State of New Mexico
Oil Conservation Division

Incident ID	NAPP2034638293
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 03/11/2022

email: adrian.baker@exxonmobil.com Telephone: (432)-236-3808

OCD Only

Received by: Robert Hamlet Date: 4/8/2022

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: Robert Hamlet Date: 4/8/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

Released to Imaging: 4/8/2

Incident ID	NAPP2034638293
District RP	
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Application ID	

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, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.06479 Longitude -103.91825

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Ross Ranch 6	Site Type Battery
Date Release Discovered 11-28-2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
O	6	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 17.41	Volume Recovered (bbls) 10.95
☒ Produced Water	Volume Released (bbls) 221.05	Volume Recovered (bbls) 139.05
	Is the concentration of total dissolved solids (TDS) 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: The supply gas regulator for the heater treater pneumatic dumps malfunctioned. The vessel ran over the top and out of the PRV. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2034638293
District RP	
Facility ID	
Application ID	

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 party consider this a major release? A release equal to or greater than 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Kyle Littrell to 'Bratcher, Mike, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Venegas, Victoria, EMNRD'; 'Griswold, Jim, EMNRD'; 'BLM_NM_CFO_Spill@blm.gov'; 'Morgan, Crisha A' on Saturday, November 28, 2020 2:54 PM via email.

Initial Response

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

- ☒ 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:
NA

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 Supervisor

Signature: Date: 12-10-20

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Date:

Location:	Ross Ranch 6 Battery	
Spill Date:	11/28/2020	

Area 1		
Approximate Area =	17548.00	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.36	bbls
Total Produced Water =	4.53	bbls

Area 2		
Approximate Area =	6065.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.49	bbls
Total Produced Water =	6.26	bbls

Area 3		
Approximate Area =	6901.00	sq. ft.
Average Saturation (or depth) of spill =	5.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	16.56	bbls
Total Produced Water =	210.26	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**17.41**	**bbls**
Total Produced Water =	**221.05**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**10.95**	**bbls**
Total Produced Water =	**139.05**	**bbls**

Incident ID	NAPP2034638293
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2034638293
District RP	
Facility ID	
Application ID	

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

Printed Name: _____Adrian Baker_____ Title: _____Environmental Coordinator_____

Signature: _____ _____ Date: _____01/31/2022_____

Email: _____adrian.baker@exxonmobil.com_____ Telephone: _____432-236-3808_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2034638293
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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Printed Name: Kyle Littrell Title: Environmental Manager

Signature: [signature] Date: 5-25-2021

email: Kyle.Littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: Robert Hamlet Date: 9/8/2021

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Robert Hamlet Date: 9/8/2021

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 29628
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. The variance request for the confirmation samples every 500 ft2 is approved. All contaminated soil must be reclaimed/remediated and removed down to 4 feet below surface or until it meets strictest closure criteria. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 standards of 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg (GRO+DRO) and chlorides to 20,000 mg/kg. If equipment/high pressure pipelines hinder excavation, use a hydrovac to “safely” remove contaminated soil.	9/8/2021

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2034638293
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Closure

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Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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Printed Name: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 03/11/2022

email: adrian.baker@exxonmobil.com Telephone: (432)-236-3808

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

eurofins | Environment Testing America



ANALYTICAL REPORT

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

Laboratory Job ID: 890-1589-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/30/2021 11:50:39 AM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1589-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 13
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Job ID: 890-1589-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1589-1

REVISION

The report being provided is a revision of the original report sent on 11/30/2021. The report (revision 1) is being revised due to Per client email, revised sample IDs.

Report revision history

Receipt
The samples were received on 11/18/2021 8:39 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 5.6°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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Client Sample ID: FS41

Date Collected: 11/15/21 14:00
Date Received: 11/18/21 08:39
Sample Depth: 2

Lab Sample ID: 890-1589-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 15:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 15:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 15:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/19/21 09:30	11/19/21 15:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 15:43	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/19/21 09:30	11/19/21 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*11/19/21 09:30*	*11/19/21 15:43*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/19/21 09:30*	*11/19/21 15:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 19:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 19:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*11/19/21 09:12*	*11/19/21 19:05*	*1*
o-Terphenyl	*119*		*70 - 130*	*11/19/21 09:12*	*11/19/21 19:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.9**		5.00		mg/Kg			11/29/21 17:09	1

Client Sample ID: FS42

Date Collected: 11/15/21 14:00
Date Received: 11/18/21 08:39
Sample Depth: 2

Lab Sample ID: 890-1589-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 16:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 16:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 16:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/19/21 09:30	11/19/21 16:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 16:11	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/19/21 09:30	11/19/21 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*11/19/21 09:30*	*11/19/21 16:11*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Client Sample ID: FS42
Date Collected: 11/15/21 14:00
Date Received: 11/18/21 08:39
Sample Depth: 2

Lab Sample ID: 890-1589-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/19/21 09:30*	*11/19/21 16:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**84.9**		50.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/19/21 09:12	11/19/21 19:26	1
Diesel Range Organics (Over C10-C28)	**84.9**		50.0	mg/Kg		11/19/21 09:12	11/19/21 19:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/19/21 09:12	11/19/21 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/19/21 09:12*	*11/19/21 19:26*	*1*
o-Terphenyl	*111*		*70 - 130*	*11/19/21 09:12*	*11/19/21 19:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.4**		5.00	mg/Kg			11/29/21 17:28	1

Client Sample ID: SW35
Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39
Sample Depth: 0 - 2

Lab Sample ID: 890-1589-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/19/21 09:30	11/19/21 16:38	1
Toluene	**0.00361**		0.00201	mg/Kg		11/19/21 09:30	11/19/21 16:38	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/19/21 09:30	11/19/21 16:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/19/21 09:30	11/19/21 16:38	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/19/21 09:30	11/19/21 16:38	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/19/21 09:30	11/19/21 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:30*	*11/19/21 16:38*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/19/21 09:30*	*11/19/21 16:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/23/21 08:35	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Client Sample ID: SW35

Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39
Sample Depth: 0 - 2

Lab Sample ID: 890-1589-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 19:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 19:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/19/21 09:12*	*11/19/21 19:47*	*1*
o-Terphenyl	*102*		*70 - 130*	*11/19/21 09:12*	*11/19/21 19:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**320**		4.98		mg/Kg			11/29/21 17:39	1

Client Sample ID: SW36

Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39
Sample Depth: 0 - 2

Lab Sample ID: 890-1589-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:30	11/19/21 17:04	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:30	11/19/21 17:04	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:30	11/19/21 17:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/19/21 09:30	11/19/21 17:04	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:30	11/19/21 17:04	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/19/21 09:30	11/19/21 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*171*	*S1+*	*70 - 130*	*11/19/21 09:30*	*11/19/21 17:04*	*1*
1,4-Difluorobenzene (Surr)	*0.5*	*S1-*	*70 - 130*	*11/19/21 09:30*	*11/19/21 17:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 20:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 20:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*11/19/21 09:12*	*11/19/21 20:08*	*1*
o-Terphenyl	*127*		*70 - 130*	*11/19/21 09:12*	*11/19/21 20:08*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Client Sample ID: SW36
Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39
Sample Depth: 0 - 2

Lab Sample ID: 890-1589-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.0		4.99		mg/Kg			11/29/21 18:12	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8475-A-1-B MS	Matrix Spike	78	90
880-8475-A-1-C MSD	Matrix Spike Duplicate	79	72
890-1589-1	FS41	113	110
890-1589-2	FS42	101	107
890-1589-3	SW35	98	94
890-1589-4	SW36	171 S1+	0.5 S1-
LCS 880-12684/1-A	Lab Control Sample	93	98
LCSD 880-12684/2-A	Lab Control Sample Dup	95	109
MB 880-12684/5-A	Method Blank	68 S1-	96

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1589-1	FS41	101	119
890-1589-2	FS42	98	111
890-1589-3	SW35	95	102
890-1589-4	SW36	110	127

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12684/5-A
Matrix: Solid
Analysis Batch: 12718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12684

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 13:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 13:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 13:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/19/21 09:30	11/19/21 13:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:30	11/19/21 13:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/19/21 09:30	11/19/21 13:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*11/19/21 09:30*	*11/19/21 13:01*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/19/21 09:30*	*11/19/21 13:01*	*1*

Lab Sample ID: LCS 880-12684/1-A
Matrix: Solid
Analysis Batch: 12718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12684

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08353		mg/Kg		84	70 - 130		
Toluene			0.100	0.09588		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09504		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.2101		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.09622		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-12684/2-A
Matrix: Solid
Analysis Batch: 12718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12684

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09496		mg/Kg		95	70 - 130	13	35
Toluene			0.100	0.09267		mg/Kg		93	70 - 130	3	35
Ethylbenzene			0.100	0.09190		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2034		mg/Kg		102	70 - 130	3	35
o-Xylene			0.100	0.09414		mg/Kg		94	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-8475-A-1-B MS
Matrix: Solid
Analysis Batch: 12718

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12684

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U F1	0.0998	0.05266	F1	mg/Kg		53	70 - 130		
Toluene	<0.00198	U F2 F1	0.0998	0.06060	F1	mg/Kg		61	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

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

Lab Sample ID: 880-8475-A-1-B MS
Matrix: Solid
Analysis Batch: 12718

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12684

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U F1	0.0998	0.06111	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00397	U F2 F1	0.200	0.1205	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00198	U F2 F1	0.0998	0.06198	F1	mg/Kg		62	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-8475-A-1-C MSD
Matrix: Solid
Analysis Batch: 12718

