 10 36 Date Mountair Sample 10 30 Time (C=comp G=grab) Sample Preservation Code Type Company Company Company (W=water S=solid, O=waste/oil, BT=Tissue, Solid Solid Matri A=Air) jessica kramer@eurofinset.com E-Mail: Kramer, Jessica Lab PM lime 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) Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Received by えののの Recei Cooler Temperature(s) °C and Other Remarks × × 8015MOD\_NM/8015NM\_S\_Prep Full TPH Return To Client Ved /ed by × × 300\_ORGFM\_28D/DI\_LEACH Chloride $\times$ × 8021B/5035FP\_Calc BTEX Analysis Requested Disposal By Lab New Mexico State of Origin Carrier Tracking No(s) Method of Shipment Date/Time ψ Archive For Total Number of containers Ŵ - X A HCL D C A ACH D C A ACH D Nthic Acid F MeOH F MeOH Ascorbic Acid seurofins Page. Page 1 of 1 COC No: 890-344 1 Preservation Codes Uther 390-1088-1 Ice DI Water CEDTA Special Instructions/Note: D Q Q M - Hexane N None N AsNaC2 P Na2O4S P Na2C4S R Na2SC3 R Na2SC3 R H2SC4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 Z other (specify) **Environment Testing** Company Company Company America Months ; Xenco

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**Eurofins Xenco, Carlsbad** 

## 1089 N Canal St

# Chain of Custody Record

13



Job Number: 890-1088-1 SDG Number: TE012921045

List Source: Eurofins Xenco, Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1088 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 True The cooler or samples do not appear to have been compromised or tampered with. 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 True Samples are received within Holding Time (excluding tests with immediate HTs) True Sample containers have legible labels. 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 True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs N/A

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

14

Job Number: 890-1088-1 SDG Number: TE012921045

List Source: Eurofins Xenco, Midland

List Creation: 08/11/21 11:17 AM

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1088 List Number: 2 Creator: Kramer, Jessica

<6mm (1/4").

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

Received by OCD: 11/4/2021 2:30:53 PM

### eurofins

#### Environment Testing America

#### **ANALYTICAL REPORT**

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

#### Laboratory Job ID: 890-1113-1

Laboratory Sample Delivery Group: TEO12921045 Client Project/Site: Elk Wallow 11 State #1 Revision: 1

#### For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/23/2021 4:18:21 PM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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

LINKS **Review your project** results through **Total** Access **Have a Question?** Ask-The Expert

www.eurofinsus.com/Env Released to Imaging: 2/8/2022 3:41:54 PM

Visit us at:

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Laboratory Job ID: 890-1113-1 SDG: TEO12921045

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QC Association Summary	13
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
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		Definitions/Glossary				
GC VOA       Qualifier Description         F1       MS and/or MSD recovery exceeds control limits.         F2       MS/MSD RPD exceeds control limits         U       Indicates the analyte was analyzed for but not detected.         GC Semi VOA       Qualifier Description         Yame       Qualifier Description         *-       LCS and/or LCSD is outside acceptance limits, low biased.         *1       LCS/LCSD RPD exceeds control limits.         U       Indicates the analyte was analyzed for but not detected.         MS       Qualifier Description         *-       LCS Indicates the analyte acceptance limits, low biased.         *1       LCS/LCSD RPD exceeds control limits.         U       Indicates the analyte was analyzed for but not detected.         HPLC/IC       Qualifier Description         Qualifier       Qualifier Description			Job ID: 890-1113-1 SDG: TEO12921045			
Qualifier     Qualifier Description       F1     MS and/or MSD recovery exceeds control limits.       F2     MS/MSD RPD exceeds control limits       U     Indicates the analyte was analyzed for but not detected.       GC Semi VOA       Qualifier     Qualifier Description       *-     LCS and/or LCSD is outside acceptance limits, low biased.       *1     LCS/LCSD RPD exceeds control limits.       U     Indicates the analyte was analyzed for but not detected.	Qualifier	;				
F2       MS/MSD RPD exceeds control limits         U       Indicates the analyte was analyzed for but not detected.         GC Semi VOA       Qualifier Description         *-       LCS and/or LCSD is outside acceptance limits, low biased.         *1       LCS/LCSD RPD exceeds control limits.         U       Indicates the analyte was analyzed for but not detected.         HPLC/IC       Qualifier Description         Qualifier       Qualifier Description		Qualifier Description				
U     Indicates the analyte was analyzed for but not detected.       GC Semi VOA       Qualifier     Qualifier Description       *-     LCS and/or LCSD is outside acceptance limits, low biased.       *1     LCS/LCSD RPD exceeds control limits.       U     Indicates the analyte was analyzed for but not detected.       HPLC/IC     Qualifier Description       Qualifier     Qualifier Description						
GC Semi VOA       Qualifier Description         *-       Qualifier Description         *-       LCS and/or LCSD is outside acceptance limits, low biased.         *1       LCS/LCSD RPD exceeds control limits.         U       Indicates the analyte was analyzed for but not detected.         HPLC/IC       Qualifier Description         Qualifier       Qualifier Description						
*-       LCS and/or LCSD is outside acceptance limits, low biased.         *1       LCS/LCSD RPD exceeds control limits.         U       Indicates the analyte was analyzed for but not detected.         HPLC/IC       Qualifier Description	GC Semi V					
*1     LCS/LCSD RPD exceeds control limits.       U     Indicates the analyte was analyzed for but not detected.       HPLC/IC     Qualifier Description	Qualifier	Qualifier Description				
U Indicates the analyte was analyzed for but not detected. HPLC/IC Qualifier Description	*-	LCS and/or LCSD is outside acceptance limits, low biased.				
HPLC/IC Qualifier Description	*1	LCS/LCSD RPD exceeds control limits.				
Qualifier Qualifier Description	U	Indicates the analyte was analyzed for but not detected.				
	HPLC/IC					
F1 MS and/or MSD recovery exceeds control limits.	Qualifier	Qualifier Description				
	F1	MS and/or MSD recovery exceeds control limits.				
U Indicates the analyte was analyzed for but not detected.	U	Indicates the analyte was analyzed for but not detected.				
<b>y</b>	y					

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

#### Job ID: 890-1113-1

#### Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-1113-1

#### **REVISION**

The report being provided is a revision of the original report sent on 8/17/2021. The report (revision 0) is being revised due to . **Receipt** 

The samples were received on 8/13/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.0°C

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-6620 and analytical batch 880-6654 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### GC Semi VOA

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

#### HPLC/IC

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

#### **Client Sample Results**

#### Client Sample ID: SW11 Date Collected: 08/13/21 11:16 Date Received: 08/13/21 15:15 Sample Depth: 0 - 10

Method: 8021B - Volatile Or	ganic Compo	unds (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
Toluene	<0.00200	U F1	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
Ethylbenzene	<0.00200	U F2 F1	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
m-Xylene & p-Xylene	< 0.00399	U F1	0.00399	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
o-Xylene	<0.00200	U F1	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
Xylenes, Total	< 0.00399	U F1	0.00399	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
Total BTEX	<0.00399	U F2 F1	0.00399	mg/Kg		08/16/21 15:45	08/17/21 13:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/16/21 15:45	08/17/21 13:50	1
1,4-Difluorobenzene (Surr)	99		70 - 130			08/16/21 15:45	08/17/21 13:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<49.8	U *- *1	49.8	mg/Kg		08/17/21 11:00	08/17/21 13:58	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.8	U *- *1	49.8	mg/Kg		08/17/21 11:00	08/17/21 13:58	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/17/21 11:00	08/17/21 13:58	1	
Total TPH	<49.8	U	49.8	mg/Kg		08/17/21 11:00	08/17/21 13:58	1	
_									
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	99		70 - 130			08/17/21 11:00	08/17/21 13:58	1	
o-Terphenyl	108		70 - 130			08/17/21 11:00	08/17/21 13:58	1	

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

Analyte	Result Qualifie	er RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	763	4.95	mg/Kg			08/19/21 10:52	1

#### Client Sample ID: SW12 Date Collected: 08/13/21 12:45 Date Received: 08/13/21 15:15 Sample Depth: 0 - 10

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

Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
Toluene	<0.00200	U	0.00200	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
Total BTEX	<0.00401	U	0.00401	mg/Kg	08/16/21 15:4	5 08/17/21 14:10	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130		08/16/21 15:4	5 08/17/21 14:10	1
1,4-Difluorobenzene (Surr)	100		70 - 130		08/16/21 15:4	5 08/17/21 14:10	1

Lab Sample ID: 890-1113-2

Matrix: Solid

Job ID: 890-1113-1 SDG: TEO12921045

#### Lab Sample ID: 890-1113-1

Matrix: Solid

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Project/Site: Elk Wallow 11 State #1

Job ID: 890-1113-1 SDG: TEO12921045

#### **Client Sample ID: SW12** Date Collected: 08/13/21 12:45

Client: WSP USA Inc.

Date Received: 08/13/21 15:15 Sample Depth: 0 - 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *- *1	50.0	mg/Kg		08/17/21 11:00	08/17/21 14:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U *- *1	50.0	mg/Kg		08/17/21 11:00	08/17/21 14:18	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/17/21 11:00	08/17/21 14:18	1
Total TPH	<50.0	U	50.0	mg/Kg		08/17/21 11:00	08/17/21 14:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			08/17/21 11:00	08/17/21 14:18	1
o-Terphenyl	99		70 - 130			08/17/21 11:00	08/17/21 14:18	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
	Beault	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer		onit		Fiepareu	Analyzeu	Dirrac

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Lab Sample ID: 890-1113-2 Matrix: Solid 5

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#### **Surrogate Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

	t Surrogate Recovery (Acceptance Limits)			
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1113-1	SW11	114	99	
890-1113-1 MS	SW11	92	111	
890-1113-1 MSD	SW11	99	108	
890-1113-2	SW12	117	100	
LCS 880-6620/1-A	Lab Control Sample	105	104	
LCSD 880-6620/2-A	Lab Control Sample Dup	112	104	
MB 880-6620/5-A	Method Blank	105	90	

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

			Perce	nt Surrogate Recovery (Acceptance Limits)
.ab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)	
90-1111-A-21-F MS	Matrix Spike	92	87	
0-1111-A-21-G MSD	Matrix Spike Duplicate	94	90	
0-1113-1	SW11	99	108	
-1113-2	SW12	92	99	
S 880-6627/2-A	Lab Control Sample	82	97	
CSD 880-6627/3-A	Lab Control Sample Dup	108	106	
IB 880-6627/1-A	Method Blank	114	126	

#### Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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#### Job ID: 890-1113-1 SDG: TEO12921045

Prep Type: Total/NA

Prep Type: Total/NA

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Lab Sample ID: MB 880-6620/5-A

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

Matrix: Solid Analysis Batch: 6654						· · · ·	Prep Type: To Prep Batch	
-	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/16/21 15:45	08/17/21 13:28	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			08/16/21 15:45	08/17/21 13:28	1
1,4-Difluorobenzene (Surr)	90		70 - 130			08/16/21 15:45	08/17/21 13:28	1

#### Lab Sample ID: LCS 880-6620/1-A **Matrix: Solid** Analysis Batch: 6654

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08579		mg/Kg		86	70 - 130	
Toluene	0.100	0.08111		mg/Kg		81	70 - 130	
Ethylbenzene	0.100	0.08072		mg/Kg		81	70 - 130	
m-Xylene & p-Xylene	0.200	0.1621		mg/Kg		81	70 - 130	
o-Xylene	0.100	0.08067		mg/Kg		81	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

#### Lab Sample ID: LCSD 880-6620/2-A Matrix: Solid Analysis Batch: 6654

Analysis Batch: 6654							Prep	Batch:	6620
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08823		mg/Kg		88	70 - 130	3	35
Toluene	0.100	0.08360		mg/Kg		84	70 - 130	3	35
Ethylbenzene	0.100	0.08701		mg/Kg		87	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1768		mg/Kg		88	70 - 130	9	35
o-Xylene	0.100	0.08862		mg/Kg		89	70 - 130	9	35
LCSD L	CSD								

Surrogate	%Recovery Quali	fier Limits
4-Bromofluorobenzene (Surr)	112	70 - 130
1,4-Difluorobenzene (Surr)	104	70 - 130

#### Lab Sample ID: 890-1113-1 MS Matrix: Solid

Analysis Batch: 6654									Prep Bate	ch: 6620
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U F1	0.101	0.07272		mg/Kg		72	70 - 130	

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**Client Sample ID: SW11** 

Prep Type: Total/NA

#### Job ID: 890-1113-1 SDG: TEO12921045

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

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Prep Batch: 6620

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Lab Sample ID: 890-1113- Matrix: Solid Analysis Batch: 6654	1 <b>MS</b>							CI	ient Samp Prep Ty Prep		al/NA
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Toluene	<0.00200	U F1	0.101	0.05143	F1	mg/Kg		51	70 - 130		
Ethylbenzene	<0.00200	U F2 F1	0.101	0.03735	F1	mg/Kg		37	70 - 130		
m-Xylene & p-Xylene	<0.00399	UF1	0.202	0.07162	F1	mg/Kg		35	70 - 130		
o-Xylene	<0.00200	U F1	0.101	0.03662	F1	mg/Kg		36	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	92		70 - 130								
1,4-Difluorobenzene (Surr)	111		70 - 130								
Lab Sample ID: 890-1113-	1 MSD							CI	ient Samp	ole ID: S	SW11
Matrix: Solid									Prep Ty		
Analysis Batch: 6654										Batch:	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U F1	0.101	0.05267	F1	mg/Kg		52	70 - 130	32	35
Toluene	<0.00200	U F1	0.101	0.03841	F1	mg/Kg		38	70 - 130	29	35
Ethylbenzene	<0.00200	U F2 F1	0.101	0.02585	F2 F1	mg/Kg		26	70 - 130	36	35

0.202

0.05034 F1

0.02731 F1

mg/Kg

mg/Kg

o-Xylene	<0.00200	U F1	0.101
	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

<0.00399 UF1

#### Lab Sample ID: MB 880-6627/1-A Matrix: Solid **Analysis Batch: 6628**

m-Xylene & p-Xylene

							p =ato	
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/16/21 17:01	08/17/21 11:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/16/21 17:01	08/17/21 11:33	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/16/21 17:01	08/17/21 11:33	1
Total TPH	<50.0	U	50.0	mg/Kg		08/16/21 17:01	08/17/21 11:33	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

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1-Chlorooctane	114		70 - 130	08/16/21 17:01	08/17/21 11:33	1
o-Terphenyl	126		70 - 130	08/16/21 17:01	08/17/21 11:33	1
_						

#### Lab Sample ID: LCS 880-6627/2-A **Matrix: Solid**

#### Analysis Batch: 6628 Prep Batch: 6627 Spike LCS LCS %Rec. Added Analyte **Result Qualifier** Unit D %Rec Limits 1000 654.9 \*-70 - 130 Gasoline Range Organics mg/Kg 65

Job ID: 890-1113-1 SDG: TEO12921045

70 - 130

70 - 130

35

29

35

35

25

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**Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 6627