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12684

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0992	0.04129	F1	mg/Kg		42	70 - 130	24	35
Toluene	<0.00198	U F2 F1	0.0992	0.04171	F2 F1	mg/Kg		42	70 - 130	37	35
Ethylbenzene	<0.00198	U F1	0.0992	0.05513	F1	mg/Kg		56	70 - 130	10	35
m-Xylene & p-Xylene	<0.00397	U F2 F1	0.198	0.05314	F2 F1	mg/Kg		27	70 - 130	78	35
o-Xylene	<0.00198	U F2 F1	0.0992	0.03093	F2 F1	mg/Kg		31	70 - 130	67	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12802/1-A
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/29/21 12:52	1

Lab Sample ID: LCS 880-12802/2-A
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	271.1		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-12802/3-A
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	270.4		mg/Kg		108	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1589-4 MS
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: SW36
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	70.0		250	342.1		mg/Kg		109	90 - 110		

Lab Sample ID: 890-1589-4 MSD
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: SW36
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	70.0		250	337.4		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

GC VOA

Prep Batch: 12684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Total/NA	Solid	5035	
890-1589-2	FS42	Total/NA	Solid	5035	
890-1589-3	SW35	Total/NA	Solid	5035	
890-1589-4	SW36	Total/NA	Solid	5035	
MB 880-12684/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12684/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12684/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8475-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-8475-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Total/NA	Solid	8021B	12684
890-1589-2	FS42	Total/NA	Solid	8021B	12684
890-1589-3	SW35	Total/NA	Solid	8021B	12684
890-1589-4	SW36	Total/NA	Solid	8021B	12684
MB 880-12684/5-A	Method Blank	Total/NA	Solid	8021B	12684
LCS 880-12684/1-A	Lab Control Sample	Total/NA	Solid	8021B	12684
LCSD 880-12684/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12684
880-8475-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	12684
880-8475-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12684

Analysis Batch: 12945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Total/NA	Solid	Total BTEX	
890-1589-2	FS42	Total/NA	Solid	Total BTEX	
890-1589-3	SW35	Total/NA	Solid	Total BTEX	
890-1589-4	SW36	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Total/NA	Solid	8015NM Prep	
890-1589-2	FS42	Total/NA	Solid	8015NM Prep	
890-1589-3	SW35	Total/NA	Solid	8015NM Prep	
890-1589-4	SW36	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Total/NA	Solid	8015B NM	12716
890-1589-2	FS42	Total/NA	Solid	8015B NM	12716
890-1589-3	SW35	Total/NA	Solid	8015B NM	12716
890-1589-4	SW36	Total/NA	Solid	8015B NM	12716

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Total/NA	Solid	8015 NM	
890-1589-2	FS42	Total/NA	Solid	8015 NM	
890-1589-3	SW35	Total/NA	Solid	8015 NM	
890-1589-4	SW36	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

HPLC/IC

Leach Batch: 12802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Soluble	Solid	DI Leach	
890-1589-2	FS42	Soluble	Solid	DI Leach	
890-1589-3	SW35	Soluble	Solid	DI Leach	
890-1589-4	SW36	Soluble	Solid	DI Leach	
MB 880-12802/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12802/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12802/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1589-4 MS	SW36	Soluble	Solid	DI Leach	
890-1589-4 MSD	SW36	Soluble	Solid	DI Leach	

Analysis Batch: 13318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1589-1	FS41	Soluble	Solid	300.0	12802
890-1589-2	FS42	Soluble	Solid	300.0	12802
890-1589-3	SW35	Soluble	Solid	300.0	12802
890-1589-4	SW36	Soluble	Solid	300.0	12802
MB 880-12802/1-A	Method Blank	Soluble	Solid	300.0	12802
LCS 880-12802/2-A	Lab Control Sample	Soluble	Solid	300.0	12802
LCSD 880-12802/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12802
890-1589-4 MS	SW36	Soluble	Solid	300.0	12802
890-1589-4 MSD	SW36	Soluble	Solid	300.0	12802

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Client Sample ID: FS41
Date Collected: 11/15/21 14:00
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1589-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12684	11/19/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	12718	11/19/21 15:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 19:05	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 17:09	CH	XEN MID

Client Sample ID: FS42
Date Collected: 11/15/21 14:00
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1589-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12684	11/19/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	12718	11/19/21 16:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 19:26	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 17:28	CH	XEN MID

Client Sample ID: SW35
Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1589-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12684	11/19/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	12718	11/19/21 16:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 19:47	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 17:39	CH	XEN MID

Client Sample ID: SW36
Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1589-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12684	11/19/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	12718	11/19/21 17:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Client Sample ID: SW36

Date Collected: 11/15/21 14:05
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1589-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 20:08	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 18:12	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1589-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1589-1	FS41	Solid	11/15/21 14:00	11/18/21 08:39	2
890-1589-2	FS42	Solid	11/15/21 14:00	11/18/21 08:39	2
890-1589-3	SW35	Solid	11/15/21 14:05	11/18/21 08:39	0 - 2
890-1589-4	SW36	Solid	11/15/21 14:05	11/18/21 08:39	0 - 2

Page 29 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	mercy.rotich@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Mercy Rotich	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	5.8/5.6	Thermometer ID	TWM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
FS41	S	11/15/2021	1400	2'	1	x	x	x	COMPOSITE
FS42	S	11/15/2021	1400	2'	1	x	x	x	COMPOSITE
SW35	S	11/15/2021	1405	0-2'	1	x	x	x	COMPOSITE
SSW36	S	11/15/2021	1405	0-2'	1	x	x	x	COMPOSITE

890-1589 Chain of Custody

Work Order Notes

~~Incident #: nAPP2034638293~~
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.18.21 839	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Page 20 of 22

12/30/2021 (Rev. 1)

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1589-1
SDG Number: te012929159

Login Number: 1589
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1589-1
SDG Number: te012929159

Login Number: 1589
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/19/21 11:47 AM

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	3.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1590-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/2/2021 11:13:05 AM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1590-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 13
QC Sample Results 15
QC Association Summary 22
Lab Chronicle 26
Certification Summary 30
Method Summary 31
Sample Summary 32
Chain of Custody 33
Receipt Checklists 34

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1590-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Job ID: 890-1590-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1590-1

Receipt
The samples were received on 11/18/2021 8:39 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 5.6°C

Receipt Exceptions
The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): FS43 (890-1590-1), FS45 (890-1590-2), FS46 (890-1590-3), FS47 (890-1590-4), FS49 (890-1590-5), FS50 (890-1590-6), FS51 (890-1590-7), SW38 (890-1590-8), SW39 (890-1590-9) and SW40 (890-1590-10)
The following samples are extras that are not on COC-Samples will be sent like normal.
Ross Ranch 6 SW42 0-3' 13:40 11/17/21 AC XTO
Ross Ranch 6 SW41 0-3' 13:30 11/17/21 AC XTO

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-12717 and analytical batch 880-12737 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS45 (890-1590-2) and (LCSD 880-12717/3-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-12803 and analytical batch 880-13320 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS43

Lab Sample ID: 890-1590-1
Matrix: Solid
Date Collected: 11/16/21 11:15
Date Received: 11/18/21 08:39
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:28	1
Toluene	**0.00333**		0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/19/21 09:45	11/19/21 17:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/19/21 09:45	11/19/21 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/19/21 09:45*	*11/19/21 17:28*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*11/19/21 09:45*	*11/19/21 17:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.4**		49.8		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+	49.8		mg/Kg		11/19/21 09:13	11/19/21 17:18	1
Diesel Range Organics (Over C10-C28)	**53.4**		49.8		mg/Kg		11/19/21 09:13	11/19/21 17:18	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/19/21 09:13	11/19/21 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*11/19/21 09:13*	*11/19/21 17:18*	*1*
o-Terphenyl	*82*		*70 - 130*	*11/19/21 09:13*	*11/19/21 17:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			11/29/21 18:47	1

Client Sample ID: FS45

Lab Sample ID: 890-1590-2
Matrix: Solid
Date Collected: 11/16/21 11:25
Date Received: 11/18/21 08:39
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:49	1
Toluene	**0.00203**		0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/19/21 09:45	11/19/21 17:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 17:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/19/21 09:45	11/19/21 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*11/19/21 09:45*	*11/19/21 17:49*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS45

Lab Sample ID: 890-1590-2
Matrix: Solid
Date Collected: 11/16/21 11:25
Date Received: 11/18/21 08:39
Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/19/21 09:45*	*11/19/21 17:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**57.9**		50.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0	mg/Kg		11/19/21 09:13	11/19/21 17:39	1
Diesel Range Organics (Over C10-C28)	**57.9**		50.0	mg/Kg		11/19/21 09:13	11/19/21 17:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/19/21 09:13	11/19/21 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*11/19/21 09:13*	*11/19/21 17:39*	*1*
o-Terphenyl	*70*		*70 - 130*	*11/19/21 09:13*	*11/19/21 17:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01	mg/Kg			11/29/21 18:58	1

Client Sample ID: FS46

Lab Sample ID: 890-1590-3
Matrix: Solid
Date Collected: 11/16/21 12:30
Date Received: 11/18/21 08:39
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		11/19/21 09:45	11/19/21 18:09	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/19/21 09:45	11/19/21 18:09	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/19/21 09:45	11/19/21 18:09	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		11/19/21 09:45	11/19/21 18:09	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/19/21 09:45	11/19/21 18:09	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		11/19/21 09:45	11/19/21 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/19/21 09:45*	*11/19/21 18:09*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/19/21 09:45*	*11/19/21 18:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/23/21 08:35	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS46

Lab Sample ID: 890-1590-3
Matrix: Solid
Date Collected: 11/16/21 12:30
Date Received: 11/18/21 08:39
Sample Depth: 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+	49.9		mg/Kg		11/19/21 09:13	11/19/21 18:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/19/21 09:13	11/19/21 18:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/19/21 09:13	11/19/21 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*11/19/21 09:13*	*11/19/21 18:22*	*1*
o-Terphenyl	*76*		*70 - 130*	*11/19/21 09:13*	*11/19/21 18:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.3**		4.97		mg/Kg			11/29/21 19:32	1

Client Sample ID: FS47

Lab Sample ID: 890-1590-4
Matrix: Solid
Date Collected: 11/16/21 12:35
Date Received: 11/18/21 08:39
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 18:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 18:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 18:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/19/21 09:45	11/19/21 18:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 18:30	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/19/21 09:45	11/19/21 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*11/19/21 09:45*	*11/19/21 18:30*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 18:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0		mg/Kg		11/19/21 09:13	11/19/21 18:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 18:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/19/21 09:13*	*11/19/21 18:43*	*1*
o-Terphenyl	*98*		*70 - 130*	*11/19/21 09:13*	*11/19/21 18:43*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS47

Lab Sample ID: 890-1590-4
Matrix: Solid
Date Collected: 11/16/21 12:35
Date Received: 11/18/21 08:39
Sample Depth: 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.89**		4.95		mg/Kg			11/29/21 19:43	1

Client Sample ID: FS49

Lab Sample ID: 890-1590-5
Matrix: Solid
Date Collected: 11/17/21 10:00
Date Received: 11/18/21 08:39
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 18:51	1
Toluene	**0.00245**		0.00202		mg/Kg		11/19/21 09:45	11/19/21 18:51	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 18:51	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/19/21 09:45	11/19/21 18:51	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 18:51	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/19/21 09:45	11/19/21 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*11/19/21 09:45*	*11/19/21 18:51*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 18:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*11/19/21 09:13*	*11/19/21 19:05*	*1*
o-Terphenyl	*99*		*70 - 130*	*11/19/21 09:13*	*11/19/21 19:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.3**		4.98		mg/Kg			11/29/21 19:55	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS50

Lab Sample ID: 890-1590-6
Matrix: Solid
Date Collected: 11/17/21 10:10
Date Received: 11/18/21 08:39
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 19:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 19:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 19:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/19/21 09:45	11/19/21 19:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/19/21 09:45	11/19/21 19:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/19/21 09:45	11/19/21 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/19/21 09:45*	*11/19/21 19:11*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 19:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**237**		50.0		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:26	1
Diesel Range Organics (Over C10-C28)	**237**		50.0		mg/Kg		11/19/21 09:13	11/19/21 19:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*11/19/21 09:13*	*11/19/21 19:26*	*1*
o-Terphenyl	*83*		*70 - 130*	*11/19/21 09:13*	*11/19/21 19:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.7**		4.95		mg/Kg			11/29/21 20:06	1

Client Sample ID: FS51

Lab Sample ID: 890-1590-7
Matrix: Solid
Date Collected: 11/17/21 10:20
Date Received: 11/18/21 08:39
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/19/21 09:45	11/19/21 19:32	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/19/21 09:45	11/19/21 19:32	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/19/21 09:45	11/19/21 19:32	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/19/21 09:45	11/19/21 19:32	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/19/21 09:45	11/19/21 19:32	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/19/21 09:45	11/19/21 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*11/19/21 09:45*	*11/19/21 19:32*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS51

Lab Sample ID: 890-1590-7
Matrix: Solid
Date Collected: 11/17/21 10:20
Date Received: 11/18/21 08:39
Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/19/21 09:45*	*11/19/21 19:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*74*		*70 - 130*	*11/19/21 09:13*	*11/19/21 19:47*	*1*
o-Terphenyl	*79*		*70 - 130*	*11/19/21 09:13*	*11/19/21 19:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.4**		5.04		mg/Kg			11/29/21 20:18	1

Client Sample ID: SW38

Lab Sample ID: 890-1590-8
Matrix: Solid
Date Collected: 11/17/21 12:35
Date Received: 11/18/21 08:39
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 19:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 19:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 19:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/19/21 09:45	11/19/21 19:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 19:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/19/21 09:45	11/19/21 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:45*	*11/19/21 19:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/19/21 09:45*	*11/19/21 19:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/23/21 08:35	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: SW38

Lab Sample ID: 890-1590-8
Matrix: Solid
Date Collected: 11/17/21 12:35
Date Received: 11/18/21 08:39
Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+	49.8		mg/Kg		11/19/21 09:13	11/19/21 20:08	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/19/21 09:13	11/19/21 20:08	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/19/21 09:13	11/19/21 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*11/19/21 09:13*	*11/19/21 20:08*	*1*
o-Terphenyl	*75*		*70 - 130*	*11/19/21 09:13*	*11/19/21 20:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.2**		5.01		mg/Kg			11/29/21 20:29	1

Client Sample ID: SW39

Lab Sample ID: 890-1590-9
Matrix: Solid
Date Collected: 11/17/21 11:00
Date Received: 11/18/21 08:39
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:45	11/19/21 20:14	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:45	11/19/21 20:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:45	11/19/21 20:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/19/21 09:45	11/19/21 20:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/19/21 09:45	11/19/21 20:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/19/21 09:45	11/19/21 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*11/19/21 09:45*	*11/19/21 20:14*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/19/21 09:45*	*11/19/21 20:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+	49.9		mg/Kg		11/19/21 09:13	11/19/21 20:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/19/21 09:13	11/19/21 20:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/19/21 09:13	11/19/21 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*11/19/21 09:13*	*11/19/21 20:29*	*1*
o-Terphenyl	*86*		*70 - 130*	*11/19/21 09:13*	*11/19/21 20:29*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: SW39

Lab Sample ID: 890-1590-9
Matrix: Solid
Date Collected: 11/17/21 11:00
Date Received: 11/18/21 08:39
Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	131		4.99		mg/Kg			11/29/21 20:40	1

Client Sample ID: SW40

Lab Sample ID: 890-1590-10
Matrix: Solid
Date Collected: 11/17/21 11:15
Date Received: 11/18/21 08:39
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 20:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 20:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 20:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/19/21 09:45	11/19/21 20:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 20:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/19/21 09:45	11/19/21 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 20:34*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/19/21 09:45*	*11/19/21 20:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+	49.9		mg/Kg		11/19/21 09:13	11/19/21 20:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/19/21 09:13	11/19/21 20:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/19/21 09:13	11/19/21 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*11/19/21 09:13*	*11/19/21 20:51*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/19/21 09:13*	*11/19/21 20:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.6	F1	4.98		mg/Kg			11/30/21 22:18	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1590-1	FS43	87	105
890-1590-2	FS45	96	99
890-1590-3	FS46	99	103
890-1590-4	FS47	100	102
890-1590-5	FS49	100	102
890-1590-6	FS50	99	102
890-1590-7	FS51	92	96
890-1590-8	SW38	98	96
890-1590-9	SW39	91	99
890-1590-10	SW40	102	99
890-1593-A-1-A MS	Matrix Spike	100	90
890-1593-A-1-B MSD	Matrix Spike Duplicate	99	94
LCS 880-12636/1-A	Lab Control Sample	96	89
LCSD 880-12636/2-A	Lab Control Sample Dup	95	94
MB 880-12636/5-A	Method Blank	111	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1590-1	FS43	77	82
890-1590-2	FS45	66 S1-	70
890-1590-3	FS46	72	76
890-1590-4	FS47	89	98
890-1590-5	FS49	92	99
890-1590-6	FS50	76	83
890-1590-7	FS51	74	79
890-1590-8	SW38	73	75
890-1590-9	SW39	79	86
890-1590-10	SW40	90	104
890-1601-A-1-G MS	Matrix Spike	101	97
890-1601-A-1-H MSD	Matrix Spike Duplicate	108	103
890-1609-A-1-K MS	Matrix Spike	127	117
890-1609-A-1-L MSD	Matrix Spike Duplicate	112	97
LCS 880-12717/2-A	Lab Control Sample	91	73
LCS 880-13113/2-A	Lab Control Sample	299 S1+	284 S1+
LCSD 880-12717/3-A	Lab Control Sample Dup	131 S1+	119
LCSD 880-13113/3-A	Lab Control Sample Dup	297 S1+	286 S1+
MB 880-12717/1-A	Method Blank	96	106
MB 880-13113/1-A	Method Blank	141 S1+	142 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1590-1
Project/Site: Ross Ranch 6 SDG: te012929159

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

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

		Percent Surrogate Recovery (Acceptance Limits)							
		1CO1	OTPH1						
Lab Sample ID	**Client Sample ID**								
890-1601-A-1-G MS	Matrix Spike								
890-1601-A-1-H MSD	Matrix Spike Duplicate								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12636/5-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12636

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*

Lab Sample ID: LCS 880-12636/1-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08879		mg/Kg		89	70 - 130		
Toluene			0.100	0.07904		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1751		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08756		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-12636/2-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09392		mg/Kg		94	70 - 130	6	35
Toluene			0.100	0.08333		mg/Kg		83	70 - 130	5	35
Ethylbenzene			0.100	0.08763		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1689		mg/Kg		84	70 - 130	4	35
o-Xylene			0.100	0.08523		mg/Kg		85	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09093		mg/Kg					
Toluene	<0.00200	U	0.100	0.08477		mg/Kg					

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

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

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.100	0.08814		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1714		mg/Kg					
o-Xylene	<0.00200	U	0.100	0.08719		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-A MS
Matrix: Solid
Analysis Batch: 12713

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-12717/1-A
Matrix: Solid
Analysis Batch: 12737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12717