**Client Sample ID: Lab Control Sample** 

#### Prep Type: Total/NA

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Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Matrix: Solid Analysis Batch: 6628	-6627/2-A					Clien	it Sai	nple ID	: Lab Cor Prep Ty Prep		al/NA
			Spike	-	LCS		_	~ -	%Rec.	Buton.	001
Analyte			Added		Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	588.3	*-	mg/Kg		59	70 - 130		
		LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	82		70 - 130								
o-Terphenyl	97		70 - 130								
Lab Sample ID: LCSD 88	0-6627/3-A				C	lient Sar	nple	ID: Lab			
Matrix: Solid									Prep Ty	-	
Analysis Batch: 6628										Batch:	
			Spike		LCSD				%Rec.		RPD
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1294		mg/Kg		129	70 - 130	66	20
Diesel Range Organics (Over C10-C28)			1000	915.5	*1	mg/Kg		92	70 - 130	44	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	108		70 - 130								
o-Terphenyl	106		70 - 130								
Lab Sample ID: 890-1111 Matrix: Solid Analysis Batch: 6628	-A-21-F MS						CI	ient Sa	mple ID: I Prep Ty Prep		al/NA
-	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *- *1	995	970.5		mg/Kg		98	70 - 130		
(01(0)-00-010											
Diesel Range Organics (Over	182	*- *1	995	988.8		mg/Kg		81	70 - 130		
Diesel Range Organics (Over		*- *1 <b>MS</b>	995	988.8		mg/Kg		81	70 - 130		
Diesel Range Organics (Over		MS	995 Limits	988.8		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)	MS	MS		988.8		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28) Surrogate	MS %Recovery	MS	Limits	988.8		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	<b>MS</b> <u>%Recovery</u> 92 87	MS Qualifier	Limits 70 - 130	988.8			amp		latrix Spil		
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-1111	<b>MS</b> <u>%Recovery</u> 92 87	MS Qualifier	Limits 70 - 130	988.8			amp		latrix Spil Prep Ty		al/NA
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-1111 Matrix: Solid	MS <u>%Recovery</u> 92 87 -A-21-G MSD	MS Qualifier	Limits 70 - 130		MSD		amp		latrix Spil Prep Ty	pe: Tot	al/NA
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-1111 Matrix: Solid	MS <u>%Recovery</u> 92 87 -A-21-G MSD Sample	MS Qualifier	Limits 70 - 130 70 - 130	MSD	MSD Qualifier		Samp	le ID: N	latrix Spil Prep Ty Prep	pe: Tot	al/NA 6627
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-1111 Matrix: Solid Analysis Batch: 6628	MS <u>%Recovery</u> 92 87 -A-21-G MSD Sample Result	MS Qualifier Sample	Limits 70 - 130 70 - 130 Spike	MSD		Client S		le ID: N	latrix Spil Prep Ty Prep %Rec.	pe: Tot Batch:	al/NA 6627 RPD
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-1111 Matrix: Solid Analysis Batch: 6628 Analyte Gasoline Range Organics	MS <u>%Recovery</u> 92 87 -A-21-G MSD Sample <u>Result</u> <50.0	MS Qualifier Sample Qualifier	Limits 70 - 130 70 - 130 Spike Added	MSD Result		Client S		le ID: N %Rec	latrix Spil Prep Ty Prep %Rec. Limits	pe: Tot Batch:	al/NA 6627 RPD Limit
Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: 890-1111 Matrix: Solid Analysis Batch: 6628 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	MS %Recovery 92 87 -A-21-G MSD Sample Result <50.0 182	MS Qualifier Sample Qualifier U *- *1	Limits 70 - 130 70 - 130 <b>Spike</b> Added 998	MSD Result 995.1		Client S		le ID: N <u>%Rec</u> 100	latrix Spil Prep Ty Prep %Rec. Limits 70 - 130	pe: Tot Batch: RPD 3	al/NA 6627 RPD Limit 20

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Job ID: 890-1113-1

SDG: TEO12921045

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

	<b>,</b>		5-5-1	-									
Lab Sample ID: MB 880-6	679/1-A								Clie	nt Sam	ple ID: Me	thod	Blank
Matrix: Solid											Prep Ty	pe: S	oluble
Analysis Batch: 6680													
		MB											
Analyte			Qualifier				Unit	D	P	repared	Analyze		Dil Fac
Chloride	<	5.00	U		5.00		mg/K	g			08/17/21 1	5:18	1
Lab Sample ID: LCS 880-	6679/2-A							Clien	t Sar	nple ID	: Lab Cont	rol S	ample
Matrix: Solid											Prep Ty		
Analysis Batch: 6680													
				Spike	I	LCS	LCS				%Rec.		
Analyte				Added	Re	sult	Qualifier	Unit	D	%Rec	Limits		
Chloride				250	2	53.9		mg/Kg		102	90 - 110		
	0.0070/0.4						_				Control C		Due
Lab Sample ID: LCSD 880	J-66/9/3-A						U U	lient San	npie	ID: Lab	Control S		
Matrix: Solid											Prep Ty	pe: S	oluble
Analysis Batch: 6680				Spike	10	-en	LCSD				%Rec.		RPD
Analyte				Added		-	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	·			250		55.0		mg/Kg		102	90 - 110		
				200	2	00.0		mg/ng		102	00-110	0	20
Lab Sample ID: 890-1113-	2 MS									Cli	ent Sampl	e ID:	SW12
Matrix: Solid											Prep Ty		
Analysis Batch: 6680													
-	Sample	Sam	ple	Spike		MS	MS				%Rec.		
Analyte	Result		ifier	Added			Qualifier	Unit	D	%Rec	Limits		
Chloride	729	F1		250	93	35.7	F1	mg/Kg		83	90 - 110		
										01		. 10.	01440
Lab Sample ID: 890-1113-										CII	ent Sampl		
Matrix: Solid											Prep Ty	pe: S	oluble
Analysis Batch: 6680	Sample	Sam	nlo	Spike	Δ	חפו	MSD				%Rec.		RPD
Analyte	Result			Added		-	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	729			250		35.5		mg/Kg		83	90 - 110		20
	. 20	• •		200		00.0					00-110	Ũ	20
Lab Sample ID: MB 880-6	605/1-A								Clie	nt Sam	ple ID: Me	thod	Blank
Matrix: Solid											Prep Ty	pe: S	oluble
Analysis Batch: 6765													
		MB											
Analyte			Qualifier		RL		Unit	D	P	repared	Analyze		Dil Fac
Chloride	<	5.00	U		5.00		mg/Kg	g			08/19/21 0	8:32	1
Lab Comple ID: LCC 880								Clien	4 C				omolo
Lab Sample ID: LCS 880-	00UJ/Z-A							Clien	t Sar		: Lab Cont Prep Ty		
											FIED IV		oiubie
Matrix: Solid												pc. 0	
Analysis Batch: 6765				Snike		201	1.05					pc. 0	
Analysis Batch: 6765				Spike Added		-	LCS Qualifier	Unit	п	%Rec	%Rec.	pc. 0	
Analysis Batch: 6765 Analyte				Added	Re	sult	LCS Qualifier	Unit ma/Ka	D	%Rec	%Rec. Limits		
Analysis Batch: 6765					Re	-		Unit mg/Kg	_ <u>D</u>	<b>%Rec</b> 103	%Rec.		
Analysis Batch: 6765 Analyte				Added	Re	sult	Qualifier	mg/Kg		103	%Rec. Limits		
Analysis Batch: 6765 Analyte Chloride				Added	Re	sult	Qualifier	mg/Kg		103	%Rec. Limits 90 - 110	ampl	e Dup
Analysis Batch: 6765 Analyte Chloride Lab Sample ID: LCSD 880				Added	Re	sult	Qualifier	mg/Kg		103	%Rec. Limits 90 - 110	ampl	e Dup
Analysis Batch: 6765 Analyte Chloride Lab Sample ID: LCSD 886 Matrix: Solid				Added	2	<b>sult</b> 57.5	Qualifier	mg/Kg		103	%Rec. Limits 90 - 110	ampl	e Dup
Analysis Batch: 6765 Analyte Chloride Lab Sample ID: LCSD 886 Matrix: Solid				Added 250	Re  L0 Re	Sult 57.5	Qualifier C	mg/Kg		103	%Rec. Limits 90 - 110 Control S Prep Ty	ampl	e Dup oluble

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

Lab Sample ID: 890-1112-A Matrix: Solid Analysis Batch: 6765	-3-C MS						С	lient Sa	mple ID: I Prep Ty		-
Analyte	•	Sample Qualifier	Spike Added		MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	36.6		249	308.1		mg/Kg		109	90 - 110		
Lab Sample ID: 890-1112-A Matrix: Solid Analysis Batch: 6765	-3-D MSD					Client S	Samp	ole ID: N	latrix Spil Prep Ty		
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	36.6		249	308.5		mg/Kg		109	90 - 110	0	20

#### **QC Association Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

#### GC VOA

#### Prep Batch: 6620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1113-1	SW11	Total/NA	Solid	5035	
890-1113-2	SW12	Total/NA	Solid	5035	
MB 880-6620/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6620/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6620/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1113-1 MS	SW11	Total/NA	Solid	5035	
890-1113-1 MSD	SW11	Total/NA	Solid	5035	

#### Analysis Batch: 6654

Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
SW11	Total/NA	Solid	8021B	6620
SW12	Total/NA	Solid	8021B	6620
Method Blank	Total/NA	Solid	8021B	6620
Lab Control Sample	Total/NA	Solid	8021B	6620
Lab Control Sample Dup	Total/NA	Solid	8021B	6620
SW11	Total/NA	Solid	8021B	6620
SW11	Total/NA	Solid	8021B	6620
	SW11 SW12 Method Blank Lab Control Sample Lab Control Sample Dup SW11	SW11     Total/NA       SW12     Total/NA       Method Blank     Total/NA       Lab Control Sample     Total/NA       Lab Control Sample Dup     Total/NA       SW11     Total/NA	SW11     Total/NA     Solid       SW12     Total/NA     Solid       Method Blank     Total/NA     Solid       Lab Control Sample     Total/NA     Solid       Lab Control Sample Dup     Total/NA     Solid       SW11     Total/NA     Solid	SW11Total/NASolid8021BSW12Total/NASolid8021BMethod BlankTotal/NASolid8021BLab Control SampleTotal/NASolid8021BLab Control Sample DupTotal/NASolid8021BSW11Total/NASolid8021B

#### GC Semi VOA

#### Prep Batch: 6627

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1113-1	SW11	Total/NA	Solid	8015NM Prep	
890-1113-2	SW12	Total/NA	Solid	8015NM Prep	
MB 880-6627/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6627/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1111-A-21-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1111-A-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 6628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1113-1	SW11	Total/NA	Solid	8015B NM	6627
890-1113-2	SW12	Total/NA	Solid	8015B NM	6627
MB 880-6627/1-A	Method Blank	Total/NA	Solid	8015B NM	6627
LCS 880-6627/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6627
LCSD 880-6627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6627
890-1111-A-21-F MS	Matrix Spike	Total/NA	Solid	8015B NM	6627
890-1111-A-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6627

#### HPLC/IC

#### Leach Batch: 6605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1113-1	SW11	Soluble	Solid	DI Leach	
890-1113-2	SW12	Soluble	Solid	DI Leach	
MB 880-6605/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6605/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6605/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1112-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1112-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

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Job ID: 890-1113-1 SDG: TEO12921045

#### **QC Association Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

#### HPLC/IC

#### Leach Batch: 6679

each Batch: 6679					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-6679/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6679/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6679/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1113-2 MS	SW12	Soluble	Solid	DI Leach	
890-1113-2 MSD	SW12	Soluble	Solid	DI Leach	
Analysis Batch: 668	0				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-6679/1-A	Method Blank	Soluble	Solid	300.0	6679
LCS 880-6679/2-A	Lab Control Sample	Soluble	Solid	300.0	6679
LCSD 880-6679/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6679
890-1113-2 MS	SW12	Soluble	Solid	300.0	6679
890-1113-2 MSD	SW12	Soluble	Solid	300.0	6679

#### Analysis Batch: 6765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1113-1	SW11	Soluble	Solid	300.0	6605
890-1113-2	SW12	Soluble	Solid	300.0	6605
MB 880-6605/1-A	Method Blank	Soluble	Solid	300.0	6605
LCS 880-6605/2-A	Lab Control Sample	Soluble	Solid	300.0	6605
LCSD 880-6605/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6605
890-1112-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	6605
890-1112-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6605

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Job ID: 890-1113-1 SDG: TEO12921045 Client: WSP USA Inc.

Job ID: 890-1113-1 SDG: TEO12921045

Matrix: Solid

Matrix: Solid

5 6

9

Lab Sample ID: 890-1113-1

#### Client Sample ID: SW11 Date Collected: 08/13/21 11:16 Date Received: 08/13/21 15:15

Project/Site: Elk Wallow 11 State #1

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6620	08/16/21 15:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6654	08/17/21 13:50	KL	XEN MID
Total/NA	Prep	8015NM Prep			6627	08/17/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6628	08/17/21 13:58	AJ	XEN MID
Soluble	Leach	DI Leach			6605	08/16/21 11:22	СН	XEN MID
Soluble	Analysis	300.0		1	6765	08/19/21 10:52	СН	XEN MID

#### Client Sample ID: SW12 Date Collected: 08/13/21 12:45 Date Received: 08/13/21 15:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6620	08/16/21 15:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6654	08/17/21 14:10	KL	XEN MID
Total/NA	Prep	8015NM Prep			6627	08/17/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6628	08/17/21 14:18	AJ	XEN MID
Soluble	Leach	DI Leach			6605	08/16/21 11:22	СН	XEN MID
Soluble	Analysis	300.0		1	6765	08/19/21 10:57	СН	XEN MID

#### Laboratory References:

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

Eurofins Xenco, Carlsbad

Released to Imaging: 2/8/2022 3:41:54 PM

**Accreditation/Certification Summary** 

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1113-1

#### Laboratory: Eurofins Xenco, Midland

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

Authority	Pro	ogram	Identification Number	Expiration Date
exas	NE	LAP	T104704400-20-21	06-30-22
The following analyte	s are included in this repo	rt but the laboratory is r	not certified by the governing authority.	This list may include analytes for whic
the agency does not o	•	, <i>2</i>		
• •	•	Matrix	Analyte	
the agency does not o	offer certification.		, , , , ,	

Page 144 of 211 SDG: TEO12921045 5 6 7 8

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Eurofins Xenco, Carlsbad
Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1113-1 SDG: TEO12921045

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

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Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1113-1 SDG: TEO12921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1113-1	SW11	Solid	08/13/21 11:16	08/13/21 15:15	0 - 10
890-1113-2	SW12	Solid	08/13/21 12:45	08/13/21 15:15	0 - 10

Revised Date 051418 Rev 2018			6						σ
			4			-			3 4 4 1
			8-13-21 1505	09.13		And	Live (		MARIAN IN
e) Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Þ	ıre)	Received by: (Signature)	) Receive	gnatyfre)	Re(mpuishep)by: (Signature)
	iously negotiated.	d. These terms will be enforced unless previously negotiated.	o Xenco, but not analyze	submitted t	for each sample	and a charge of \$	o each project	f S75,00 yill be applied t	of Xenco. A minimum charge of \$75,00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be
	<ol> <li>It assigns standard terms and conditions are due to circumstances beyond the control</li> </ol>		pany to Xenco, its affilia expenses incurred by the	n client con ly losses of	rchase order fron sponsibility for ar	nstitutes a valid p not assume any ru	of samples cor ples and shall r	nature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractor 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	Notice: Signature of this docu of service. Xenco will be liable
/245.1/7470 /		Cu Pb	As Ba Be Cd	- 11		TCLP / SP		nd Metal(s) to be a	Circle Method(s) and Metal(s) to be analyzed
t Sr TI Sn U V Zn	Cu Fe Pb Ma Mn Mo Ni K Se Ag SiO2 Na	Cd Ca Cr Co Cu Fe Pb Mg M	As Ba Be B	1 Al Sh	13PPM Texas 11	ABCRA 13P		200 8 / 6020-	Total 200 7 / 6010
				_				_	
				_					
Composite			×		0-10	1 12:45	8/13/2021	S	SW12
Composito			: >	┢			8/13/2021	U	SWIT
Composite			< 1	-+	2			,	0.00
Sample Comments			TPH (E BTEX ( Chloric	Numb	Depth	Time Sampled	C Date Sampled	ation Matrix	Sample Identification
lab, if received by 4:30pm			ÉPA			Total Containers:	То	Yes NO N/A	Sample Custody Seals:
TAT starts the day recevied by the	_	4	0=80			Correction Factor:	Cor	Yes No N/A	Cooler Custody Seals:
	n of Custody	890-1113 Chain of Custody	_	ntai	87	NW	- (	Yes No	Received Intact:
			)	nera	₀(	Thermometer ID		7.2/7.6	Temperature (°C):
				5	(Yes) No	Wet Ice:	C Xes No	Temp Blank:	SAMPLE RECEIPT
					Date:	Due Date:	.ee	Elliot Lee	Sampler's Name:
<pre> cident # NAPP2110461994 </pre>			_		Rush: 24 H	Rust			P.O. Number:
Cost Center : 1598041001	0				ne 🛛	Routine	1045	TE012921045	Project Number:
Work Order Notes		ANALYSIS REQUEST			Turn Around	T	State # 1	Elk Wallow 11 State # 1	Project Name:
Other:	Deliverables: EDD ADaPT		Tacoma.Morrissey@wsp.com		Elliot.Lee@wsp.com,	Email:		(432) 236-3849	
	evel III	Reporti	Carlsbad, NM, 88220		City, State ZIP:			Midland, Tx 79705	e ZIP:
}		Stat	3104 E Green Street	31	Address:			3300 North A Street	
Ids TRC Derfund	Program: UST/PST _RP _rownfields	Progra	XTO Energy		Company Name:			WSP Permian office	
mments	Work Order Comments		Kyle Littrell	iii Ky	Bill to: (if different)			Dan Moir	Project Manager: Da
<sup>2</sup> age1 of1	) www.xenco.com	Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)	aso,TX (915)585-3443 55-0900) Atlanta,GA (7	140) EL P; AZ (480-35	d,TX (432-704-54 -7550) Phoenix,	Midlan bs,NM (575-392	Нов	BORATORIES	LABO
		Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334	,TX (214) 902-0300 Sa	00 Dallas	.TX (281) 240-42	Houstor			
	Work Order No:	todv	Chain of Custody	2					