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 12:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 12:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:13	11/19/21 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/19/21 09:13*	*11/19/21 12:33*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/19/21 09:13*	*11/19/21 12:33*	*1*

Lab Sample ID: LCS 880-12717/2-A
Matrix: Solid
Analysis Batch: 12737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12717

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1214		mg/Kg		121	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	751.9		mg/Kg		75	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*91*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-12717/3-A
Matrix: Solid
Analysis Batch: 12737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12717

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1354	*+	mg/Kg		135	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	859.7		mg/Kg		86	70 - 130	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*131*	*S1+*	*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Lab Sample ID: 890-1601-A-1-G MS
Matrix: Solid
Analysis Batch: 12737

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	998	965.1		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	793.3		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 890-1601-A-1-G MS
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			998	1127		mg/Kg			
Diesel Range Organics (Over C10-C28)			998	1068		mg/Kg			

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane			
o-Terphenyl			

Lab Sample ID: 890-1601-A-1-H MSD
Matrix: Solid
Analysis Batch: 12737

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+	998	945.5		mg/Kg		92	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	856.3		mg/Kg		86	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

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

Lab Sample ID: 890-1601-A-1-H MSD
Matrix: Solid
Analysis Batch: 12737

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12717

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-1601-A-1-H MSD
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			998	1129		mg/Kg					
Diesel Range Organics (Over C10-C28)			998	1074		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane			
o-Terphenyl			

Lab Sample ID: MB 880-13113/1-A
Matrix: Solid
Analysis Batch: 13221

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13113

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/24/21 08:16	11/24/21 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/24/21 08:16	11/24/21 13:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/24/21 08:16	11/24/21 13:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	11/24/21 08:16	11/24/21 13:24	1
o-Terphenyl	142	S1+	70 - 130	11/24/21 08:16	11/24/21 13:24	1

Lab Sample ID: LCS 880-13113/2-A
Matrix: Solid
Analysis Batch: 13221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13113

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	976.6		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	913.3		mg/Kg		91	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	299	S1+	70 - 130
o-Terphenyl	284	S1+	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-13113/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13221 — **Prep Batch: 13113**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	963.4		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	910.4		mg/Kg		91	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*297*	*S1+*	*70 - 130*
o-Terphenyl	*286*	*S1+*	*70 - 130*

Lab Sample ID: 890-1609-A-1-K MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13221 — **Prep Batch: 13113**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	997	1262		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	187		997	1242		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*127*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: 890-1609-A-1-L MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13221 — **Prep Batch: 13113**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	1717	F1 F2	mg/Kg		170	70 - 130	31	20
Diesel Range Organics (Over C10-C28)	187		999	1101		mg/Kg		91	70 - 130	12	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12802/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 13318

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/29/21 12:52	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-12802/2-A
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	271.1		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-12802/3-A
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	270.4		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-1589-A-4-F MS
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	70.0		250	342.1		mg/Kg		109	90 - 110		

Lab Sample ID: 890-1589-A-4-G MSD
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	70.0		250	337.4		mg/Kg		107	90 - 110	1	20

Lab Sample ID: MB 880-12803/1-A
Matrix: Solid
Analysis Batch: 13320

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/30/21 21:43	1

Lab Sample ID: LCS 880-12803/2-A
Matrix: Solid
Analysis Batch: 13320

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	274.7		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-12803/3-A
Matrix: Solid
Analysis Batch: 13320

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	274.8		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 890-1590-10 MS
Matrix: Solid
Analysis Batch: 13320

Client Sample ID: SW40
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	20.6	F1	249	327.3	F1	mg/Kg		123	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1590-10 MSD
Matrix: Solid
Analysis Batch: 13320

Client Sample ID: SW40
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	20.6	F1	249	316.9	F1	mg/Kg		119	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

GC VOA

Prep Batch: 12636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Total/NA	Solid	5035	
890-1590-2	FS45	Total/NA	Solid	5035	
890-1590-3	FS46	Total/NA	Solid	5035	
890-1590-4	FS47	Total/NA	Solid	5035	
890-1590-5	FS49	Total/NA	Solid	5035	
890-1590-6	FS50	Total/NA	Solid	5035	
890-1590-7	FS51	Total/NA	Solid	5035	
890-1590-8	SW38	Total/NA	Solid	5035	
890-1590-9	SW39	Total/NA	Solid	5035	
890-1590-10	SW40	Total/NA	Solid	5035	
MB 880-12636/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Total/NA	Solid	8021B	12636
890-1590-2	FS45	Total/NA	Solid	8021B	12636
890-1590-3	FS46	Total/NA	Solid	8021B	12636
890-1590-4	FS47	Total/NA	Solid	8021B	12636
890-1590-5	FS49	Total/NA	Solid	8021B	12636
890-1590-6	FS50	Total/NA	Solid	8021B	12636
890-1590-7	FS51	Total/NA	Solid	8021B	12636
890-1590-8	SW38	Total/NA	Solid	8021B	12636
890-1590-9	SW39	Total/NA	Solid	8021B	12636
890-1590-10	SW40	Total/NA	Solid	8021B	12636
MB 880-12636/5-A	Method Blank	Total/NA	Solid	8021B	12636
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	8021B	12636
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12636
890-1593-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12636

Analysis Batch: 12945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Total/NA	Solid	Total BTEX	
890-1590-2	FS45	Total/NA	Solid	Total BTEX	
890-1590-3	FS46	Total/NA	Solid	Total BTEX	
890-1590-4	FS47	Total/NA	Solid	Total BTEX	
890-1590-5	FS49	Total/NA	Solid	Total BTEX	
890-1590-6	FS50	Total/NA	Solid	Total BTEX	
890-1590-7	FS51	Total/NA	Solid	Total BTEX	
890-1590-8	SW38	Total/NA	Solid	Total BTEX	
890-1590-9	SW39	Total/NA	Solid	Total BTEX	
890-1590-10	SW40	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

GC Semi VOA (Continued)

Prep Batch: 12717 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-2	FS45	Total/NA	Solid	8015NM Prep	
890-1590-3	FS46	Total/NA	Solid	8015NM Prep	
890-1590-4	FS47	Total/NA	Solid	8015NM Prep	
890-1590-5	FS49	Total/NA	Solid	8015NM Prep	
890-1590-6	FS50	Total/NA	Solid	8015NM Prep	
890-1590-7	FS51	Total/NA	Solid	8015NM Prep	
890-1590-8	SW38	Total/NA	Solid	8015NM Prep	
890-1590-9	SW39	Total/NA	Solid	8015NM Prep	
890-1590-10	SW40	Total/NA	Solid	8015NM Prep	
MB 880-12717/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12717/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-12717/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1601-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1601-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Total/NA	Solid	8015B NM	12717
890-1590-2	FS45	Total/NA	Solid	8015B NM	12717
890-1590-3	FS46	Total/NA	Solid	8015B NM	12717
890-1590-4	FS47	Total/NA	Solid	8015B NM	12717
890-1590-5	FS49	Total/NA	Solid	8015B NM	12717
890-1590-6	FS50	Total/NA	Solid	8015B NM	12717
890-1590-7	FS51	Total/NA	Solid	8015B NM	12717
890-1590-8	SW38	Total/NA	Solid	8015B NM	12717
890-1590-9	SW39	Total/NA	Solid	8015B NM	12717
890-1590-10	SW40	Total/NA	Solid	8015B NM	12717
MB 880-12717/1-A	Method Blank	Total/NA	Solid	8015B NM	12717
LCS 880-12717/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12717
LCSD 880-12717/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12717
890-1601-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	12717
890-1601-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12717

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Total/NA	Solid	8015 NM	
890-1590-2	FS45	Total/NA	Solid	8015 NM	
890-1590-3	FS46	Total/NA	Solid	8015 NM	
890-1590-4	FS47	Total/NA	Solid	8015 NM	
890-1590-5	FS49	Total/NA	Solid	8015 NM	
890-1590-6	FS50	Total/NA	Solid	8015 NM	
890-1590-7	FS51	Total/NA	Solid	8015 NM	
890-1590-8	SW38	Total/NA	Solid	8015 NM	
890-1590-9	SW39	Total/NA	Solid	8015 NM	
890-1590-10	SW40	Total/NA	Solid	8015 NM	

Analysis Batch: 13043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1601-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	12717
890-1601-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12717

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

GC Semi VOA

Prep Batch: 13113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13113/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13113/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13113/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1609-A-1-K MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1609-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13113/1-A	Method Blank	Total/NA	Solid	8015B NM	13113
LCS 880-13113/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13113
LCSD 880-13113/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13113
890-1609-A-1-K MS	Matrix Spike	Total/NA	Solid	8015B NM	13113
890-1609-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13113

HPLC/IC

Leach Batch: 12802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Soluble	Solid	DI Leach	
890-1590-2	FS45	Soluble	Solid	DI Leach	
890-1590-3	FS46	Soluble	Solid	DI Leach	
890-1590-4	FS47	Soluble	Solid	DI Leach	
890-1590-5	FS49	Soluble	Solid	DI Leach	
890-1590-6	FS50	Soluble	Solid	DI Leach	
890-1590-7	FS51	Soluble	Solid	DI Leach	
890-1590-8	SW38	Soluble	Solid	DI Leach	
890-1590-9	SW39	Soluble	Solid	DI Leach	
MB 880-12802/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12802/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12802/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1589-A-4-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1589-A-4-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 12803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-10	SW40	Soluble	Solid	DI Leach	
MB 880-12803/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12803/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12803/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1590-10 MS	SW40	Soluble	Solid	DI Leach	
890-1590-10 MSD	SW40	Soluble	Solid	DI Leach	