#### Received by OCD: 11/4/2021 2:30:53 PM

4 5 6

Job Number: 890-1113-1 SDG Number: TEO12921045

List Source: Eurofins Xenco, Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

#### Login Number: 1113 List Number: 1 Creator: Olivas, Nathaniel

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

#### Login Number: 1113 List Number: 2 Creator: Kramer, Jessica

Job Number: 890-1113-1
SDG Number: TEO12921045

SDG Number: TEO12921045
List Source: Eurofins Xenco, Midland

List Creation: 08/16/21 03:52 PM

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

Received by OCD: 11/4/2021 2:30:53 PM

# eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

#### Laboratory Job ID: 890-1149-1

Laboratory Sample Delivery Group: WSPTE012921045 Client Project/Site: Elk Wallow 11 State #1

#### For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/26/2021 4:18:22 PM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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

LINKS **Review your project** results through **Total** Access Have a Question? Ask-The Expert Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/8/2022 3:41:54 PM

Laboratory Job ID: 890-1149-1 SDG: WSPTE012921045

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3

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#### **Definitions/Glossary**

Client: WSP USA Inc.
Project/Site: Elk Wallow 11 State #1

Job ID: 890-1149-1 SDG: WSPTE012921045

Qualifiers	
GC VOA	
Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.
GC Semi VOA	
Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
HPLC/IC	
Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.

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	10
%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	10
DL	Detection Limit (DoD/DOE)	13
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	

Project/Site: Elk Wallow 11 State #1

4

5

Job ID: 890-1149-1 SDG: WSPTE012921045

#### Job ID: 890-1149-1

Client: WSP USA Inc.

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1149-1

#### Receipt

The sample was received on 8/25/2021 8:04 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

#### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-5423-A-1-E MSD). Evidence of matrix interferences is not obvious.

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

#### GC Semi VOA

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

#### HPLC/IC

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

#### **Client Sample Results**

RL

Unit

D

Prepared

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

#### Client Sample ID: SW13

Date Collected: 08/23/21 11:00 Date Received: 08/25/21 08:04

Sample Depth: 0 - 10

Analyte

Job ID: 890-1149-1
SDG: WSPTE012921045

#### Lab Sample ID: 890-1149-1

Analyzed

Matrix: Solid

Dil Fac

						· · · · · · · · · · · · · · · · · · ·	
Benzene	<0.00200	U	0.00200	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
Toluene	<0.00200	U	0.00200	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
Total BTEX	<0.00399	U	0.00399	mg/Kg	08/25/21 11:45	08/25/21 22:37	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130		08/25/21 11:45	08/25/21 22:37	1
1,4-Difluorobenzene (Surr)	109		70 - 130		08/25/21 11:45	08/25/21 22:37	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg	08/25/21 14:14	08/26/21 03:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	08/25/21 14:14	08/26/21 03:47	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	08/25/21 14:14	08/26/21 03:47	1
Total TPH	<49.9	U	49.9	mg/Kg	08/25/21 14:14	08/26/21 03:47	1
Surrogate	%Recovery	Qualifier	Limits		Prenared	Analyzed	Dil Fac

	Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
	1-Chlorooctane	91		70 - 130			08/25/21 14:14	08/26/21 03:47	1
	o-Terphenyl	92		70 - 130			08/25/21 14:14	08/26/21 03:47	1
ſ	Method: 300.0 - Anions, Ion Chrom	atography -	Soluble						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	20.7		4.95	mg/Kg			08/26/21 03:23	1

Project/Site: Elk Wallow 11 State #1

#### Job ID: 890-1149-1 SDG: WSPTE012921045

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

#### Matrix: Solid

Client: WSP USA Inc.

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
880-5423-A-1-D MS	Matrix Spike	110	105		
880-5423-A-1-E MSD	Matrix Spike Duplicate	102	42 S1-		6
890-1149-1	SW13	112	109		
LCS 880-7058/1-A	Lab Control Sample	98	98		
LCSD 880-7058/2-A	Lab Control Sample Dup	99	95		
MB 880-7058/5-A	Method Blank	122	108		8
Surrogate Legend					
BFB = 4-Bromofluorobe	nzene (Surr)				l S

DFBZ = 1,4-Difluorobenzene (Surr)

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

#### Matrix: Solid Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) 1CO1 OTPH1 (70-130) Lab Sample ID **Client Sample ID** (70-130) 890-1147-A-1-C MS Matrix Spike 86 75 890-1147-A-1-D MSD Matrix Spike Duplicate 90 75 890-1149-1 SW13 91 92 LCS 880-7068/2-A Lab Control Sample 96 88 LCSD 880-7068/3-A Lab Control Sample Dup 93 85 MB 880-7068/1-A 99 Method Blank 103

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Lab Sample ID: MB 880-7058/5-A	
--------------------------------	--

Matrix: Solid Analysis Batch: 7060

Analysis Batch: 7060							Prep Bato	:h: 7058
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/25/21 11:45	08/25/21 14:52	1
	МВ	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			08/25/21 11:45	08/25/21 14:52	1
1,4-Difluorobenzene (Surr)	108		70 - 130			08/25/21 11:45	08/25/21 14:52	1

#### Lab Sample ID: LCS 880-7058/1-A Matrix: Solid

#### Analysis Batch: 7060

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1071		mg/Kg		107	70 - 130	
Toluene	0.100	0.1054		mg/Kg		105	70 - 130	
Ethylbenzene	0.100	0.1051		mg/Kg		105	70 - 130	
m-Xylene & p-Xylene	0.200	0.1928		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09927		mg/Kg		99	70 - 130	

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

#### Lab Sample ID: LCSD 880-7058/2-A Matrix: Solid

Analysis Batch: 7060							Prep Batch: 7058			
	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1125		mg/Kg		113	70 - 130	5	35	
Toluene	0.100	0.1129		mg/Kg		113	70 - 130	7	35	
Ethylbenzene	0.100	0.1113		mg/Kg		111	70 - 130	6	35	
m-Xylene & p-Xylene	0.200	0.2022		mg/Kg		101	70 - 130	5	35	
o-Xylene	0.100	0.1014		mg/Kg		101	70 - 130	2	35	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-5423-A-1-D M Matrix: Solid Analysis Batch: 7060	S							Client	· Prep	): Matrix Spike Type: Total/NA ep Batch: 7058
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.09135		mg/Kg		92	70 - 130	

Prep Type: Total/NA

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SDG: WSPTE012921045

**Client Sample ID: Method Blank** 

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 7058

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Lab Sample ID: 880-5423-A-1-I	DMS									Client S	Sample ID: M		
Matrix: Solid											Prep Typ	e: To	tal/NA
Analysis Batch: 7060											Prep E	Batch	: 7058
	Sample	Sam	ple	Spike	MS	MS					%Rec.		
Analyte	Result	Qual	lifier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Toluene	<0.00200	U		0.0998	0.08347		mg/Kg			84	70 - 130		
Ethylbenzene	<0.00200	U		0.0998	0.08350		mg/Kg			84	70 <sub>-</sub> 130		
m-Xylene & p-Xylene	<0.00401	U		0.200	0.1553		mg/Kg			78	70 - 130		
o-Xylene	<0.00200	U		0.0998	0.07783		mg/Kg			77	70 - 130		
	MS	мs											
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	110			70 - 130									
1,4-Difluorobenzene (Surr)	105			70 - 130									
Lab Sample ID: 880-5423-A-1-I							, c	-iie	nt Sa	ampie ID:	Matrix Spike		
Matrix: Solid											Prep Typ		
Analysis Batch: 7060	<b>.</b> .	-		• •							Prep E	satch	
	Sample		•	Spike		MSD			_	~ <b>-</b>	%Rec.		RPD
Analyte	Result		lifier	Added		Qualifier	Unit			%Rec		RPD	Limit
Benzene	<0.00200			0.0994	0.1007		mg/Kg			101	70 - 130	10	35
Toluene	<0.00200			0.0994	0.09545		mg/Kg			96	70 - 130	13	35
Ethylbenzene	<0.00200			0.0994	0.09085		mg/Kg			91	70 - 130	8	35
m-Xylene & p-Xylene	<0.00401	U		0.199	0.1649		mg/Kg			83	70 - 130	6	35
o-Xylene	<0.00200	U		0.0994	0.08230		mg/Kg			82	70 - 130	6	35
	MSD	MSD	)										
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	102			70 - 130									
1,4-Difluorobenzene (Surr)	42	S1-		70 - 130									
lethod: 8015B NM - Diese	I Range O	rgan	nics (DR	O) (GC)									
Leh Comple ID: MD 990 7009/4										Oliont De	mple ID: Me	4 h a al	Diank
Lab Sample ID: MB 880-7068/1 Matrix: Solid	-A									Chefit Sa			
											Prep Typ		
Analysis Batch: 7036		MD	мр								Prep E	satch	: /000
Analysis			MB		ы	Unit		<b>_</b>		un un a un a d	Analyzed		
Analyte					RL			D	-	repared	Analyzed		Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<	\$50.0	U		50.0	mg/	NY		08/2	5/21 14:14	08/25/21 21:1	10	1
Diesel Range Organics (Over	<	<50.0	U		50.0	mg/	Ka		08/2	5/21 14:14	08/25/21 21:1	10	1
C10-C28)		00.0	•		00.0		.9		00/2		00,20,2121		
Oll Range Organics (Over C28-C36)	<	<50.0	U		50.0	mg/	Kg		08/2	5/21 14:14	08/25/21 21:1	10	1
Total TPH		\$0.0			50.0	mg/				5/21 14:14	08/25/21 21:1		1
		MВ	МВ										
Surrogate	%Reco			Limit	s				P	repared	Analyzed		Dil Fac
1-Chlorooctane		103								5/21 14:14	08/25/21 21:	10	1
o-Terphenvl		99		70 - 1						5/21 14.14			-

o-Terphenyl	99	70 - 130			08/2	5/21 14:14	08/25/21	21:10	1
Lab Sample ID: LCS 880-7068/2-A					Client	Sample	ID: Lab C	ontrol Sam	ple
Matrix: Solid							Prep 1	Type: Total	/NA
Analysis Batch: 7036							Pre	p Batch: 7	068
	Sp	ike LCS	LCS				%Rec.		
Analyte	Add	led Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	10	866.7		mg/Kg		87	70 - 130		
(GRO)-C6-C10									

Eurofins Xenco, Carlsbad

Job ID: 890-1149-1

SDG: WSPTE012921045

#### Eurotins Xenco,

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Lab Sample ID: LCS 880-70 Matrix: Solid	68/2-A						Client	Sample	ID: Lab Co Prep 1	ontrol Sa Type: To	
Analysis Batch: 7036									Pre	p Batch	: 706
-			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over			1000	947.8		mg/Kg		95	70 - 130		
C10-C28)						00					
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	88		70 - 130								
Lab Sample ID: LCSD 880-7	068/3_4					Clic	ont Sam		Lab Contro	Samul	
Matrix: Solid	000/J-A					Cite	ant San	ipie iD.			
										Type: To	
Analysis Batch: 7036			Spike	1.060	LCSD					p Batch	: 70 R
han - hada			Spike			11		0/ <b>D</b> = =	%Rec.		
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Liı
Gasoline Range Organics (GRO)-C6-C10			1000	879.6		mg/Kg		88	70 - 130	1	
Diesel Range Organics (Over			1000	926.2		mg/Kg		93	70 - 130	2	
C10-C28)											
		LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	93		70 - 130								
p-Terphenyl	85		70 - 130								
Lab Sample ID: 890-1147-A· Matrix: Solid Analysis Batch: 7036	-1-C MS							Client		: Matrix Type: To p Batch	tal/N
Analysis Datch. 7000	Sample	Sample	Spike	MS	MS				%Rec.	p Daten	. 70
Analyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<50.0		995	872.7	Quaimer	mg/Kg		88	70 - 130		
GRO)-C6-C10	~50.0	0	990	072.7		my/ky		00	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	995	857.9		mg/Kg		86	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	86		70 - 130								
o-Terphenyl	75		70 - 130								
						-					
Lab Sample ID: 890-1147-A	-1-D MISD					C	ment Sa	ample ID	): Matrix Sp		
Matrix: Solid										ype: To	
Analysis Batch: 7036	-	<b>.</b> .	<b>.</b>							p Batch	
	-	Sample	Spike		MSD		_		%Rec.		R
Analyte		Qualifier	Added		Qualifier	Unit	<u>D</u>	%Rec	Limits	RPD	Liı
Gasoline Range Organics	<50.0	U	998	956.6		mg/Kg		96	70 - 130	9	
GRO)-C6-C10	~=0.0		000	004 4		ma/K~		00	70 120	2	
	<50.0	U	998	884.1		mg/Kg		89	70 - 130	3	
Diesel Range Organics (Over C10-C28)	MSD	MSD									
	MSD %Recovery		Limits								
C10-C28)			Limits 70 - 130								

Project/Site: Elk Wallow 11 State #1

Client: WSP USA Inc.

#### **QC Sample Results**

Job ID: 890-1149-1 SDG: WSPTE012921045

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

=											
Lab Sample ID: MB 880-7054/1-	Α							Client	Sample ID:		
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 7085											
		MB MB					_				
Analyte		sult Qualifier			Unit		<u>D</u>	Prepared	Analy		Dil Fac
Chloride	<5	5.00 U		5.00	mg/K	g			08/26/21	00:35	1
Lab Sample ID: LCS 880-7054/2	- <b>A</b>						Clie	ent Samp	le ID: Lab C	ontrol S	ample
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 7085											
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits		
Chloride			250	269.1		mg/Kg		108	90 - 110		
Lab Sample ID: LCSD 880-7054	/ <b>3-A</b>					Cli	ient S	ample ID:	Lab Contr	ol Sampl	le Dur
Matrix: Solid										Type: S	
Analysis Batch: 7085											
· ······			0	1.000	LCSD				a/ <b>D</b>		
			Spike	LCSD	LCSD				%Rec.		RPL
Analyte			Added		Qualifier	Unit		D %Rec	%Rec. Limits	RPD	
			•			Unit mg/Kg		<b>D</b> %Rec 108		<b>RPD</b> 0	Limi
Chloride	BMS		Added	Result				108	Limits 90 - 110	0	<b>Limi</b> 20
	BMS		Added	Result				108	Limits 90 - 110 t Sample II	0 D: Matrix	
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid	B MS		Added	Result				108	Limits 90 - 110 t Sample II	0	Limi 20 <b>Spike</b>
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid	B MS Sample 3	Sample	Added	Result				108	Limits 90 - 110 t Sample II	0 D: Matrix	Limi 20 <b>Spike</b>
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid Analysis Batch: 7085	Sample	Sample Qualifier	Added 250	Result 269.3 MS	Qualifier			108	Limits 90 - 110 t Sample IE Prep	0 D: Matrix	Limi 20 <b>Spike</b>
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid Analysis Batch: 7085 Analyte	Sample	•	Added 250 Spike	Result 269.3 MS	Qualifier	mg/Kg		108 Clien	Limits 90 - 110 t Sample II Prep %Rec.	0 D: Matrix	Limi 20 Spike
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid Analysis Batch: 7085 Analyte Chloride	Sample Result 883	•	Added 250 Spike Added	Result 269.3 MS Result	Qualifier	mg/Kg		D %Rec 104	Limits 90 - 110 t Sample II Prep %Rec. Limits 90 - 110	0 D: Matrix Type: S	Limi 20 Spike Soluble
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid Analysis Batch: 7085 Analyte Chloride Lab Sample ID: 890-1148-A-22-C	Sample Result 883	•	Added 250 Spike Added	Result 269.3 MS Result	Qualifier	mg/Kg		D %Rec 104	Limits 90 - 110 t Sample II Prep %Rec. Limits 90 - 110 D: Matrix S	D: Matrix Type: S	Limi 20 Spike oluble
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid Analysis Batch: 7085 Analyte Chloride Lab Sample ID: 890-1148-A-22-C Matrix: Solid	Sample Result 883	•	Added 250 Spike Added	Result 269.3 MS Result	Qualifier	mg/Kg		D %Rec 104	Limits 90 - 110 t Sample II Prep %Rec. Limits 90 - 110 D: Matrix S	0 D: Matrix Type: S	Limi 20 Spike Soluble
Chloride Lab Sample ID: 890-1148-A-22-E Matrix: Solid Analysis Batch: 7085 Analyte Chloride Lab Sample ID: 890-1148-A-22-C Matrix: Solid	Sample Result 883 C MSD	Qualifier	Added 250 Spike Added 253	Result 269.3 MS Result 1146	Qualifier MS Qualifier	mg/Kg		D %Rec 104	Limits 90 - 110 t Sample IE Prep %Rec. Limits 90 - 110 D: Matrix S Prep	D: Matrix Type: S	Limi 20 Spike Soluble
	Sample Result 883 C MSD Sample	Qualifier	Added 250 Spike Added	Result 269.3 MS Result	Qualifier MS Qualifier MSD	mg/Kg	Client	D %Rec 104	Limits 90 - 110 t Sample II Prep %Rec. Limits 90 - 110 D: Matrix S	D: Matrix Type: S	Limi 20 Spike soluble

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#### **QC Association Summary**

Prep Type

Total/NA

Total/NA

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

**GC VOA** 

Matrix

Solid

Prep Batch

#### Job ID: 890-1149-1 SDG: WSPTE012921045

5

Solid	8015B NM	7068	
Matrix	Method	Prep Batch	1
Solid	8021B	7058	
Solid	00210	7050	

8015NM Prep

8015NM Prep

8015NM Prep

Method

5035

Prep Batch: 7058	
Lab Sample ID	Client Sample ID
890-1149-1	SW13
MB 880-7058/5-A	Method Blank

MB 880-7058/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7058/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7058/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5423-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-5423-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
- Analysis Batch: 7060 -					
-					
- Analysis Batch: 7060 - Lab Sample ID 890-1149-1	Client Sample ID	Prep Type Total/NA	Matrix Solid	<u>Method</u> 8021B	Prep Batch 7058
Lab Sample ID	•				
	SW13	Total/NA	Solid	8021B	7058
Lab Sample ID 890-1149-1 MB 880-7058/5-A	SW13 Method Blank	Total/NA Total/NA	Solid Solid	8021B 8021B	7058 7058

#### GC Semi VOA

880-5423-A-1-E MSD

Matrix Spike Duplicate

Lab Control Sample Dup

Matrix Spike Duplicate

Matrix Spike

#### Analysis Batch: 7036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1149-1	SW13	Total/NA	Solid	8015B NM	7068
MB 880-7068/1-A	Method Blank	Total/NA	Solid	8015B NM	7068
_CS 880-7068/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7068
_CSD 880-7068/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7068
390-1147-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	7068
890-1147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7068
rep Batch: 7068					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-1149-1	SW13	Total/NA	Solid	8015NM Prep	
MB 880-7068/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7068/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Total/NA

Total/NA

Total/NA

Solid

Solid

Solid

LC3 000-7000/2-A
LCSD 880-7068/3-A
890-1147-A-1-C MS
890-1147-A-1-D MSD
890-1147-A-1-D MSD

#### HPLC/IC

#### Leach Batch: 7054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-1149-1	SW13	Soluble	Solid	DI Leach	
MB 880-7054/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7054/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7054/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1148-A-22-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1148-A-22-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
Analysis Batch: 7085					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-1149-1	SW13	Soluble	Solid	300.0	7054
MB 880-7054/1-A	Method Blank	Soluble	Solid	300.0	7054
LCS 880-7054/2-A	Lab Control Sample	Soluble	Solid	300.0	7054

Eurofins Xenco, Carlsbad

#### **QC** Association Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1149-1 SDG: WSPTE012921045

#### HPLC/IC (Continued)

#### Analysis Batch: 7085 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-7054/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7054
890-1148-A-22-B MS	Matrix Spike	Soluble	Solid	300.0	7054
890-1148-A-22-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	7054

#### Lab Chronicle

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

#### Client Sample ID: SW13 Date Collected: 08/23/21 11:00

Date Received: 08/25/21 08:04

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7058	08/25/21 11:45	MR	XEN MID
Total/NA	Analysis	8021B		1	7060	08/25/21 22:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			7068	08/25/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7036	08/26/21 03:47	AJ	XEN MID
Soluble	Leach	DI Leach			7054	08/25/21 10:13	СН	XEN MID
Soluble	Analysis	300.0		1	7085	08/26/21 03:23	СН	XEN MID

#### Laboratory References:

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

Eurofins Xenco, Carlsbad

#### Accreditation/Certification Summary

Client: WSP	USA Inc.	
Project/Site:	Elk Wallow 11	State #1

Job ID: 890-1149-1 SDG: WSPTE012921045

#### Laboratory: Eurofins Xenco, Midland

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

uthority		Program	Identification Number	Expiration Date
exas		NELAP	T104704400-20-21	06-30-22
The following analytes the agency does not o		but the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v
Analysis Method	Prep Method	Matrix	Analvte	
Analysis Method 8015B NM	Prep Method 8015NM Prep	Matrix Solid	Analyte Total TPH	

Eurofins Xenco, Carlsbad

#### **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Job ID: 890-1149-1 SDG: WSPTE012921045

Method	Method Description	Protocol	Laboratory	
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID	
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID	
300.0	Anions, Ion Chromatography	MCAWW	XEN MID	
5035	Closed System Purge and Trap	SW846	XEN MID	
8015NM Prep	Microextraction	SW846	XEN MID	
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID	
Protocol Refe				
	ASTM International = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1	983 And Subsequent Revisions.		
	"Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition.			- 1
	,			
Laboratory R	eferences:			
XEN MID	= Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-54	40		

#### Protocol References:

#### Laboratory References:

#### Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1149-1 SDG: WSPTE012921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1149-1	SW13	Solid	08/23/21 11:00	08/25/21 08:04	0 - 10	
						5
						8
						9
						12
						13

Revised Date 051418 Rev. 2018 1		0 A					MARN	5 100
		0e(	8/15/21 8:0			N	Inter	· Chi C
Received by: (Signature) Date/Time		Relinquished by: (Signature)	Date/Time	ure)	Received by: (Signature)	re)	by: (Signatu	Relinquished by: (Signature)
1 conditions d the control stlated.	tractors. It assigns standard terms and conditions losses are due to circumstances beyond the control will be enforced unless previously negotlated.		<del>, elient company to Xenco, it</del> y losses or expenses incurri submitted to Xenco, but not	valid purchase order frem- e any responsibility for any rge of \$5 for each sample s	constitutes a all not assum ect and a cha	<u>d relinquishment of s</u> r the cost of samples ) will be applied to ea	his document and I be liable only fo n charge of \$75.00	Notice: Signature of this document and relinquishment of samples of service. Xenco will be liable only for the cost of samples and sh of Xenco. A minimum charge of \$75.00 will be applied to each proj
K Se Ag SiO2 Na Sr TI Sn U V Zn 1631/245.1/7470 /7471 : Hg	Pb Mn Mo Ni Se Ag Ti U	B Cd Ca Cr Cc Cd Cr Co Cu	Sb As Ba Be Sb As Ba Be	CRA 13PPM Texas 11 Al TCLP / SPLP 6010: 8RCRA	쭷	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.7 / 6010 20 9 Method(s) and Me	Total 200.7 Circle Meth
								/
					/			
						\		
composite		×	1 × ×	0-10	8/23/2021 1100	S	SW13	
Sample Comments			Numb TPH (E BTEX ( Chlorid	Depth	Date Time Sampled Sampled	Matrix	Sample Identification	Sample I
lab, if received by 4:30pm			EPA 8	-	Total Containers:	IS NO NIA	Seals: Yes	Sample Custody Seals:
TAT starts the day received by the			3015) 	5	Correction Factor:	z	eals: Yes	Cooler Custody Seals:
	CONTRACT OF CUSIOUS	-	021)	i	T-NM-007	Yes No		Received Intact:
	100001149 Chain of Custody	068			╔╴┝	2 /4.0		Temperature (°C):
INC: NAPP2110461994				No No	No No	_	CEIDT	
API: 30-015-37588				Due Date:8-25-21		Alexis Castro		Sampler's Name:
AFE: PA.2020.02331.EXP.01				Rush: 24hr	Rust	4/1/2021		P.O. Number:
CC: 1598041001				ine	1045 Routine	WSPTE012921045		Project Number:
Work Order Notes	S REQUEST	ANALYSIS		Turn Around		Elk Wallow 11 State #1		Project Name:
D ADaPT Other:	Deliverables: EDD		@wsp.com	Alexis.Castro@wsp.com	Email:	236-3849	(432) 236	Phone:
	Reporting:Level II	220	: Carlsbad, NM 88220	City, State ZIP:		TX 79705	Midland, TX 79705	City, State ZIP:
	State of Project:	St.	522 W. Mermod St.	Address:		3300 North A Street	3300 Nor	Address:
ST PRP Brownfields RRC Duperfund	Program: UST/PST		ie: XTO Energy	Company Name:		А	WSP USA	Company Name:
Work Order Comments			A) Kyle Littrell	Bill to: (if different)			Dan Moir	Project Manager:
www.xenco.com Page of of	210) 509-3334 06)794-1296 Tampa,FL (813-620-2000)		Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antono, IX (210) 909-3339 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (81)	TX (281) 240-420 I,TX (432-704-544 7550) Phoenix A	Houston, Midlanc Hobbs,NM (575-392-		XMZ	
Work Order No:		ustody	Chain of Custody				í	

Received by OCD: 11/4/2021 2:30:53 PM

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Page 17 of 20

8/26/2021

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Eurofins )	
Xenco, Carlsba	
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lsbad	
	8
	9
	13

# **Chain of Custody Record**



Relinquished by	12. 52. 3 MMM	linquished	Deliverable Requested   II III IV Other (specify)	r ossune nazaru identirication Unconfirmed	maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC aboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC aboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC aboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC.	Note: Since laboratory accreditations are subject to change Eurofins Xenco LLC plac							SW13 (890-1149-1)			Sample Identification - Client ID (Lab ID)		Wallow 11 State #1		₀ 704-5440(Tel)	State Zip. TX 79701	Triv Midland	V Florida Ave,	Eurofins Xenco	ceiving	Client Information (Sub Contract Lab)	75-988-3199 Fax: 575-988-3199	Carlsbad NM 88220	
Date/Time <sup>-</sup>	Date/Time <sup>,</sup>		Primary Deliverable Rank 2		g analyzed the sa gned Chain of Cu	es the ownership							8/23/21	X		Sample Date	SSOW#	Project # 89000004	WO #	PO #:		TAT Requested (days):	Due Date Requested 8/26/2021		FIDIE	Sampler		~	
		Date	able Rank 2		amples must be stody attesting to	of method analy							 Mountain	X		Sample Time						ays):	ed					Chain of Custody Record	
ç					shipped back to said complican	/te & accreditation								Preservation Code:		Sample Type (C=comp, G=grab)												of Cust	
Company	Company				the Eurofins X Ice to Eurofins	on compliance							Solid	n Code;	ł						, <del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>			7	E-Mail Jessic:	Lab PM Krame		ody Re	
R	R	Time	Speci	Samp	enco LLC Xenco LL	upon out					 			$\otimes$	H	Field Filtered S Perform MS/M 3015MOD_NM/80	SD (Y	es or	No)	ngar saala	<u>terstorithenn</u>			Accreditations Required (See note) NELAP - Louisiana NELAP	E-Mail Jessica.kramer@eurofinset.com	Lab PM Kramer Jessica		cor	
Received by	Received	-	Special Instructions/QC Requirements	Sample Disposal ( A fee Return To Client	laborato C.	subcontra							 ××	tor-ta	4	800_ORGFM_28								ons Requ Louisia	r@euro	င်ရ		đ	
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	P		QC Re	A fee i ent	r instruc	atories		_	-+		 				Sup-folgers line.								Analy	1.1	ЮШ				
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				than 1	ald be bro	e lahorat									Special Instructions/Note				4	r Acid	uid 14		ion Cod	5	1			SILLIS	5
Company	Company			mo	ught to E										structi			Z othe			Q P O Nast		es				America	Envir	-
γnε	ny			<b>nth)</b> Months	urofins X	not out o								$\ $	ons/Nc			pH 4-5 other (specify)	Acetone MCAA	Na2S2O3 H2SO4 TSP Dodecabudrate	AsNaO2 Na2O4S Na2SO3	Hexane None					rica	onment	
					enco LLC	p.etc.					ĺ				te			Y)	ang anato	hudrate								Environment Testing	

Relinquished by

Date/Time

Company

Received by:

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Company

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Q à

Ver 06/08/2021

Cooler Temperature(s) °C and Other Remarks

Custody Seals Intact. ∆ Yes ∆ No

Custody Seal No

14

Job Number: 890-1149-1 SDG Number: WSPTE012921045

List Source: Eurofins Xenco, Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1149 List Number: 1 Creator: Olivas, Nathaniel

<6mm (1/4").

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 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	
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	True	
cample 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 /IS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

Job Number: 890-1149-1 SDG Number: WSPTE012921045

List Source: Eurofins Xenco, Midland

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1149 List N Create

List Number: 2			List Creation: 08/25/21 01:37 I
Creator: Kramer, Jessica			
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	2.3/2.8	
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested	True		

N/A

There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

14

РМ

Received by OCD: 11/4/2021 2:30:53 PM

# eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

#### Laboratory Job ID: 890-1154-1

Laboratory Sample Delivery Group: WSPTE012921045 Client Project/Site: Elk Wallow 11 State #1

#### For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 8/30/2021 8:48:20 AM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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

LINKS **Review your project** results through **Total** Access Have a Question? Ask-The Expert Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/8/2022 3:41:54 PM

Laboratory Job ID: 890-1154-1 SDG: WSPTE012921045

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#### **Definitions/Glossary**

Client: WSP USA Inc.
Project/Site: Elk Wallow 11 State #1

Job ID: 890-1154-1 SDG: WSPTE012921045

Qualifiers	

NC

ND

NEG

POS

PQL

PRES QC

RER

RL RPD

TEF

TEQ

TNTC

Qualifiers		 3
GC VOA		
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	
U	Indicates the analyte was analyzed for but not detected.	5
GC Semi VOA		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	 8
Glossary		 Q
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	13
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	

Not Calculated

Negative / Absent

Positive / Present Practical Quantitation Limit

Presumptive

Quality Control

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

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

Project/Site: Elk Wallow 11 State #1

4

5

#### Job ID: 890-1154-1 SDG: WSPTE012921045

#### Job ID: 890-1154-1

Client: WSP USA Inc.