Analysis Batch: 13318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-1	FS43	Soluble	Solid	300.0	12802
890-1590-2	FS45	Soluble	Solid	300.0	12802
890-1590-3	FS46	Soluble	Solid	300.0	12802
890-1590-4	FS47	Soluble	Solid	300.0	12802
890-1590-5	FS49	Soluble	Solid	300.0	12802
890-1590-6	FS50	Soluble	Solid	300.0	12802
890-1590-7	FS51	Soluble	Solid	300.0	12802

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

HPLC/IC (Continued)

Analysis Batch: 13318 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-8	SW38	Soluble	Solid	300.0	12802
890-1590-9	SW39	Soluble	Solid	300.0	12802
MB 880-12802/1-A	Method Blank	Soluble	Solid	300.0	12802
LCS 880-12802/2-A	Lab Control Sample	Soluble	Solid	300.0	12802
LCSD 880-12802/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12802
890-1589-A-4-F MS	Matrix Spike	Soluble	Solid	300.0	12802
890-1589-A-4-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12802

Analysis Batch: 13320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1590-10	SW40	Soluble	Solid	300.0	12803
MB 880-12803/1-A	Method Blank	Soluble	Solid	300.0	12803
LCS 880-12803/2-A	Lab Control Sample	Soluble	Solid	300.0	12803
LCSD 880-12803/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12803
890-1590-10 MS	SW40	Soluble	Solid	300.0	12803
890-1590-10 MSD	SW40	Soluble	Solid	300.0	12803

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS43

Lab Sample ID: 890-1590-1
Matrix: Solid
Date Collected: 11/16/21 11:15
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 17:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 17:18	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 18:47	CH	XEN MID

Client Sample ID: FS45

Lab Sample ID: 890-1590-2
Matrix: Solid
Date Collected: 11/16/21 11:25
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 17:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 17:39	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 18:58	CH	XEN MID

Client Sample ID: FS46

Lab Sample ID: 890-1590-3
Matrix: Solid
Date Collected: 11/16/21 12:30
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 18:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 18:22	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 19:32	CH	XEN MID

Client Sample ID: FS47

Lab Sample ID: 890-1590-4
Matrix: Solid
Date Collected: 11/16/21 12:35
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 18:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Client Sample ID: FS47
Date Collected: 11/16/21 12:35
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1590-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 18:43	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 19:43	CH	XEN MID

Client Sample ID: FS49
Date Collected: 11/17/21 10:00
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1590-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 18:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 19:05	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 19:55	CH	XEN MID

Client Sample ID: FS50
Date Collected: 11/17/21 10:10
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1590-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 19:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 19:26	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 20:06	CH	XEN MID

Client Sample ID: FS51
Date Collected: 11/17/21 10:20
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1590-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 19:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 19:47	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1590-1
Project/Site: Ross Ranch 6 SDG: te012929159

Client Sample ID: FS51 Lab Sample ID: 890-1590-7

Date Collected: 11/17/21 10:20 **Matrix: Solid**
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 20:18	CH	XEN MID

Client Sample ID: SW38 Lab Sample ID: 890-1590-8

Date Collected: 11/17/21 12:35 **Matrix: Solid**
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 19:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 20:08	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 20:29	CH	XEN MID

Client Sample ID: SW39 Lab Sample ID: 890-1590-9

Date Collected: 11/17/21 11:00 **Matrix: Solid**
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 20:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 20:29	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 20:40	CH	XEN MID

Client Sample ID: SW40 Lab Sample ID: 890-1590-10

Date Collected: 11/17/21 11:15 **Matrix: Solid**
Date Received: 11/18/21 08:39

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 20:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12717	11/19/21 09:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12737	11/19/21 20:51	AJ	XEN MID
Soluble	Leach	DI Leach			12803	11/19/21 16:51	SC	XEN MID
Soluble	Analysis	300.0		1	13320	11/30/21 22:18	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1590-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1590-1	FS43	Solid	11/16/21 11:15	11/18/21 08:39	1
890-1590-2	FS45	Solid	11/16/21 11:25	11/18/21 08:39	1
890-1590-3	FS46	Solid	11/16/21 12:30	11/18/21 08:39	3
890-1590-4	FS47	Solid	11/16/21 12:35	11/18/21 08:39	3
890-1590-5	FS49	Solid	11/17/21 10:00	11/18/21 08:39	1
890-1590-6	FS50	Solid	11/17/21 10:10	11/18/21 08:39	1
890-1590-7	FS51	Solid	11/17/21 10:20	11/18/21 08:39	3
890-1590-8	SW38	Solid	11/17/21 12:35	11/18/21 08:39	0 - 3
890-1590-9	SW39	Solid	11/17/21 11:00	11/18/21 08:39	0 - 4
890-1590-10	SW40	Solid	11/17/21 11:15	11/18/21 08:39	0 - 4

Page 64 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

12/2/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:		Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	✓
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	5.8/5.6	Thermometer ID		
Received Intact:	Yes No	IR-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

890-1590 Chain of Custody

Work Order Notes

~~Incident #: nAPP2034638293~~
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS43	S	11/16/2021	1115	1'	1	x	x	x	COMPOSITE
FS45	S	11/16/2021	1125	1'	1	x	x	x	COMPOSITE
FS46	S	11/16/2021	1230	3'	1	x	x	x	COMPOSITE
FS47	S	11/16/2021	1235	3'	1	x	x	x	COMPOSITE
FS49	S	11/17/2021	1000	1'	1	x	x	x	COMPOSITE
FS50	S	11/17/2021	1010	1'	1	x	x	x	COMPOSITE
FS51	S	11/17/2021	1020	3'	1	x	x	x	COMPOSITE
SW38	S	11/17/2021	1235	0-3'	1	x	x	x	COMPOSITE
SW39	S	11/17/2021	1100	0-4'	1	x	x	x	COMPOSITE
SW40	S	11/17/2021	1115	0-4'	1	x	x	x	COMPOSITE

Page 33 of 35

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-18-21 1839	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1590-1
SDG Number: te012929159

Login Number: 1590
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1590-1
SDG Number: te012929159

Login Number: 1590
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/19/21 11:47 AM

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	3.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1587-1
Laboratory Sample Delivery Group: TE012929159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/19/2021 7:42:38 PM

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

LINKS

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www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1587-1
SDG: TE012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1587-1
Project/Site: Ross Ranch 6 SDG: TE012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Job ID: 890-1587-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1587-1

Receipt
The sample was received on 11/18/2021 8:39 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 5.6°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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-12716 and analytical batch 880-12735 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.

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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Client Sample ID: FS44

Date Collected: 11/16/21 11:20
Date Received: 11/18/21 08:39
Sample Depth: 1

Lab Sample ID: 890-1587-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 13:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 13:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 13:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/19/21 09:45	11/19/21 13:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/19/21 09:45	11/19/21 13:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/19/21 09:45	11/19/21 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*11/19/21 09:45*	*11/19/21 13:41*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*11/19/21 09:45*	*11/19/21 13:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/19/21 18:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**154**		49.9		mg/Kg			11/19/21 13:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/19/21 09:12	11/19/21 16:35	1
Diesel Range Organics (Over C10-C28)	**154**		49.9		mg/Kg		11/19/21 09:12	11/19/21 16:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/19/21 09:12	11/19/21 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/19/21 09:12*	*11/19/21 16:35*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/19/21 09:12*	*11/19/21 16:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.8**		4.95		mg/Kg			11/19/21 16:51	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1587-1	FS44	101	95
890-1593-A-1-A MS	Matrix Spike	100	90
890-1593-A-1-B MSD	Matrix Spike Duplicate	99	94
LCS 880-12636/1-A	Lab Control Sample	96	89
LCSD 880-12636/2-A	Lab Control Sample Dup	95	94
MB 880-12636/5-A	Method Blank	111	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1587-1	FS44	95	110
890-1593-A-1-G MS	Matrix Spike	104	110
890-1593-A-1-H MSD	Matrix Spike Duplicate	97	97
LCS 880-12716/2-A	Lab Control Sample	104	112
LCSD 880-12716/3-A	Lab Control Sample Dup	89	95
MB 880-12716/1-A	Method Blank	108	129

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12636/5-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12636

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*

Lab Sample ID: LCS 880-12636/1-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08879		mg/Kg		89	70 - 130		
Toluene			0.100	0.07904		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1751		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08756		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-12636/2-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09392		mg/Kg		94	70 - 130	6	35
Toluene			0.100	0.08333		mg/Kg		83	70 - 130	5	35
Ethylbenzene			0.100	0.08763		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1689		mg/Kg		84	70 - 130	4	35
o-Xylene			0.100	0.08523		mg/Kg		85	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09093		mg/Kg					
Toluene	<0.00200	U	0.100	0.08477		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

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

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.100	0.08814		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1714		mg/Kg					
o-Xylene	<0.00200	U	0.100	0.08719		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-A MS
Matrix: Solid
Analysis Batch: 12713

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-12716/1-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12716

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/19/21 09:12*	*11/19/21 12:33*	*1*
o-Terphenyl	*129*		*70 - 130*	*11/19/21 09:12*	*11/19/21 12:33*	*1*

Lab Sample ID: LCS 880-12716/2-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12716

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	930.1		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	877.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

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

Lab Sample ID: LCSD 880-12716/3-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12716

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1092		mg/Kg		109	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	840.6		mg/Kg		84	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: 890-1593-A-1-G MS
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12716

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1446	F1	mg/Kg		145	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	912.7		mg/Kg		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-1593-A-1-H MSD
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12716