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1154-1

#### Receipt

The samples were received on 8/25/2021 8:03 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

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

Project/Site: Elk Wallow 11 State #1

Job ID: 890-1154-1 SDG: WSPTE012921045

Analyzed

08/26/21 12:13

08/26/21 12:13

08/26/21 12:13

08/26/21 12:13

08/26/21 12:13

08/26/21 12:13

08/26/21 12:13

Analyzed

08/26/21 12:13

08/26/21 12:13

Lab Sample ID: 890-1154-2

Matrix: Solid

RL

0.00200

0.00200

0.00200

0.00399

0.00200

0.00399

0.00399

Limits

70 - 130

70 - 130

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

08/25/21 16:44

08/25/21 16:44

08/25/21 16:44

08/25/21 16:44

08/25/21 16:44

08/25/21 16:44

08/25/21 16:44

Prepared

08/25/21 16:44

08/25/21 16:44

Client Sample ID: FS06
Date Collected: 08/23/21 09:50
Date Received: 08/25/21 08:03

Sample Depth: 12

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Client: WSP USA Inc.

Lab Sample ID: 890-1154-1 Matrix: Solid

Dil Fac

1

1

1

1

1

1

1

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

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00399 U

<0.00200 U

<0.00399 U

<0.00399 U

%Recovery Qualifier

146

103

S1+

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 04:49	1	
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 04:49	1	
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 04:49	1	
Total TPH	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 04:49	1	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	08/25/21 14:14	08/26/21 04:49	1
o-Terphenyl	96		70 - 130	08/25/21 14:14	08/26/21 04:49	1

Method:	300.0	- Anions,	lon	Chroma	tograp	hy ·	- So	lubl	е

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	401	4.98	mg/Kg			08/27/21 19:29	1

#### **Client Sample ID: SW14** Date Collected: 08/23/21 13:50 Date Received: 08/25/21 08:03

Sample Depth: 0 - 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00202	U	0.00202	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
Total BTEX	<0.00403	U	0.00403	mg/Kg		08/25/21 16:44	08/26/21 12:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130			08/25/21 16:44	08/26/21 12:34	1
1,4-Difluorobenzene (Surr)	101		70 - 130			08/25/21 16:44	08/26/21 12:34	1

Eurofins Xenco, Carlsbad

#### **Client Sample Results**

Job ID: 890-1154-1 SDG: WSPTE012921045

#### Client Sample ID: SW14

Project/Site: Elk Wallow 11 State #1

Date Collected: 08/23/21 13:50 Date Received: 08/25/21 08:03

Sample Depth: 0 - 10

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		08/25/21 14:14	08/26/21 05:10	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		08/25/21 14:14	08/26/21 05:10	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/25/21 14:14	08/26/21 05:10	1
Total TPH	<49.8	U	49.8	mg/Kg		08/25/21 14:14	08/26/21 05:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			08/25/21 14:14	08/26/21 05:10	1
o-Terphenyl	93		70 - 130			08/25/21 14:14	08/26/21 05:10	1
_ Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

5.00

mg/Kg

204

#### **Client Sample ID: FS07**

Chloride

Date Collected: 08/23/21 14:00 Date Received: 08/25/21 08:03 Sample Depth: 12

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		08/25/21 16:44	08/26/21 12:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/25/21 16:44	08/26/21 12:54	1

								-
1,4-Difluorobenzene (Surr)	99		70 - 130			08/25/21 16:44	08/26/21 12:54	1
Method: 8015B NM - Diesel Range	Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 05:31	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 05:31	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 05:31	1
Total TPH	<50.0	U	50.0	mg/Kg		08/25/21 14:14	08/26/21 05:31	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	98		70 - 130			08/25/21 14:14	08/26/21 05:31	1	
o-Terphenyl	93		70 - 130			08/25/21 14:14	08/26/21 05:31	1	
Method: 300.0 - Anions, Ion Chron	atography -	Soluble							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	527		50.0	mg/Kg			08/27/21 19:40	10	

#### Eurofins Xenco, Carlsbad

Lab Sample ID: 890-1154-2 Matrix: Solid

5

1

08/27/21 19:34

Method: 8021B - Volatile Organic Compounds (GC)

#### Matrix: Solid

-1154-1       FS06       146 S1+       103         -1154-1 MS       FS06       115       106         -1154-1 MSD       FS06       113       107         -1154-2       SW14       126       101         -1154-3       FS07       119       99         S 880-7083/1-A       Lab Control Sample       119       95         SD 880-7083/2-A       Lab Control Sample Dup       111       104         880-7083/5-A       Method Blank       109       98					Percent Surrogate Recovery (Acceptance Limits)
Interview         FS06         146 S1+         103           100-1154-1         FS06         115         106           100-1154-1         MS         FS06         115         106           100-1154-1         MSD         FS06         113         107           100-1154-2         SW14         126         101           100-1154-3         FS07         119         99           CS 880-7083/1-A         Lab Control Sample         119         95           CSD 880-7083/2-A         Lab Control Sample Dup         111         104           B 880-7083/5-A         Method Blank         109         98			BFB1	DFBZ1	
90-1154-1 MSFS0611510690-1154-1 MSDFS0611310790-1154-2SW1412610190-1154-3FS0711999CS 880-7083/1-ALab Control Sample11995CSD 880-7083/2-ALab Control Sample Dup111104IB 880-7083/5-AMethod Blank10998	ab Sample ID	Client Sample ID	(70-130)	(70-130)	
B30-1154-1 MSDFS06113107B30-1154-2SW14126101B30-1154-3FS0711999LCS 880-7083/1-ALab Control Sample11995LCSD 880-7083/2-ALab Control Sample Dup111104MB 880-7083/5-AMethod Blank10998	390-1154-1	FS06	146 S1+	103	
890-1154-2SW14126101890-1154-3FS0711999LCS 880-7083/1-ALab Control Sample11995LCSD 880-7083/2-ALab Control Sample Dup111104MB 880-7083/5-AMethod Blank10998	890-1154-1 MS	FS06	115	106	
890-1154-3FS0711999LCS 880-7083/1-ALab Control Sample11995LCSD 880-7083/2-ALab Control Sample Dup111104MB 880-7083/5-AMethod Blank10998	890-1154-1 MSD	FS06	113	107	
LCS 880-7083/1-A       Lab Control Sample       119       95         LCSD 880-7083/2-A       Lab Control Sample Dup       111       104         MB 880-7083/5-A       Method Blank       109       98	890-1154-2	SW14	126	101	
LCSD 880-7083/2-A         Lab Control Sample Dup         111         104           MB 880-7083/5-A         Method Blank         109         98	890-1154-3	FS07	119	99	
MB 880-7083/5-A Method Blank 109 98	LCS 880-7083/1-A	Lab Control Sample	119	95	
	LCSD 880-7083/2-A	Lab Control Sample Dup	111	104	
Surrogate Legend	MB 880-7083/5-A	Method Blank	109	98	
	Surrogate Legend				

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

#### Matrix: Solid

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1147-A-1-C MS	Matrix Spike	86	75
890-1147-A-1-D MSD	Matrix Spike Duplicate	90	75
890-1154-1	FS06	101	96
890-1154-2	SW14	99	93
890-1154-3	FS07	98	93
LCS 880-7068/2-A	Lab Control Sample	96	88
LCSD 880-7068/3-A	Lab Control Sample Dup	93	85
MB 880-7068/1-A	Method Blank	103	99

#### Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

#### Job ID: 890-1154-1 SDG: WSPTE012921045

Prep Type: Total/NA

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

#### Lab Sample ID: MB 880-7083/5-A

Matrix: Solid Analysis Batch: 7093

						i iep Date	
MB	MB						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
<0.00200	U	0.00200	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
<0.00200	U	0.00200	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
<0.00400	U	0.00400	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
<0.00200	U	0.00200	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
<0.00400	U	0.00400	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
<0.00400	U	0.00400	mg/Kg		08/25/21 16:44	08/26/21 11:52	1
МВ	МВ						
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
109		70 - 130			08/25/21 16:44	08/26/21 11:52	1
98		70 - 130			08/25/21 16:44	08/26/21 11:52	1
	Result           <0.00200	Result         Qualifier           <0.00200	Result         Qualifier         RL           <0.00200	Result         Qualifier         RL         Unit           <0.00200	Result         Qualifier         RL         Unit         D           <0.00200	Result         Qualifier         RL         Unit         D         Prepared           <0.00200	MB         MB           Result         Qualifier         RL         Unit         D         Prepared         Analyzed           <0.00200

#### Lab Sample ID: LCS 880-7083/1-A Matrix: Solid

#### Analysis Batch: 7093

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1010		mg/Kg		101	70 - 130	
Toluene	0.100	0.1027		mg/Kg		103	70 - 130	
Ethylbenzene	0.100	0.1059		mg/Kg		106	70 - 130	
m-Xylene & p-Xylene	0.200	0.2208		mg/Kg		110	70 <sub>-</sub> 130	
o-Xylene	0.100	0.1007		mg/Kg		101	70 <sub>-</sub> 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

#### Lab Sample ID: LCSD 880-7083/2-A Matrix: Solid

Matrix: Solid Analysis Batch: 7093										Type: Tot p Batch:	
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.100	0.08601		mg/Kg		86	70 - 130	16	35
Toluene			0.100	0.08076		mg/Kg		81	70 _ 130	24	35
Ethylbenzene			0.100	0.07986		mg/Kg		80	70 - 130	28	35
m-Xylene & p-Xylene			0.200	0.1668		mg/Kg		83	70 - 130	28	35
o-Xylene			0.100	0.08252		mg/Kg		83	70 - 130	20	35
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	111		70 - 130								

1,4-Difluorobenzene (Surr)	104		70 - 130							
Lab Sample ID: 890-1154-1 MS Matrix: Solid									Prep <sup>-</sup>	mple ID: FS06 Type: Total/NA
Analysis Batch: 7093										p Batch: 7083
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.08819		mg/Kg		88	70 - 130	

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#### Job ID: 890-1154-1 SDG: WSPTE012921045

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7083

 
 Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 7083
 4

 5/21 16:44
 08/26/21 11:52
 1

 5/21 16:44
 08/26/21 11:52
 1

 5/21 16:44
 08/26/21 11:52
 1

 5/21 16:44
 08/26/21 11:52
 1

 5/21 16:44
 08/26/21 11:52
 1

 5/21 16:44
 08/26/21 11:52
 1

MS MS

MSD MSD

Qualifier

Result

0.09075

0.08506

0.08285

0.1725

0.08542

0.08412

0.08191

0.1718

0.08545

**Result Qualifier** 

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.0998

0.0998

0.200

0.0998

Limits

70 - 130

70 - 130

Spike

Added

0.101

0.101

0.101

0.202

0.101

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Lab Sample ID: 890-1154-1 MS

Matrix: Solid

Analyte

Toluene

o-Xylene

Surrogate

Matrix: Solid

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Ethylbenzene

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

Lab Sample ID: 890-1154-1 MSD

1,4-Difluorobenzene (Surr)

Analysis Batch: 7093

Analysis Batch: 7093

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

Sample Sample

<0.00200

<0.00200

<0.00399 U

<0.00200 U

115

106

%Recovery

**Result Qualifier** 

U

U

MS MS

Sample Sample

<0.00200

< 0.00200

<0.00200 U

<0.00399 U

<0.00200 U

Result Qualifier

υ

U

MSD MSD 

Qualifier

Job ID: 890-1154-1 SDG: WSPTE012921045

**Client Sample ID: FS06** 

%Rec.

Limits

70 - 130

70 - 130

70 - 130

70 - 130

%Rec

84

82

86

86

D

Prep Type: Total/NA

Prep Batch: 7083

# 7

		ype: Io	
	: 7083	p Batch	Pre
	RPD		%Rec.
	Limit	RPD	Limits
i	35	3	70 - 130
	35	1	70 - 130
i	35	1	70 - 130
	35	0	70 130

		Client Sa	mple ID:	FS06
		Prep T	ype: To	tal/NA
		Pre	p Batch	7083
		%Rec.		RPD
D	%Rec	Limits	RPD	Limit
	90	70 - 130	3	35
	84	70 - 130	1	35
	82	70 - 130	1	35
	86	70 - 130	0	35
	85	70 - 130	0	35

Surrogate	%Recovery Qua	alifier Limits
4-Bromofluorobenzene (Surr)	113	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130
Method: 8015B NM - Dies	el Range Orga	nics (DRO) (GC)
_		

Lab Sample ID: MB 880-7068/1-A Matrix: Solid Analysis Batch: 7036	ма	МБ						Client Sa	ample ID: Metho Prep Type: <sup>-</sup> Prep Bato	Fotal/NA
Analyte	MB Result	MB Qualifier	RL		Unit		DF	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0		50.0		mg/K	9		25/21 14:14	08/25/21 21:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/K	9	08/2	25/21 14:14	08/25/21 21:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/K	3	08/2	25/21 14:14	08/25/21 21:10	1
Total TPH	<50.0	U	50.0		mg/K	]	08/2	25/21 14:14	08/25/21 21:10	1
	МВ	МВ								
Surrogate	%Recovery	Qualifier	Limits				F	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				08/2	25/21 14:14	08/25/21 21:10	1
o-Terphenyl	99		70 - 130				08/2	25/21 14:14	08/25/21 21:10	1
Lab Sample ID: LCS 880-7068/2-A							Clien	t Sample	ID: Lab Control	Sample
Matrix: Solid									Prep Type: <sup>-</sup>	Total/NA
Analysis Batch: 7036									Prep Bate	ch: 7068
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	

Gasoline Range Organics (GRO)-C6-C10

Eurofins Xenco, Carlsbad

70 - 130

87

866.7

mg/Kg

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Page 179 of 211

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

Lab Sample ID: LCS 880-70 Matrix: Solid	68/2-A						Client	Sample	ID: Lab Co Prep 1	ontrol Sa Type: Tot	
Analysis Batch: 7036										p Batch	
			Spike	LCS	LCS				%Rec.		
Analyte			Added		Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over			1000	947.8		mg/Kg		95	70 - 130		
C10-C28)			1000	011.0		ingrig		00	101100		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	88		70 - 130								
Lab Sample ID: LCSD 880-7	068/3-4					Clie	ont Sam	nde ID· I	Lab Contro	l Samnl	م Dı
Matrix: Solid	000/0-4					on				Type: To	
Analysis Batch: 7036										p Batch	
Analysis Batch. 7050			Spike		LCSD				%Rec.	p Daten	RI
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lir
Gasoline Range Organics		. <u> </u>	1000	879.6	acuantici	mg/Kg		88	70 - 130	1	
(GRO)-C6-C10			1000	073.0		mg/ixg		00	10-100	I	
Diesel Range Organics (Over C10-C28)			1000	926.2		mg/Kg		93	70 - 130	2	
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	93		70 - 130								
o-Terphenyl	85		70 - 130								
Matrix: Solid Analysis Batch: 7036									Pre	ype: To p Batch	
	-	Sample	Spike	MS	MS				%Rec.		
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics GRO)-C6-C10	<50.0	U	995	872.7		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	995	857.9		mg/Kg		86	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	86		70 - 130								
o-Terphenyl	75		70 - 130								
Lab Sample ID: 890-1147-A	-1-D MSD					c	lient S	ample IF	): Matrix Sp	oike Dun	olica
Matrix: Solid										Type: To	
Analysis Batch: 7036										p Batch	
analysis Butom 1000	Sample	Sample	Spike	MSD	MSD				%Rec.	- Satori	R
Analyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lir
Gasoline Range Organics	<50.0		998	956.6		mg/Kg		96	70 - 130	9	
GRO)-C6-C10				<b>66</b> • • •				<u> </u>	70 100	-	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	884.1		mg/Kg		89	70 <sub>-</sub> 130	3	
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
Surrogate 1-Chlorooctane	% <i>Recovery</i> 90	Qualifier	Limits 70 - 130								

Project/Site: Elk Wallow 11 State #1

Client: WSP USA Inc.

#### **QC Sample Results**

Job ID: 890-1154-1 SDG: WSPTE012921045

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

Lab Sample ID: MB 880-7089/1-A									Clie	ent S	ample ID:		
Matrix: Solid											Prep	Type: So	oluble
Analysis Batch: 7168													
Analyte		MB	MB Qualifier		RL		Jnit	D	Drene	لمما	Analyz	a d	Dil Fac
Chloride		<5.00			5.00		ng/Kg	<u> </u>	Prepa	eu	_ Analyz		
		\$3.00	0		5.00		ng/ng				00/21/21	10.52	1
Lab Sample ID: LCS 880-7089/2-A								Clie	ent Sai	nple	ID: Lab Co	ontrol Sa	ample
Matrix: Solid										÷.,		Type: So	
Analysis Batch: 7168													
-				Spike	LC	LCS					%Rec.		
Analyte				Added	Resu	t Qualifi	ier Unit		D %F	lec	Limits		
Chloride				250	272.	5	mg/Kg		1	09	90 _ 110		
Lab Sample ID: LCSD 880-7089/3-	Δ						CI	iont S	amnlo	ו יחו	ab Contro	Sampl	
Matrix: Solid	^								ampic	10. 6		Type: Se	
Analysis Batch: 7168											Trop	1900.0	
· ·····, · · · · · · · · · · · · · · ·				Spike	LCSI	LCSD					%Rec.		RPD
Analyte				Added	Resu	t Qualifi	ier Unit		D %F	lec	Limits	RPD	Limit
Chloride				250	272.	5	mg/Kg			09	90 - 110	0	20
-													
-	AS									iont	Sample ID	• Matrix	Snike
_ Lab Sample ID: 890-1150-A-16-D N	MS									ient	Sample ID Prep		
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid	MS									ient		: Matrix Type: So	
Lab Sample ID: 890-1150-A-16-D N	AS Sample	Samı	ble	Spike	M	5 MS				ient			
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid				Spike Added		6 MS t Qualifi	ier Unit				Prep		
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid Analysis Batch: 7168	Sample			•		t Qualif	ier <u>Unit</u> mg/Kg		CI		Prep %Rec.		
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid Analysis Batch: 7168 Analyte Chloride	Sample Result 362			Added	Resu	t Qualif	mg/Kg	Client	CI <u>D %</u> F	<b>lec</b> 98	Prep           %Rec.           Limits           90 - 110	Type: So	oluble
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid Analysis Batch: 7168 Analyte Chloride Lab Sample ID: 890-1150-A-16-E M	Sample Result 362			Added	Resu	t Qualif	mg/Kg	Client	CI <u>D %</u> F	<b>lec</b> 98	Prep %Rec. Limits 90 - 110 : Matrix Sp	Type: So  pike Dup	oluble
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid Analysis Batch: 7168 Analyte Chloride Lab Sample ID: 890-1150-A-16-E M Matrix: Solid	Sample Result 362			Added	Resu	t Qualif	mg/Kg	Client	CI <u>D %</u> F	<b>lec</b> 98	Prep %Rec. Limits 90 - 110 : Matrix Sp	Type: So	oluble
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid Analysis Batch: 7168 Analyte Chloride Lab Sample ID: 890-1150-A-16-E M	Sample Result 362	Quali	ifier	Added 248	Resu 606.	t Qualif	mg/Kg	Client	CI <u>D %</u> F	<b>lec</b> 98	Prep %Rec. Limits 90 - 110 : Matrix Sp	Type: So  pike Dup	oluble
Lab Sample ID: 890-1150-A-16-D M Matrix: Solid Analysis Batch: 7168 Analyte Chloride Lab Sample ID: 890-1150-A-16-E M Matrix: Solid	Sample Result 362	Quali	ifier	Added	Resu 606. MSI	t Qualifi	mg/Kg	Client	CI <u>D %</u> F	ec 98 le ID	Prep %Rec. Limits 90 - 110 : Matrix Sp Prep	Type: So  pike Dup	oluble

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### **QC** Association Summary

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

**Client Sample ID** 

Method Blank

Lab Control Sample

**Client Sample ID** 

Method Blank

Lab Control Sample

Lab Control Sample Dup

Lab Control Sample Dup

FS06

SW14

FS07

FS06

FS06

FS06

SW14

FS07

FS06

FS06

**GC VOA** 

890-1154-1

890-1154-2

890-1154-3

MB 880-7083/5-A

LCS 880-7083/1-A

890-1154-1 MS

890-1154-1 MSD

Lab Sample ID

890-1154-1

890-1154-2

890-1154-3

MB 880-7083/5-A

LCS 880-7083/1-A

LCSD 880-7083/2-A

LCSD 880-7083/2-A

Analysis Batch: 7093

Prep Batch: 7083

Prep Batch

Prep Batch

7083

7083

7083

7083

7083

7083

7083

7083

#### Job ID: 890-1154-1 SDG: WSPTE012921045

Method

5035

5035

5035

5035

5035

5035

5035

5035

Method

8021B

8021B

8021B

8021B

8021B

8021B

8021B

8021B

890-1154-1 MSD
GC Semi VOA

890-1154-1 MS

#### Analysis Batch: 7036

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1154-1	FS06	Total/NA	Solid	8015B NM	7068
890-1154-2	SW14	Total/NA	Solid	8015B NM	7068
890-1154-3	FS07	Total/NA	Solid	8015B NM	7068
MB 880-7068/1-A	Method Blank	Total/NA	Solid	8015B NM	7068
LCS 880-7068/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7068
LCSD 880-7068/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7068
890-1147-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	7068
890-1147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7068

#### Prep Batch: 7068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1154-1	FS06	Total/NA	Solid	8015NM Prep	
890-1154-2	SW14	Total/NA	Solid	8015NM Prep	
890-1154-3	FS07	Total/NA	Solid	8015NM Prep	
MB 880-7068/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7068/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7068/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1147-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1147-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### HPLC/IC

#### Leach Batch: 7089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1154-1	FS06	Soluble	Solid	DI Leach	
890-1154-2	SW14	Soluble	Solid	DI Leach	
890-1154-3	FS07	Soluble	Solid	DI Leach	
MB 880-7089/1-A	Method Blank	Soluble	Solid	DI Leach	

### **QC** Association Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

### HPLC/IC (Continued)

#### Leach Batch: 7089 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-7089/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7089/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1150-A-16-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1150-A-16-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
Analysis Batch: 7168					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1154-1	FS06	Soluble	Solid	300.0	7089
890-1154-2	SW14	Soluble	Solid	300.0	7089
890-1154-3	FS07	Soluble	Solid	300.0	7089
MB 880-7089/1-A	Method Blank	Soluble	Solid	300.0	7089
LCS 880-7089/2-A	Lab Control Sample	Soluble	Solid	300.0	7089
LCSD 880-7089/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7089
890-1150-A-16-D MS	Matrix Spike	Soluble	Solid	300.0	7089
890-1150-A-16-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	7089

#### Job ID: 890-1154-1 SDG: WSPTE012921045

Project/Site: Elk Wallow 11 State #1

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Job ID: 890-1154-1 SDG: WSPTE012921045

### Lab Sample ID: 890-1154-1 Matrix: Solid

Lab Sample ID: 890-1154-2

Lab Sample ID: 890-1154-3

Matrix: Solid

Matrix: Solid

Date Collected: 08/23/21 09:50 Date Received: 08/25/21 08:03

**Client Sample ID: FS06** 

Client: WSP USA Inc.

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7083	08/25/21 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	7093	08/26/21 12:13	MR	XEN MID
Total/NA	Prep	8015NM Prep			7068	08/25/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7036	08/26/21 04:49	AJ	XEN MID
Soluble	Leach	DI Leach			7089	08/25/21 18:14	SC	XEN MID
Soluble	Analysis	300.0		1	7168	08/27/21 19:29	SC	XEN MID

#### Client Sample ID: SW14 Date Collected: 08/23/21 13:50 Date Received: 08/25/21 08:03

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7083	08/25/21 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	7093	08/26/21 12:34	MR	XEN MID
Total/NA	Prep	8015NM Prep			7068	08/25/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7036	08/26/21 05:10	AJ	XEN MID
Soluble	Leach	DI Leach			7089	08/25/21 18:14	SC	XEN MID
Soluble	Analysis	300.0		1	7168	08/27/21 19:34	SC	XEN MID

#### Client Sample ID: FS07 Date Collected: 08/23/21 14:00

### Date Received: 08/25/21 08:03

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7083	08/25/21 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	7093	08/26/21 12:54	MR	XEN MID
Total/NA	Prep	8015NM Prep			7068	08/25/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7036	08/26/21 05:31	AJ	XEN MID
Soluble	Leach	DI Leach			7089	08/25/21 18:14	SC	XEN MID
Soluble	Analysis	300.0		10	7168	08/27/21 19:40	SC	XEN MID

#### Laboratory References:

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

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### Accreditation/Certification Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1154-1 SDG: WSPTE012921045

#### Laboratory: Eurofins Xenco, Midland

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

thority	Pr	ogram	Identification Number	Expiration Date
as	N	ELAP	T104704400-20-21	06-30-22
• ,		ut the laboratory is not certil	fied by the governing authority. This list ma	ay include analytes for v
the agency does not o		Matrix	Analyte	
Analysis Method 8015B NM	ter certification. Prep Method 8015NM Prep	Matrix Solid	Analyte Total TPH	

### **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1154-1 SDG: WSPTE012921045

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

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

### Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1154-1 SDG: WSPTE012921045

Depth	Received	Collected	Matrix	Client Sample ID	Lab Sample ID
 12	08/25/21 08:03	08/23/21 09:50	Solid	FS06	890-1154-1
0 - 10	08/25/21 08:03	08/23/21 13:50	Solid	SW14	390-1154-2
12	08/25/21 08:03	08/23/21 14:00	Solid	FS07	390-1154-3