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1213		mg/Kg		122	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	846.2		mg/Kg		85	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12748/1-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/19/21 16:21	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-12748/2-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-12748/3-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	247.8		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-1586-A-1-G MS
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	477		249	715.1		mg/Kg		96	90 - 110		

Lab Sample ID: 890-1586-A-1-H MSD
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	477		249	714.5		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

GC VOA

Prep Batch: 12636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Total/NA	Solid	5035	
MB 880-12636/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Total/NA	Solid	8021B	12636
MB 880-12636/5-A	Method Blank	Total/NA	Solid	8021B	12636
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	8021B	12636
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12636
890-1593-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12636

Analysis Batch: 12817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Total/NA	Solid	8015NM Prep	
MB 880-12716/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12716/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-12716/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1593-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1593-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Total/NA	Solid	8015B NM	12716
MB 880-12716/1-A	Method Blank	Total/NA	Solid	8015B NM	12716
LCS 880-12716/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12716
LCSD 880-12716/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12716
890-1593-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	12716
890-1593-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12716

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Soluble	Solid	DI Leach	
MB 880-12748/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12748/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12748/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1586-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1587-1
Project/Site: Ross Ranch 6 SDG: TE012929159

HPLC/IC (Continued)

Leach Batch: 12748 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 12795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1587-1	FS44	Soluble	Solid	300.0	12748
MB 880-12748/1-A	Method Blank	Soluble	Solid	300.0	12748
LCS 880-12748/2-A	Lab Control Sample	Soluble	Solid	300.0	12748
LCSD 880-12748/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12748
890-1586-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	12748
890-1586-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12748

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Client Sample ID: FS44
Date Collected: 11/16/21 11:20
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1587-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 13:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12817	11/19/21 18:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/19/21 13:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 16:35	AJ	XEN MID
Soluble	Leach	DI Leach			12748	11/19/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	12795	11/19/21 16:51	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1587-1
Project/Site: Ross Ranch 6 SDG: TE012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1587-1
SDG: TE012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1587-1	FS44	Solid	11/16/21 11:20	11/18/21 08:39	1

Page 83 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

11/19/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☐
P.O. Number:	CC: 1138871001	Rush:	24hr
Sampler's Name:	Alexis Castro	Due Date:	11/19/21

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	5.8/5.6	Thermometer ID		
Received Intact:	(Yes) No	TNM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS44	S	11/16/2021	1120	1'	1	x	x	x	COMPOSITE

890-1587 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Page 17 of 20

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11.18.21 0839	2		
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-514 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1587-1
Address: 1211 W Florida Ave ,	Due Date Requested: 11/22/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I Ice, J DI Water, K - EDTA, L EDA, M - Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S - H2SO4, T TSP Dodecahydrate, U - Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS44 (890-1587-1)	11/16/21	11 20 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II, III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 3.6/3.7

Ver: 06/08/2021

Page 84 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/19/2021
Page 18 of 20
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1587-1
SDG Number: TE012929159

Login Number: 1587
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1587-1
SDG Number: TE012929159

Login Number: 1587
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/19/21 11:47 AM

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	3.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1605-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/24/2021 2:03:02 PM

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

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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1605-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 23

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1605-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Job ID: 890-1605-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1605-1

Receipt
The samples were received on 11/19/2021 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-12848 and analytical batch 880-12855 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.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (LCS 880-12848/2-A) and (LCSD 880-12848/3-A). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: The spike amount in the system for the MS/MSD is inadvertently doubled. The surrogate recovery for these samples is acceptable based on the actual spike amounts which should be 100 ppm and 50 ppm respectively.(890-1608-A-5-F MS) and (890-1608-A-5-F MSD)

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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Client Sample ID: FS54

Lab Sample ID: 890-1605-1
Matrix: Solid
Date Collected: 11/18/21 10:51
Date Received: 11/19/21 08:37
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199		mg/Kg		11/22/21 10:00	11/22/21 14:07	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		11/22/21 10:00	11/22/21 14:07	1
Ethylbenzene	<0.00199	U F1 F2	0.00199		mg/Kg		11/22/21 10:00	11/22/21 14:07	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		11/22/21 10:00	11/22/21 14:07	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		11/22/21 10:00	11/22/21 14:07	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		11/22/21 10:00	11/22/21 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/22/21 10:00*	*11/22/21 14:07*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/22/21 10:00*	*11/22/21 14:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/22/21 16:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**78.1**		49.9		mg/Kg			11/22/21 13:12	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/21/21 12:42	11/22/21 16:49	1
Diesel Range Organics (Over C10-C28)	**78.1**		49.9		mg/Kg		11/21/21 12:42	11/22/21 16:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/21/21 12:42	11/22/21 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*11/21/21 12:42*	*11/22/21 16:49*	*1*
o-Terphenyl	*119*		*70 - 130*	*11/21/21 12:42*	*11/22/21 16:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.8**		4.95		mg/Kg			11/24/21 04:45	1

Client Sample ID: FS58

Lab Sample ID: 890-1605-2
Matrix: Solid
Date Collected: 11/18/21 14:10
Date Received: 11/19/21 08:37
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 14:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 14:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 14:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 14:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 14:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/22/21 10:00*	*11/22/21 14:28*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1605-1
Project/Site: Ross Ranch 6 SDG: te012929159

Client Sample ID: FS58 — Lab Sample ID: 890-1605-2

Date Collected: 11/18/21 14:10 **Matrix: Solid**
Date Received: 11/19/21 08:37
Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/22/21 10:00*	*11/22/21 14:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			11/22/21 16:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**141**		50.0	mg/Kg			11/22/21 13:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/21/21 12:42	11/22/21 17:11	1
Diesel Range Organics (Over C10-C28)	**141**		50.0	mg/Kg		11/21/21 12:42	11/22/21 17:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/21/21 12:42	11/22/21 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*115*		*70 - 130*	*11/21/21 12:42*	*11/22/21 17:11*	*1*
o-Terphenyl	*0.4*	*S1-*	*70 - 130*	*11/21/21 12:42*	*11/22/21 17:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.38**		5.05	mg/Kg			11/24/21 04:56	1

Client Sample ID: SW45 — Lab Sample ID: 890-1605-3

Date Collected: 11/18/21 14:12 **Matrix: Solid**
Date Received: 11/19/21 08:37
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/22/21 10:00	11/22/21 18:37	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/22/21 10:00	11/22/21 18:37	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/22/21 10:00	11/22/21 18:37	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		11/22/21 10:00	11/22/21 18:37	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/22/21 10:00	11/22/21 18:37	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		11/22/21 10:00	11/22/21 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*11/22/21 10:00*	*11/22/21 18:37*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/22/21 10:00*	*11/22/21 18:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			11/22/21 16:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1710**		49.9	mg/Kg			11/22/21 13:12	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Client Sample ID: SW45

Lab Sample ID: 890-1605-3
Matrix: Solid
Date Collected: 11/18/21 14:12
Date Received: 11/19/21 08:37
Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/21/21 12:42	11/22/21 17:32	1
Diesel Range Organics (Over C10-C28)	**1560**		49.9		mg/Kg		11/21/21 12:42	11/22/21 17:32	1
Oil Range Organics (Over C28-C36)	**145**		49.9		mg/Kg		11/21/21 12:42	11/22/21 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*11/21/21 12:42*	*11/22/21 17:32*	*1*
o-Terphenyl	*20*	*S1-*	*70 - 130*	*11/21/21 12:42*	*11/22/21 17:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**155**		4.98		mg/Kg			11/24/21 05:07	1

Client Sample ID: SW46

Lab Sample ID: 890-1605-4
Matrix: Solid
Date Collected: 11/18/21 14:14
Date Received: 11/19/21 08:37
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 18:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 18:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 18:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 18:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 18:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*11/22/21 10:00*	*11/22/21 18:58*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*11/22/21 10:00*	*11/22/21 18:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/22/21 16:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**248**		50.0		mg/Kg			11/22/21 13:12	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/21/21 12:42	11/22/21 17:53	1
Diesel Range Organics (Over C10-C28)	**248**		50.0		mg/Kg		11/21/21 12:42	11/22/21 17:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/21/21 12:42	11/22/21 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/21/21 12:42*	*11/22/21 17:53*	*1*
o-Terphenyl	*113*		*70 - 130*	*11/21/21 12:42*	*11/22/21 17:53*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Client Sample ID: SW46
Date Collected: 11/18/21 14:14
Date Received: 11/19/21 08:37
Sample Depth: 0 - 2

Lab Sample ID: 890-1605-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.7		4.99		mg/Kg			11/24/21 05:19	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1605-1	FS54	99	110
890-1605-1 MS	FS54	102	96
890-1605-1 MSD	FS54	101	95
890-1605-2	FS58	110	86
890-1605-3	SW45	115	93
890-1605-4	SW46	122	87
LCS 880-12797/1-A	Lab Control Sample	93	76
LCSD 880-12797/2-A	Lab Control Sample Dup	106	96
MB 880-12797/5-A	Method Blank	108	90

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1605-1	FS54	122	119
890-1605-2	FS58	115	0.4 S1-
890-1605-3	SW45	119	20 S1-
890-1605-4	SW46	113	113
890-1608-A-5-F MS	Matrix Spike	59 S1-	50 S1-
890-1608-A-5-F MSD	Matrix Spike Duplicate	60 S1-	58 S1-
LCS 880-12848/2-A	Lab Control Sample	297 S1+	281 S1+
LCSD 880-12848/3-A	Lab Control Sample Dup	299 S1+	277 S1+
MB 880-12848/1-A	Method Blank	128	130

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12797/5-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12797