Intervin         Sampled         <	Project Manager: Da Company Name: W Address: 33 City, State ZIP: Mi Project Name: 9 Project Number: 4 Project Number: 4 Project Number: 4 Sampler's Name: 4 Temperature (°C): Received Intact: Cooler Custody Seals: 5 Sample Custody Seals: 5		orrection		Imber of Containers         O         P:         m         R         AZ (440)         D<	H (EPA 8015) EX (EPA 0=8021) H (EPA 0=8021) H (EPA 0=8021) A as. TX (214) Paso. TX (9: p. com p. com p. com	EX (EPA 0=8021)	loride (EPA 300.0)	Immoder of Containers         Chain of Custody           EL Paso.TX (214) 902-0300 San Antonio.T         EL Paso.TX (915)585-3443 Lubbock.T           Kyle Littrell         XTO Energy           522 W. Mermod St.         Carlsbad, NM 88220           Ioride (EPA 300.0)         All		(210) 509-3334 306)794-1296 Tampa_FL (813-620-2000) W Program: UST/PST State of Project: State of Project: Deliverables: EDD B90-1154 Chain of Custody B90-1154 Chain of Custody
Impany Name:     WSP USA     Company Name:     XTO Energy       dress:     3300 North A Street     Address:     522 W. Mermod St.       ore:     4321 236-3849     Email Alexis Castro     City, State ZIP:     Caribad, MM 86220       ore:     4321 236-3849     Email Alexis Castro     Due Date       mperature (*C):     41/2021     Rush:     Rush:       mperature (*C):     41/2021     Rush:     Castro     Melandi St.       ceived Intac::     440 ress:     Castro     Due Date       amperature (*C):     41/2021     Rush:     Conrection Foreit     Advess:       ceived Intac::     Yes No     Toval Control Rector     A     A       sample Identification     Matrix     Sampled     Sampled     Sampled     Depth       ssample Identification     Matrix     Sampled     Sampled     Depth     Perter       ssample Identification     Matrix     Sampled     Sampled     Depth     Perter     Nu       ssample Identification     Matrix     Sampled     Sampled     Sampled     Sampled     Sampled     Sampled     Depth       start     Sampled     Sampled     Sampled     Sampled     Sampled     Sample Identification     Na     Na     X     X <t< th=""><th></th><th>an Moir</th><th></th><th>Bill to: (if different</th><th>ant)</th><th>Kyle Litt</th><th>rell</th><th></th><th></th><th></th><th></th></t<>		an Moir		Bill to: (if different	ant)	Kyle Litt	rell				
Indiand         Street         Address:         S2W Memod St.           Sy, Stale ZIP:         Midland, TX 79705         City, Stale ZIP:         Carisbad, NM 88220           'none:         432) 236-3849         Email Alexis Castro@wsp.com         Carisbad, NM 88220           'none:         412) 236-3849         Email Alexis Castro@wsp.com         Carisbad, NM 88220           'none:         412) 236-3849         Email Alexis Castro@wsp.com         Carisbad, NM 88220           'opect Number:         Alexis Castro         Due Date         Carisbad, NM 88220           'sopect Number:         Alexis Castro         Due Date         Carisbad, NM 88220           'sopect Number:         Alexis Castro         Due Date         Carisbad, NM 88220           'sopect View No         Mark         Sampled Sastro         Due Date         Carisbad, NM 88220           'sopect View No         Mark         Sampled Castrody Seals:         Yes No         Total Containers:         Sampled Castrody Seals:         Sampled Castrody Seals:         Yes No         Mark         Sampled Castrody Seals:         Sampled Samuel Seals Se		SP USA		Company Na		KTO En	ergy		1		
Dy. State ZIP.     Midland, TX 79705     Carlsbad, NM 68220       hone:     (432) 236-3849     Email Alexis Castro @wsp.com       roject Name:     Elk Wallow 11 State #1     Turn Around       roject Name:     Alexis Castro     Routine       SAMPLE RECEIPT     Temp Bank     Gin No     No       remperature (*C):     4/1/2021     Rush:     Rush:       Concercion Name:     4/1/2021     Rush:       Sample Custody Seals:     Yes     No     Total Containers:       Sample Custody Seals:     Yes     No     Marrix       FS06     S     8/23/2021     /9/50     12     1     x     x       FS07     S     8/23/2021     /9/50     12     1     x     x     x       FS07     S     8/23/2021     /9/50     12     1     x     x     x       Total 200.7/6010     200.8/6020:     BTEX (EPA 0=8010:     BTEX (EPA 0=8021)     X<		00 North A Street		Address:		522 W.	Mermo	d St.			
Phone:     [432] 236-3849     Email: Alexis Castro@wsp.com       Project Name:     Elk Wallow 11 State #1     Turn Around       Project Name:     Alexis Castro     Routine       SAMPLE RECEIPT     Temp Bank:     (G) No     No       Concercusody Seals:     Yes. No     No     Total Containers:       Sample dustidy Seals:     Yes. No     Mix     Correction Factor     Depth       Sample dustidy Seals:     Yes. No     Mix     Correction Factor     Depth       Sample dustidy Seals:     Yes. No     Mix     Correction Factor     Depth       Sample dustidy Seals:     Yes. No     Mix     Correction Factor     D.       Sample dustidy Seals:     Yes. No     Mix     Correction Factor     D.       Sample dustidy Seals:     Yes. No     Matrix     Sampled     Barpied       Sample dustidy Seals:     Yes. No     Mix     Correction Factor     D.       Sample dustidy Seals:     Yes. No     Matrix     Sampled     Bepth       FS06     S     8/23/2021     1/2,50     0-10     1     x     x       FS07     S     6/23/2021     1/4,00     1     x     x     x       FS07     S     6/23/2021     1/4,00     1     x     x     x </td <td></td> <td>dland, TX 79705</td> <td></td> <td>City, State ZI</td> <td></td> <td>Carlsba</td> <td>d, NM 8</td> <td>8220</td> <td></td> <td></td> <td></td>		dland, TX 79705		City, State ZI		Carlsba	d, NM 8	8220			
Project Name:       Elk Wallow 11 State #1       Turn Around         Project Number:       WSPTE012921045       Routine       Rush:         ampler's Name:       Alexis Castro       Due Date         Sampler's Name:       Alexis Castro       Use Date         Conder Custody Seals:       Yes No       Total Containers       Correction Factor:         Sample Identification       Martix       Sampled       Sampled       Sampled         FS06       S       8/23/2021       1/250       12       1       x       x         Sample Custody Seals:       Yes No       Martix       Sampled       Sampled       Depth       Total Containers		32) 236-3849		Email: Alexis.Cast	ism@o.	o.com					
roject Number:       WSPTE012921045       Routine       Rush:         ampler's Name:       Alaxis Castro       Due Date         SAMPLE RECEIPT       Temp Blank:       (S) No       Wet Ice:       (C)         ceneved Intact:       Yes       No       Total Containers       Themometer ID         ample Custody Seals:       Yes       No       Total Containers       Correction Factor:       -O.         ample Custody Seals:       Yes       No       Mark       Sampled       Dete       Time         Sample Identification       Matrix       Sampled       Sampled       Sampled       Depth       Depth         science Custody Seals:       Yes       No       Mark       Sampled       Depth       Depth         science Custody Seals:       Yes       No       Mark       Sampled       Depth       Depth         science Custody Seals:       Yes       No       Mark       Sampled       Depth       Depth         science Custody Seals:       Yes       No       Mark       Sampled       Depth       Depth         science Custody Seals:       Yes       No       Mark       Sampled       Depth       Depth         Total 200.71 6010       20.8 (6020:       Sampl	Project Name:	Elk Wallow 11	State #1	Turn Around					~	1Ź	ALYSIS RE
.0. Number:       41/12021       Rush:         ampler's Name:       Alexis Castro       Due Date         SAMPLE RECEIPT       Temp Blank:       (5) No       Wet Ice:       (5) No         'ecnived Intact:       Ves       No       TE AMAGE       (5) No       Wet Ice:       (5) No         'ecnived Intact:       Ves       No       TE AMAGE       Correction Factor:       -0007         'sample Custody Seals:       Ves       No       TE AMAGE       -0007       -0007         'sample Custody Seals:       Ves       No       Ves       Out AMAGE       -0007         'sample Custody Seals:       Ves       No       TE AMAGE       -0007       -0007         'sample Custody Seals:       Ves       No       No       TE AMAGE       -0007         'sample Custody Seals:       Ves       No       No       -0007       -0007         'sample duption       S       81/33/2021       1/950       12       1       Number of Containers         'sample custody Seals:       S       81/33/2021       1/4000       1       x       x         'sample duption of the obset of samples duption on tampes of samples and the obset	Project Number:	WSPTE012		Routine		_					_
amplier's Name:       Alexis Castro       Due Date         SAMPLE RECEIPT       Tenm Blank:       (6)       Wet Ice:       (6)         'ecoved Intact:       Use No       Temmoneter ID       Thermoneter ID         'ample Custody Seals:       Yes No       W/X       Correction Factor:       -2         'ample Custody Seals:       Yes No       W/X       Correction Factor:       -2         'sample Custody Seals:       Yes No       W/X       Correction Factor:       -2         'sample Custody Seals:       Yes No       W/X       Correction Factor:       -2         'sample duentification       Matrix       Sampled       Sampled       Sampled       Sampled         'sample duentification       Matrix       Sampled       Sampled       Depth       Number of Containers         'sample custody Seals:       Yes No       N/A       Sampled       Sampled       Depth       Number of Containers         'sample custody Seals:       S       8/23/2021       1/4,000       12       1       x       x         'samola       S       8/23/2021       1/4,000       12       1       x       x       x         'samola       Samola       Broot       Samola       Broot <t< td=""><td>P.O. Number:</td><td>4/1/202</td><td></td><td>Rush:</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td></t<>	P.O. Number:	4/1/202		Rush:				-			-
SAMPLE RECEIPT       Temp Blank:       (c) No       Wet Lee:       (c) No         energerature (°C):       12       14.0       Themmenter ID         cooler Custody Seals:       Yes       No       Total Containers:       3         ample Custody Seals:       Yes       No       Total Containers:       3         Sample Custody Seals:       Yes       No       Total Containers:       3         F 506       S       8/23/2021       0/4.0       12       1       x         F 507       S       8/23/2021       0/4.00       12       1       x       x         F 507       S       8/23/2021       1/4.00       12       1       x       x       x         Gride Method(s) and Metal(s) to be analyzed       RCRA 13PPM       ToLP / SPL 6010:       8/23/2021       1/4.00       1       x       x       x         Chick Method(s) and Metal(s) to be analyzed       TCLP / SPL 6010:       8/23/2021       1       x	Sampler's Name:	Alexis Ca	stro	Due Date			-	-			
emperature (°C):       UC       Thermometer ID         accelved Intact:       Ves       No       Total Containers:       2         ample Custody Seals:       Yes       No       Total Containers:       2         ample Custody Seals:       Yes       No       Total Containers:       2         ample Custody Seals:       Yes       No       Matrix       Sampled       Sampled       Sampled       Depth         Sample Custody Seals:       Yes       No       Matrix       Sampled       Sampled       Depth       Depth       Depth         Sample Custody Seals:       Yes       No       Matrix       Sampled       Sampled       Sampled       Depth       Depth       Depth       No       Total Containers:       3       Sampled       Sampled       Sampled       Sampled       Sampled       Depth       No       Total Containers:       3       Sampled	SAMPLE RECEIP		No	(feg	s			-			
Received Intact:       Care of the No       T- Are of the Origin Factor:	Temperature (°C):	57	Thermo	ometer ID	ine		_	u) 			
Concercustody Seals:       Yes       No       With       Correction Factor:       Total Containers:       Z         Sample Custody Seals:       Yes       No       With       Total Containers:       Z       Got         Sample Identification       Matrix       Sampled       Sampled       Depth       Depth       Depth       Pepth         SW14       S       8/23/2021       1/9.50       12       1       x       x       x         FS07       S       8/23/2021       1.9.50       0-10       1       x       <	Received Intact:	7	2	207	onta	)		300.			890-1104
Total Containers: 3         Sample Identification       Matrix       Date Sampled       Time Sampled       Depth Sampled       Depth Sampled       Depth Depth       Depth Sampled       Depth Depth       Depth Sampled       Depth Depth       Depth Sampled       Sampled       Depth Sampled       Sampled       Depth Sampled       Sampled       Depth Sampled       Sampled       Depth Sampled       Sampled       Depth Sampled       Sampled       <	Cooler Custody Seals:	No	Correction F	1	of Co	8015		=PA			
Sample Identification     Matrix     Date Sampled     Time Sampled     Depth     Image: Sampled       FS06     S     8/23/2021     13,50     0-10     1     x     x       FS07     S     8/23/2021     13,50     0-10     1     x     x     x       FS07     S     8/23/2021     14,00     12     1     x     x     x       FS07     S     8/23/2021     14,00     12     1     x     x     x       FS07     S     8/23/2021     14,00     12     1     x     x     x       FS07     S     8/23/2021     14,00     12     1     x     x     x       FS07     S     8/23/2021     14,00     12     1     x     x     x       FS07     S     8/23/2021     14,00     12     1     x     x     x       Circle Method(s) and Metal(s) to be analyzed     RCRA     13PPM     Texas 11     Al Sb As Ba Be Bc Cd       Circle Method(s) and Metal(s) to be analyzed     TCLP / SPL 6010:     8RCRA     Sb As Ba Be Cd       Service. A minimum charge of \$7.00 will be applied to each project and a charge of \$16 reach samples sincurred by     Cate/Time       Wh     No     No     Date/Time	Sample Custody Seals.	No		11	ber	EPA		de (			
FS06         S         8/23/2021         0.950         12         1         x         x         x           S07         S         8/23/2021         1,400         12         1         x         x         x           FS07         S         8/23/2021         1,400         12         1         x         x         x           FS07         S         8/23/2021         1,400         12         1         x         x         x           FS07         S         8/23/2021         1,400         12         1         x	Sample Identifi				Numb	TPH (E		Chiori			
SW14     S     8/23/2021     13.50     0-10     1     x     x       FS07     S     8/23/2021     1.400     12     1     x     x       For     S     00.8     6020     8RCRA     13PPM     Texas 11     Al Sb     As Ba Be C       Cricle Method(s) and Metal(s) to be analyzed     TCLP / SPLP 6010:     8RCRA     Sb As Ba Be Cd       Cline- Signature of this boomment and rempulsionean of samples constitutes a valid pulchase order from client company to Anico, its affinited to Anico, its affinited to Anico, its	FS		-		_	×	×	×		$\vdash$	
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8/30/2021

Job Number: 890-1154-1 SDG Number: WSPTE012921045

List Source: Eurofins Xenco, Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1154 List Number: 1

Creator: Clifton, Cloe

<6mm (1/4").

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

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#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1154 List Number: 2 Creator: Kramer, Jessica Job Number: 890-1154-1

SDG Number: WSPTE012921045

List Source: Eurofins Xenco, Midland List Creation: 08/25/21 01:37 PM

Cleator. Mamer, Jessica		
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	2.3/2.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Received by OCD: 11/4/2021 2:30:53 PM

# eurofins

## Environment Testing America

## **ANALYTICAL REPORT**

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

### Laboratory Job ID: 890-1211-1

Laboratory Sample Delivery Group: TE012921045 Client Project/Site: Elk Wallow 11 State #1

### For:

WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, Texas 75207

Attn: Dan Moir

RAMER

Authorized for release by: 9/3/2021 6:28:07 PM

Jessica Kramer, Project Manager (432)704-5440 jessica.kramer@eurofinset.com

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

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

LINKS **Review your project** results through **Total** Access **Have a Question?** Ask-The Expert Visit us at:

www.eurofinsus.com/Env Released to Imaging: 2/8/2022 3:41:54 PM

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Laboratory Job ID: 890-1211-1 SDG: TE012921045

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### **Definitions/Glossary**

Client: WSP USA Inc.
Project/Site: Elk Wallow 11 State #1

Job ID: 890-1211-1 SDG: TE012921045

		3DG. TE012921045	
Qualifiers			3
GC VOA			
Qualifier	Qualifier Description		
F1 U	MS and/or MSD recovery exceeds control limits.		
	Indicates the analyte was analyzed for but not detected.		5
GC Semi VOA	-		
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC			
Qualifier	Qualifier Description		
U	Indicates the analyte was analyzed for but not detected.		8
Glossary			9
Abbreviation	These commonly used abbreviations may or may not be present in this report.		
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		
CFL	Contains Free Liquid		
CFU	Colony Forming Unit		
CNF	Contains No Free Liquid		
DER	Duplicate Error Ratio (normalized absolute difference)		
Dil Fac	Dilution Factor		4.9
DL	Detection Limit (DoD/DOE)		13
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)		

EDI 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 Not Calculated NC

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)

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

Project/Site: Elk Wallow 11 State #1

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Job ID: 890-1211-1 SDG: TE012921045

#### Job ID: 890-1211-1

Client: WSP USA Inc.

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-1211-1

#### Receipt

The sample was received on 9/2/2021 12:58 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 12.2°C

#### GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7477 and analytical batch 880-7486 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### GC Semi VOA

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

#### HPLC/IC

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

### **Client Sample Results**

RL

0.00201

0.00201

0.00201

0.00402

0.00201

0.00402

0.00402

Limits

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

09/03/21 09:33

09/03/21 09:33

09/03/21 09:33

09/03/21 09:33

09/03/21 09:33

09/03/21 09:33

09/03/21 09:33

Prepared

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Method: 8021B - Volatile Organic Compounds (GC)

### **Client Sample ID: FS05**

Date Collected: 09/02/21 09:50 Date Received: 09/02/21 12:58

Sample Depth: 12

Analyte

Benzene

Toluene

o-Xylene

Ethylbenzene

Xylenes, Total

Total BTEX

Surrogate

Chloride

m-Xylene & p-Xylene

Job ID: 890-1211-1 SDG: TE012921045

### Lab Sample ID: 890-1211-1

Analyzed

09/03/21 13:13

09/03/21 13:13

09/03/21 13:13

09/03/21 13:13

09/03/21 13:13

09/03/21 13:13

09/03/21 13:13

Analyzed

09/03/21 13:13

09/03/21 13:13

Analyzed

09/03/21 12:19

09/03/21 16:46

Matrix: Solid

6 7 °	5
7	
0	
0	8

1 Dil Fac 1

Dil Fac

1

1

1

1

1

'	
1	
Dil Fac	
1	
1	13

1

09/03/21 09:33 4-Bromofluorobenzene (Surr) 70 - 130 113 104 70 - 130 09/03/21 09:33 1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Range Organics (DRO) (GC) RL Analyte Result Qualifier Unit D Prepared <50.0 U 09/03/21 11:10 Gasoline Range Organics 50.0 mg/Kg

Qualifier

Result Qualifier

<0.00201 U F1

<0.00201 UF1

<0.00201 UF1

<0.00402 UF1

<0.00201 UF1

<0.00402 UF1

<0.00402 UF1

327

%Recovery

Analyte	Result Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Method: 300.0 - Anions, Ion Chr	omatography - Soluble					
o-Terphenyl	109	70 - 130		09/03/21 11:10	09/03/21 12:19	1
1-Chlorooctane	100	70 - 130		09/03/21 11:10	09/03/21 12:19	1
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
Total TPH	50.7	50.0	mg/Kg	09/03/21 11:10	09/03/21 12:19	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0 U	50.0	mg/Kg	09/03/21 11:10	09/03/21 12:19	1
(GRO)-C6-C10 Diesel Range Organics (Over	50.7	50.0	mg/Kg	09/03/21 11:10	09/03/21 12:19	1
			0 0			

5.05

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

_				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-1211-1	FS05	113	104		
890-1211-1 MS	FS05	101	108		
890-1211-1 MSD	FS05	111	109		
LCS 880-7477/1-A	Lab Control Sample	111	93		
LCSD 880-7477/2-A	Lab Control Sample Dup	111	106		
MB 880-7477/5-A	Method Blank	102	100		
Surrogate Legend					
BFB = 4-Bromofluorobe	nzene (Surr)				

DFBZ = 1,4-Difluorobenzene (Surr)

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

			Prep Type: Total/NA	
	4004	OTDUA	Percent Surrogate Recovery (Acceptance Limits)	
Client Sample ID				
FS05	100	109		
FS05	101	99		
FS05	103	100		
Lab Control Sample	121	121		
Lab Control Sample Dup	121	119		
Method Blank	105	117		
	FS05 FS05 Lab Control Sample Lab Control Sample Dup	FS05         100           FS05         101           FS05         103           Lab Control Sample         121           Lab Control Sample Dup         121	Client Sample ID         (70-130)         (70-130)           FS05         100         109           FS05         101         99           FS05         103         100           Lab Control Sample         121         121           Lab Control Sample Dup         121         119	Client Sample ID         (70-130)         (70-130)         (70-130)           FS05         100         109

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Job ID: 890-1211-1

SDG: TE012921045

Prep Type: Total/NA

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### **QC Sample Results**

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

### Lab Sample ID: MB 880-7477/5-A

Matrix: Solid Analysis Batch: 7486

Analysis Batch: 7486							Prep Bato	n: 7477
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		09/03/21 09:33	09/03/21 12:52	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			09/03/21 09:33	09/03/21 12:52	1
1,4-Difluorobenzene (Surr)	100		70 - 130			09/03/21 09:33	09/03/21 12:52	1

#### Lab Sample ID: LCS 880-7477/1-A Matrix: Solid

#### Analysis Batch: 7486

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.07447		mg/Kg		74	70 - 130	
Toluene	0.100	0.07554		mg/Kg		76	70 - 130	
Ethylbenzene	0.100	0.07775		mg/Kg		78	70 - 130	
m-Xylene & p-Xylene	0.200	0.1583		mg/Kg		79	70 _ 130	
o-Xylene	0.100	0.08045		mg/Kg		80	70 _ 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

#### Lab Sample ID: LCSD 880-7477/2-A Matrix: Solid

Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 7486									Pre	p Batch	: 7477
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.100	0.08330		mg/Kg		83	70 - 130	11	35
Toluene			0.100	0.08122		mg/Kg		81	70 - 130	7	35
Ethylbenzene			0.100	0.08397		mg/Kg		84	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1705		mg/Kg		85	70 - 130	7	35
o-Xylene			0.100	0.08705		mg/Kg		87	70 - 130	8	35
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1 4-Difluorobenzene (Surr)	106		70 - 130								

	100		70 - 730							
Lab Sample ID: 890-1211-1 MS									Client Sam	ple ID: FS05
Matrix: Solid									Prep Ty	/pe: Total/NA
Analysis Batch: 7486									Prep	Batch: 7477
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1	0.100	0.04711	F1	mg/Kg		47	70 _ 130	

Client Sample ID: Lab Control Sample Dup

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6 7

Released to Imaging: 2/8/2022 3:41:54 PM

### **QC Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

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

Job ID: 890-1211-1 SDG: TE012921045
Client Sample ID: FS05
Prep Type: Total/NA

%Rec.

#### Lab Sample ID: 890-1211-1 MS Matrix: Solid Analysis Batch: 7486 Sample Sample

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00201	U F1	0.100	0.03113	F1	mg/Kg		31	70 - 130	
Ethylbenzene	<0.00201	U F1	0.100	0.02073	F1	mg/Kg		21	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.04030	F1	mg/Kg		20	70 - 130	
o-Xylene	<0.00201	U F1	0.100	0.02125	F1	mg/Kg		21	70 - 130	

MS MS

Spike

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

#### Lab Sample ID: 890-1211-1 MSD Matrix: Solid

Analysis Batch: 7486										p Batch:	: 7477
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U F1	0.101	0.04123	F1	mg/Kg		41	70 - 130	13	35
Toluene	<0.00201	U F1	0.101	0.03176	F1	mg/Kg		31	70 - 130	2	35
Ethylbenzene	<0.00201	U F1	0.101	0.01699	F1	mg/Kg		17	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U F1	0.202	0.03229	F1	mg/Kg		16	70 - 130	22	35
o-Xylene	<0.00201	U F1	0.101	0.01492	F1	mg/Kg		15	70 - 130	35	35
	MSD	MSD									

	1/130	WSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

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

Lab Sample ID: MB 880-7495/1-A Matrix: Solid Analysis Batch: 7482							Client	Sample ID: Metho Prep Type: <sup>2</sup> Prep Bate	Total/NA
	MB	МВ							
Analyte	Result	Qualifier	RL		Unit		D Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/K	g	09/03/21 11:	09/03/21 11:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/K	9	09/03/21 11:	10 09/03/21 11:16	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/K	g	09/03/21 11:	10 09/03/21 11:16	1
Total TPH	<50.0	U	50.0		mg/K	9	09/03/21 11:	10 09/03/21 11:16	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 _ 130				09/03/21 11:	10 09/03/21 11:16	1
o-Terphenyl	117		70 - 130				09/03/21 11:	10 09/03/21 11:16	1
Lab Sample ID: LCS 880-7495/2-A							Client Samp	le ID: Lab Control	Sample
Matrix: Solid								Prep Type:	Total/NA
Analysis Batch: 7482								Prep Bat	ch: 7495
			Spike	LCS	LCS			%Rec.	
Analyte			Added	Result	Qualifier	Unit	D %Rec	Limits	

70 - 130

102

Prep Batch: 7477

Client Sample ID: FS05

Prep Type: Total/NA

Gasoline Range Organics

(GRO)-C6-C10

1025

mg/Kg

### **QC Sample Results**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

SDG: TE012921045

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

Lab Sample ID: LCS 880-7495/2	2-A						Clien	t Sample	e ID: Lab Co	ontrol Sa	ample
Matrix: Solid									Prep 1	ype: Tot	tal/NA
Analysis Batch: 7482									Pre	p Batch:	: 7495
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	1002		mg/Kg		100	70 - 130		
	105	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane	121	Quaimer	70 - 130								
	121		70 - 130 70 - 130								
o-Terphenyl	121		70 - 730								
Lab Sample ID: LCSD 880-7495	/3-A					Clie	ent San	nple ID:	Lab Contro	Sample	e Dup
Matrix: Solid										ype: Tot	
Analysis Batch: 7482										p Batch:	
· · · · · <b>,</b> · · · · · · · · · · · · · · · · · · ·			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	1020		mg/Kg		102	70 - 130		20
(GRO)-C6-C10						5.5				-	
Diesel Range Organics (Over C10-C28)			1000	977.2		mg/Kg		98	70 - 130	3	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	121		70 - 130								
o-Terphenyl	119		70 - 130								
Lab Sample ID: 890-1211-1 MS Matrix: Solid									Client Sa	mple ID: ype: Tot	
Analysis Batch: 7482										p Batch:	
Analysis Batch. 1402	Sample	Sample	Spike	MS	MS				%Rec.	p Batch	. 7493
Analyta		Qualifier				Unit	D	% Baa	Limits		
Analyte Gasoline Range Organics	<50.0		Added	940.1	Qualifier	mg/Kg	<u></u>	%Rec 93	70 - 130		
(GRO)-C6-C10	<50.0	0	990	340.1		iiig/itg		90	70 - 150		
Diesel Range Organics (Over C10-C28)	50.7		995	924.2		mg/Kg		88	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	101		70 - 130								
o-Terphenyl	99		70 - 130								
Lab Sample ID: 890-1211-1 MSI	D								Client Sa	mple ID:	FS0
Matrix: Solid										ype: Tot	
Analysis Batch: 7482										p Batch:	
· · · · · · · · · · · · · · · · · · ·	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Gasoline Range Organics	<50.0		998	974.1		mg/Kg		96	70 - 130	4	20
(GRO)-C6-C10				<b>.</b>						-	20
Diesel Range Organics (Over	50.7		998	948.3		mg/Kg		90	70 - 130	3	20
C10-C28)											
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	103		70 - 130								
o-Terphenyl	100		70 - 130								

Client: WSP USA Inc.

### **QC Sample Results**

Job ID: 890-1211-1 SDG: TE012921045

Project/Site: Elk Wallow 11 State #1

Method: 300.0 - Anions,	Ion Chromatography
-------------------------	--------------------

Lab Sample ID: MB 880-7498/1-A											Client 6	Sample ID:	Mothod	Plank
Matrix: Solid											shent c	-		
												Frep	Type: S	oluble
Analysis Batch: 7500														
	_		MB						_	_			_	
Analyte			Qualifier		RL		Uni	-	<u>D</u>	Pre	epared	Analy		Dil Fac
Chloride	<	\$.00	U		5.00		mg/	′Kg				09/03/21	16:29	1
Lab Sample ID: LCS 880-7498/2-A									Clie	ent S	Sample	D: Lab C	ontrol S	ample
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 7500														
-				Spike		LCS	LCS					%Rec.		
Analyte				Added		Result	Qualifier	Unit		D	%Rec	Limits		
Chloride				250		249.9		mg/Kg			100	90 - 110	·	
Lab Sample ID: LCSD 880-7498/3-A								CI	iont S	amr	יםו פור	Lab Contro	ol Samn	le Dun
Matrix: Solid								01		unip	Sic ib.		o Type: S	
Analysis Batch: 7500												Tich	, type. o	oluble
Analysis Baten. 7000				Spike		LCSD	LCSD					%Rec.		RPD
Analyte				Added		Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride				250		250.7		mg/Kg			100	90 - 110	0	20
Lab Sample ID: 890-1211-1 MS												Client Sa	ample ID	: ES05
Matrix: Solid													Type: S	
Analysis Batch: 7500														
· · · · · · · · · · · · · · · · · · ·	Sample	Sam	ple	Spike		MS	MS					%Rec.		
Analyte	Result	Qual	ifier	Added		Result	Qualifier	Unit		D	%Rec	Limits		
Chloride	327			253		568.1		mg/Kg			95	90 - 110		
Lab Sample ID: 890-1211-1 MSD												Client Sa	mnlo ID	· ES05
Matrix: Solid													Type: S	
Analysis Batch: 7500												Fieh	, iyhe. a	oluble
Analysis Daton. 1000	Sample	Sami	ple	Spike		MSD	MSD					%Rec.		RPD
Analyte	Result		•	Added			Qualifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride	327	audi		253		568.8		mg/Kg			96	90 - 110	0	20
	521			200		500.0		mg/itg			50	30 - 110	0	20

### **QC Association Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

4 5

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#### Job ID: 890-1211-1 SDG: TE012921045

### GC VOA

#### Prep Batch: 7477

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-1211-1	FS05	Total/NA	Solid	5035	
MB 880-7477/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7477/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7477/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1211-1 MS	FS05	Total/NA	Solid	5035	
890-1211-1 MSD	FS05	Total/NA	Solid	5035	
analysis Batch: 7486					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch

		Fiep Type	Watrix	wiethod	Ртер Басси
890-1211-1	FS05	Total/NA	Solid	8021B	7477
MB 880-7477/5-A	Method Blank	Total/NA	Solid	8021B	7477
LCS 880-7477/1-A	Lab Control Sample	Total/NA	Solid	8021B	7477
LCSD 880-7477/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7477
890-1211-1 MS	FS05	Total/NA	Solid	8021B	7477
890-1211-1 MSD	FS05	Total/NA	Solid	8021B	7477

#### GC Semi VOA

#### Analysis Batch: 7482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1211-1	FS05	Total/NA	Solid	8015B NM	7495
MB 880-7495/1-A	Method Blank	Total/NA	Solid	8015B NM	7495
LCS 880-7495/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7495
LCSD 880-7495/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7495
890-1211-1 MS	FS05	Total/NA	Solid	8015B NM	7495
890-1211-1 MSD	FS05	Total/NA	Solid	8015B NM	7495

#### Prep Batch: 7495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1211-1	FS05	Total/NA	Solid	8015NM Prep	
MB 880-7495/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7495/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7495/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1211-1 MS	FS05	Total/NA	Solid	8015NM Prep	
890-1211-1 MSD	FS05	Total/NA	Solid	8015NM Prep	

#### HPLC/IC

#### Leach Batch: 7498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1211-1	FS05	Soluble	Solid	DI Leach	
MB 880-7498/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7498/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7498/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1211-1 MS	FS05	Soluble	Solid	DI Leach	
890-1211-1 MSD	FS05	Soluble	Solid	DI Leach	
Analysis Batch: 7500					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1211-1	FS05	Soluble	Solid	300.0	7498
MB 880-7498/1-A	Method Blank	Soluble	Solid	300.0	7498
LCS 880-7498/2-A	Lab Control Sample	Soluble	Solid	300.0	7498

### **QC** Association Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1211-1 SDG: TE012921045

### HPLC/IC (Continued)

#### Analysis Batch: 7500 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-7498/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7498
890-1211-1 MS	FS05	Soluble	Solid	300.0	7498
890-1211-1 MSD	FS05	Soluble	Solid	300.0	7498

Job ID: 890-1211-1

SDG: TE012921045

### Lab Chronicle

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

### Client Sample ID: FS05

Date Collected: 09/02/21 09:50 Date Received: 09/02/21 12:58

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7477	09/03/21 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	7486	09/03/21 13:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			7495	09/03/21 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7482	09/03/21 12:19	AJ	XEN MID
Soluble	Leach	DI Leach			7498	09/03/21 11:32	SC	XEN MID
Soluble	Analysis	300.0		1	7500	09/03/21 16:46	SC	XEN MID

#### Laboratory References:

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

Eurofins Xenco, Carlsbad

Lab Sample ID: 890-1211-1 Matrix: Solid

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Job ID: 890-1211-1

SDG: TE012921045

### Accreditation/Certification Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1

Laboratory: Eurofins Xenco, Midland

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

thority	Pr	ogram	Identification Number	Expiration Date
exas		ELAP	T104704400-20-21	06-30-22
The following analytes	are included in this report. Du	il line iaporalory is not certii	fied by the governing authority. This list ma	av include analytes for
the agency does not or Analysis Method	•	Matrix	Analyte	.,
the agency does not o	fer certification.		, , , , ,	

### **Method Summary**

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1211-1 SDG: TE012921045

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

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

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11	
12	
13	

### Sample Summary

Client: WSP USA Inc. Project/Site: Elk Wallow 11 State #1 Job ID: 890-1211-1 SDG: TE012921045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1211-1	FS05	Solid	09/02/21 09:50	09/02/21 12:58		4
						5
						8
						9
						12
						13

### Received by OCD: 11/4/2021 2:30:53 PM



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Carlsb	5
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	9



seurofins Environment Testing America

COC No 890-390 1

Preservation Codes 890-1211-1 Job #: Page 1 of 1 age

1089 N Canal St Carlsbad NM 86220 Phone 575-988-3199 Fax 575-988-3199	Chain of Custody Record	Record	
	Sampler Lab PM	PM	Carrier Tracking No(s)
Client Information (Sub Contract Lab)		Kramer Jessica	
Dient Contact:	Phone: E-Mail:	Bil	State of Origin
Shipping/Receiving	jess	jessica kramer@eurofinset.com	New Mexico
Company <sup>,</sup>		Accreditations Required (See note):	
Eurofins Xenco		NELAP - Louisiana, NELAP - Texas	S
Address	Due Date Requested		
1211 W Flonda Ave	9/3/2021	Analysis R	is Requested
Dity .	TAT Requested (days):		
State Zip:		<u></u>	
	30 t.		
432-704-5440(Tel)	, , , , , , , , , , , , , , , , , , ,	TPH	
Email	WO #	) Full	
		No	
roject Name. Elk Wallow 11 State #1	Project # 89000004	es or _S_Pi EACH	
Site	SSOW#	Samp SD (Y D15NM D/DI_L Calc B	
		M /8 28	

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9.2.2

Date/ Date/Time

Time

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Received by:

Company

Date

Time

Special Instructions/QC Requirements

Return To Client

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Disposal By Lab

Archive For

Months

Method of Shipment

J

0.45

XUX

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Date/Time

Company

Received by Received by

Cooler Temperature(s) °C and Other Remarks

G Ý

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Ver 06/08/2021

Date/Time Date/Time 10/ 10/

Company

Custody Seals Intact. ∆ Yes ∆ No

Custody Seal No

Deliverable Requested 1 II III IV Other (specify)

Primary Deliverable Rank 2

Possible Hazard Identification

nconfirmed

Note: Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out 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 Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC aboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC aboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC aboratory or other instructions will be provided.

Sample Identification - Client ID (Lab ID)

Sample Date

Sample Time

(C=comp, G=grab)

Preservation Code:

Solid

×

×

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Special Instructions/Note:

BT=Tissue, A=Ai

Sample

Matrix

Type

(W=water S=solid O=waste/oll,

**Field Filtere** Perform MS

8015MOD\_NN

300\_ORGFM\_

8021B/5035FF

Total Number of containers

A HCL B NaCH C- Zn Acetate D Nitric Acid F MaCH F MaCH G Anchlor G Anchlor G Anchlor H Ascorbic Acid J DI Water K EDTA L EDA

M Hexane O Asone O Asone P Na2O4S P Na2O4S P Na2O5 R Na2SO3 C Na2SO3 R Na2SO3 C Nachone V MCAA V PH 4-5 Z other (specify)

9/2/21

Mountain

09 50

FS05 (890-1211-1)

Job Number: 890-1211-1 SDG Number: TE012921045

List Source: Eurofins Xenco, Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1211 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 True The cooler or samples do not appear to have been compromised or tampered with. 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 True Samples are received within Holding Time (excluding tests with immediate HTs) True Sample containers have legible labels. 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 True There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs N/A

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Eurofins Xenco, Carlsbad Released to Imaging: 2/8/2022 3:41:54 PM

Job Number: 890-1211-1 SDG Number: TE012921045

List Source: Eurofins Xenco, Midland

List Creation: 09/03/21 10:53 AM

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 1211 List Number: 2 Creator: Lowe, Katie

<6mm (1/4").

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

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

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

District III

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

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

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

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	60331
	Action Type:
	[C-141] Release Corrective Action (C-141)
CONDITIONS	

#### Created Condition Condition By Date 2/8/2022 jnobui None

CONDITIONS

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Action 60331