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 13:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*11/22/21 10:00*	*11/22/21 13:46*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/22/21 10:00*	*11/22/21 13:46*	*1*

Lab Sample ID: LCS 880-12797/1-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12797

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08334		mg/Kg		83	70 - 130		
Toluene			0.100	0.08700		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08508		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1602		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08475		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: LCSD 880-12797/2-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12797

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08320		mg/Kg		83	70 - 130	0	35
Toluene			0.100	0.09312		mg/Kg		93	70 - 130	7	35
Ethylbenzene			0.100	0.1027		mg/Kg		103	70 - 130	19	35
m-Xylene & p-Xylene			0.200	0.1878		mg/Kg		94	70 - 130	16	35
o-Xylene			0.100	0.09218		mg/Kg		92	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1605-1 MS
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: FS54
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.0992	0.06875	F1	mg/Kg		69	70 - 130		
Toluene	<0.00199	U F1	0.0992	0.06482	F1	mg/Kg		65	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

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

Lab Sample ID: 890-1605-1 MS
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: FS54
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1 F2	0.0992	<0.00198	U F1	mg/Kg		0.7	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.198	0.1308	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00199	U F1	0.0992	0.06654	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1605-1 MSD
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: FS54
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.07061		mg/Kg		71	70 - 130	3	35
Toluene	<0.00199	U F1	0.0998	0.06947		mg/Kg		70	70 - 130	7	35
Ethylbenzene	<0.00199	U F1 F2	0.0998	0.07297	F2	mg/Kg		73	70 - 130	196	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1427		mg/Kg		71	70 - 130	9	35
o-Xylene	<0.00199	U F1	0.0998	0.07214		mg/Kg		71	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

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

Lab Sample ID: MB 880-12848/1-A
Matrix: Solid
Analysis Batch: 12855

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12848

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/21/21 12:42	11/22/21 10:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/21/21 12:42	11/22/21 10:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/21/21 12:42	11/22/21 10:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*11/21/21 12:42*	*11/22/21 10:19*	*1*
o-Terphenyl	*130*		*70 - 130*	*11/21/21 12:42*	*11/22/21 10:19*	*1*

Lab Sample ID: LCS 880-12848/2-A
Matrix: Solid
Analysis Batch: 12855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12848

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1500	1122		mg/Kg		75	70 - 130
Diesel Range Organics (Over C10-C28)			1500	900.0	*-	mg/Kg		60	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

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

Lab Sample ID: LCS 880-12848/2-A
Matrix: Solid
Analysis Batch: 12855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12848

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	297	S1+	70 - 130
o-Terphenyl	281	S1+	70 - 130

Lab Sample ID: LCSD 880-12848/3-A
Matrix: Solid
Analysis Batch: 12855

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12848

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1500	1149		mg/Kg		77	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1500	889.2	*-	mg/Kg		59	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	299	S1+	70 - 130
o-Terphenyl	277	S1+	70 - 130

Lab Sample ID: 890-1608-A-5-F MS
Matrix: Solid
Analysis Batch: 12855

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	499	1262	F1	mg/Kg		246	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1 *- F2	499	1122	F1	mg/Kg		220	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	59	S1-	70 - 130
o-Terphenyl	50	S1-	70 - 130

Lab Sample ID: 890-1608-A-5-F MSD
Matrix: Solid
Analysis Batch: 12855

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12848

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	499	396.3	F2	mg/Kg		73	70 - 130	104	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1 *- F2	499	78.61	F1 F2	mg/Kg		10	70 - 130	174	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	60	S1-	70 - 130
o-Terphenyl	58	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12937/1-A
Matrix: Solid
Analysis Batch: 13165

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/24/21 02:16	1

Lab Sample ID: LCS 880-12937/2-A
Matrix: Solid
Analysis Batch: 13165

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	260.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-12937/3-A
Matrix: Solid
Analysis Batch: 13165

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	259.8		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-8571-A-1-B MS
Matrix: Solid
Analysis Batch: 13165

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	7.24		252	267.2		mg/Kg		103	90 - 110		

Lab Sample ID: 880-8571-A-1-C MSD
Matrix: Solid
Analysis Batch: 13165

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7.24		252	266.7		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

GC VOA

Prep Batch: 12797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Total/NA	Solid	5035	
890-1605-2	FS58	Total/NA	Solid	5035	
890-1605-3	SW45	Total/NA	Solid	5035	
890-1605-4	SW46	Total/NA	Solid	5035	
MB 880-12797/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12797/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12797/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1605-1 MS	FS54	Total/NA	Solid	5035	
890-1605-1 MSD	FS54	Total/NA	Solid	5035	

Analysis Batch: 12903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Total/NA	Solid	8021B	12797
890-1605-2	FS58	Total/NA	Solid	8021B	12797
890-1605-3	SW45	Total/NA	Solid	8021B	12797
890-1605-4	SW46	Total/NA	Solid	8021B	12797
MB 880-12797/5-A	Method Blank	Total/NA	Solid	8021B	12797
LCS 880-12797/1-A	Lab Control Sample	Total/NA	Solid	8021B	12797
LCSD 880-12797/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12797
890-1605-1 MS	FS54	Total/NA	Solid	8021B	12797
890-1605-1 MSD	FS54	Total/NA	Solid	8021B	12797

Analysis Batch: 12945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Total/NA	Solid	Total BTEX	
890-1605-2	FS58	Total/NA	Solid	Total BTEX	
890-1605-3	SW45	Total/NA	Solid	Total BTEX	
890-1605-4	SW46	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Total/NA	Solid	8015 NM	
890-1605-2	FS58	Total/NA	Solid	8015 NM	
890-1605-3	SW45	Total/NA	Solid	8015 NM	
890-1605-4	SW46	Total/NA	Solid	8015 NM	

Prep Batch: 12848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Total/NA	Solid	8015NM Prep	
890-1605-2	FS58	Total/NA	Solid	8015NM Prep	
890-1605-3	SW45	Total/NA	Solid	8015NM Prep	
890-1605-4	SW46	Total/NA	Solid	8015NM Prep	
MB 880-12848/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12848/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-12848/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1608-A-5-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1608-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

GC Semi VOA

Analysis Batch: 12855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Total/NA	Solid	8015B NM	12848
890-1605-2	FS58	Total/NA	Solid	8015B NM	12848
890-1605-3	SW45	Total/NA	Solid	8015B NM	12848
890-1605-4	SW46	Total/NA	Solid	8015B NM	12848
MB 880-12848/1-A	Method Blank	Total/NA	Solid	8015B NM	12848
LCS 880-12848/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12848
LCSD 880-12848/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12848
890-1608-A-5-F MS	Matrix Spike	Total/NA	Solid	8015B NM	12848
890-1608-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12848

HPLC/IC

Leach Batch: 12937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Soluble	Solid	DI Leach	
890-1605-2	FS58	Soluble	Solid	DI Leach	
890-1605-3	SW45	Soluble	Solid	DI Leach	
890-1605-4	SW46	Soluble	Solid	DI Leach	
MB 880-12937/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12937/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12937/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8571-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-8571-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 13165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1605-1	FS54	Soluble	Solid	300.0	12937
890-1605-2	FS58	Soluble	Solid	300.0	12937
890-1605-3	SW45	Soluble	Solid	300.0	12937
890-1605-4	SW46	Soluble	Solid	300.0	12937
MB 880-12937/1-A	Method Blank	Soluble	Solid	300.0	12937
LCS 880-12937/2-A	Lab Control Sample	Soluble	Solid	300.0	12937
LCSD 880-12937/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12937
880-8571-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	12937
880-8571-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12937

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Client Sample ID: FS54
Date Collected: 11/18/21 10:51
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1605-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 14:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/22/21 16:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/22/21 13:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12848	11/21/21 12:42	AJ	XEN MID
Total/NA	Analysis	8015B NM		1	12855	11/22/21 16:49	AJ	XEN MID
Soluble	Leach	DI Leach			12937	11/22/21 12:26	CA	XEN MID
Soluble	Analysis	300.0		1	13165	11/24/21 04:45	SC	XEN MID

Client Sample ID: FS58
Date Collected: 11/18/21 14:10
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1605-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 14:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/22/21 16:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/22/21 13:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12848	11/21/21 12:42	AJ	XEN MID
Total/NA	Analysis	8015B NM		1	12855	11/22/21 17:11	AJ	XEN MID
Soluble	Leach	DI Leach			12937	11/22/21 12:26	CA	XEN MID
Soluble	Analysis	300.0		1	13165	11/24/21 04:56	SC	XEN MID

Client Sample ID: SW45
Date Collected: 11/18/21 14:12
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1605-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 18:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/22/21 16:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/22/21 13:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12848	11/21/21 12:42	AJ	XEN MID
Total/NA	Analysis	8015B NM		1	12855	11/22/21 17:32	AJ	XEN MID
Soluble	Leach	DI Leach			12937	11/22/21 12:26	CA	XEN MID
Soluble	Analysis	300.0		1	13165	11/24/21 05:07	SC	XEN MID

Client Sample ID: SW46
Date Collected: 11/18/21 14:14
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1605-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 18:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/22/21 16:47	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Client Sample ID: SW46

Date Collected: 11/18/21 14:14
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1605-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	12781	11/22/21 13:12	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12848	11/21/21 12:42	AJ	XEN MID
Total/NA	Analysis	8015B NM		1	12855	11/22/21 17:53	AJ	XEN MID
Soluble	Leach	DI Leach			12937	11/22/21 12:26	CA	XEN MID
Soluble	Analysis	300.0		1	13165	11/24/21 05:19	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1605-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1605-1	FS54	Solid	11/18/21 10:51	11/19/21 08:37	1
890-1605-2	FS58	Solid	11/18/21 14:10	11/19/21 08:37	2
890-1605-3	SW45	Solid	11/18/21 14:12	11/19/21 08:37	0 - 2
890-1605-4	SW46	Solid	11/18/21 14:14	11/19/21 08:37	0 - 2

Page 107 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

11/24/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☐
P.O. Number:	CC: 1138871001	Rush:	24hr
Sampler's Name:	Alexis Castro	Due Date:	11/22/21

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	2.6/2.4	Thermometer ID		
Received Intact:	Yes No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS54	S	11/18/2021	1051	1'	1	x	x	x	COMPOSITE
FS58	S	11/18/2021	1410	2'	1	x	x	x	COMPOSITE
SW45	S	11/18/2021	1412	0-2'	1	x	x	x	COMPOSITE
SW46	S	11/18/2021	1414	0-2'	1	x	x	x	COMPOSITE

890-1605 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Page 21 of 24

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11/19/21 9:37			
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 108 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad, NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s)	COC No: 890-516 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1605-1
Address: 1211 W Florida Ave,	Due Date Requested: 11/23/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS54 (890-1605-1)	11/18/21	10 51 Mountain		Solid			X	X	X	X	X	1	
FS58 (890-1605-2)	11/18/21	14 10 Mountain		Solid			X	X	X	X	X	1	
SW45 (890-1605-3)	11/18/21	14 12 Mountain		Solid			X	X	X	X	X	1	
SW46 (890-1605-4)	11/18/21	14 14 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A HCL	M Hexane		
B NaOH	N - None		
C Zn Acetate	O AsNaO2		
D Nitric Acid	P Na2O4S		
E NaHSO4	Q Na2SO3		
F MeOH	R Na2S2O3		
G Amchlor	S H2SO4		
H Ascorbic Acid	T TSP Dodecahydrate		
I Ice	U Acetone		
J - DI Water	V MCAA		
K EDTA	W pH 4-5		
L EDA	Z other (specify)		

Other:

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Cloe Cuff	11·19·21		J Kramer	11·22·21	
2					745	
3						

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
		4.7/4.3

Ver 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM
Released to Imaging: 4/8/2022 2:26:11 PM
11/24/2021
Page 22 of 24

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1605-1
SDG Number: te012929159

Login Number: 1605
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1605-1
SDG Number: te012929159

Login Number: 1605
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/22/21 08:09 AM

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	4.2/4.3
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1726-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
12/23/2021 11:48:34 AM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1726-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 13
QC Sample Results 15
QC Association Summary 21
Lab Chronicle 25
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 32

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1726-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Job ID: 890-1726-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1726-1

Receipt
The samples were received on 12/16/2021 8:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15093 and analytical batch 880-15124 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. The associated samples are: SW55 (890-1726-7), SW56 (890-1726-8), FS55 (890-1726-9), (890-1726-A-7-F MS) and (890-1726-A-7-G MSD).

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: FS58

Lab Sample ID: 890-1726-1
Matrix: Solid
Date Collected: 12/15/21 10:30
Date Received: 12/16/21 08:30
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 14:38	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 14:38	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 14:38	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/17/21 07:45	12/17/21 14:38	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 14:38	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/17/21 07:45	12/17/21 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*149*	*S1+*	*70 - 130*	*12/17/21 07:45*	*12/17/21 14:38*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*12/17/21 07:45*	*12/17/21 14:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**466**		49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 20:04	1
Diesel Range Organics (Over C10-C28)	**466**		49.9		mg/Kg		12/17/21 14:20	12/20/21 20:04	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*12/17/21 14:20*	*12/20/21 20:04*	*1*
o-Terphenyl	*114*		*70 - 130*	*12/17/21 14:20*	*12/20/21 20:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**548**		5.00		mg/Kg			12/20/21 13:02	1

Client Sample ID: FS57

Lab Sample ID: 890-1726-2
Matrix: Solid
Date Collected: 12/15/21 10:40
Date Received: 12/16/21 08:30
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 14:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 14:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 14:59	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/17/21 07:45	12/17/21 14:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 14:59	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/17/21 07:45	12/17/21 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*12/17/21 07:45*	*12/17/21 14:59*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: FS57

Lab Sample ID: 890-1726-2
Matrix: Solid

Date Collected: 12/15/21 10:40
Date Received: 12/16/21 08:30
Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*12/17/21 07:45*	*12/17/21 14:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**130**		50.0	mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 20:24	1
Diesel Range Organics (Over C10-C28)	**130**		50.0	mg/Kg		12/17/21 14:20	12/20/21 20:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 20:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*108*		*70 - 130*	*12/17/21 14:20*	*12/20/21 20:24*	*1*
o-Terphenyl	*109*		*70 - 130*	*12/17/21 14:20*	*12/20/21 20:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1180**		5.00	mg/Kg			12/20/21 13:09	1

Client Sample ID: SW51

Lab Sample ID: 890-1726-3
Matrix: Solid

Date Collected: 12/15/21 11:00
Date Received: 12/16/21 08:30
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:45	12/17/21 15:19	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:45	12/17/21 15:19	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:45	12/17/21 15:19	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		12/17/21 07:45	12/17/21 15:19	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:45	12/17/21 15:19	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		12/17/21 07:45	12/17/21 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*12/17/21 07:45*	*12/17/21 15:19*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*12/17/21 07:45*	*12/17/21 15:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/23/21 12:30	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW51

Lab Sample ID: 890-1726-3
Matrix: Solid
Date Collected: 12/15/21 11:00
Date Received: 12/16/21 08:30
Sample Depth: 0 - 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 20:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 20:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*12/17/21 14:20*	*12/20/21 20:45*	*1*
o-Terphenyl	*113*		*70 - 130*	*12/17/21 14:20*	*12/20/21 20:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.3**		4.99		mg/Kg			12/20/21 13:15	1

Client Sample ID: SW52

Lab Sample ID: 890-1726-4
Matrix: Solid
Date Collected: 12/15/21 11:05
Date Received: 12/16/21 08:30
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/17/21 07:45	12/17/21 15:39	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/17/21 07:45	12/17/21 15:39	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/17/21 07:45	12/17/21 15:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/17/21 07:45	12/17/21 15:39	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/17/21 07:45	12/17/21 15:39	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/17/21 07:45	12/17/21 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*12/17/21 07:45*	*12/17/21 15:39*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*12/17/21 07:45*	*12/17/21 15:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 12:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 12:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*12/21/21 07:55*	*12/21/21 12:45*	*1*
o-Terphenyl	*107*		*70 - 130*	*12/21/21 07:55*	*12/21/21 12:45*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW52

Lab Sample ID: 890-1726-4
Matrix: Solid
Date Collected: 12/15/21 11:05
Date Received: 12/16/21 08:30
Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.2		4.98		mg/Kg			12/20/21 13:22	1

Client Sample ID: FS56

Lab Sample ID: 890-1726-5
Matrix: Solid
Date Collected: 12/15/21 12:35
Date Received: 12/16/21 08:30
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 16:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 16:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 16:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/17/21 07:45	12/17/21 16:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 16:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/17/21 07:45	12/17/21 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*12/17/21 07:45*	*12/17/21 16:00*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*12/17/21 07:45*	*12/17/21 16:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 13:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 13:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*12/21/21 07:55*	*12/21/21 13:41*	*1*
o-Terphenyl	*109*		*70 - 130*	*12/21/21 07:55*	*12/21/21 13:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	484		4.98		mg/Kg			12/18/21 18:45	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW54

Lab Sample ID: 890-1726-6
Matrix: Solid
Date Collected: 12/15/21 12:55
Date Received: 12/16/21 08:30
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 17:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 17:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 17:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/17/21 07:45	12/17/21 17:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:45	12/17/21 17:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/17/21 07:45	12/17/21 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*12/17/21 07:45*	*12/17/21 17:22*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*12/17/21 07:45*	*12/17/21 17:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 14:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 14:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*12/21/21 07:55*	*12/21/21 14:02*	*1*
o-Terphenyl	*93*		*70 - 130*	*12/21/21 07:55*	*12/21/21 14:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**375**		4.95		mg/Kg			12/18/21 18:53	1

Client Sample ID: SW55

Lab Sample ID: 890-1726-7
Matrix: Solid
Date Collected: 12/15/21 13:25
Date Received: 12/16/21 08:30
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 17:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 17:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 17:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/17/21 07:45	12/17/21 17:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:45	12/17/21 17:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/17/21 07:45	12/17/21 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*12/17/21 07:45*	*12/17/21 17:43*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW55

Lab Sample ID: 890-1726-7
Matrix: Solid
Date Collected: 12/15/21 13:25
Date Received: 12/16/21 08:30
Sample Depth: 0 - 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*12/17/21 07:45*	*12/17/21 17:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**286**		50.0	mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/21/21 07:55	12/21/21 16:26	1
Diesel Range Organics (Over C10-C28)	**286**		50.0	mg/Kg		12/21/21 07:55	12/21/21 16:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/21/21 07:55	12/21/21 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*115*		*70 - 130*	*12/21/21 07:55*	*12/21/21 16:26*	*1*
o-Terphenyl	*106*		*70 - 130*	*12/21/21 07:55*	*12/21/21 16:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.8**	**F1**	5.00	mg/Kg			12/18/21 19:02	1

Client Sample ID: SW56

Lab Sample ID: 890-1726-8
Matrix: Solid
Date Collected: 12/15/21 13:35
Date Received: 12/16/21 08:30
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 18:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 18:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 18:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/17/21 07:45	12/17/21 18:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 18:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/17/21 07:45	12/17/21 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*12/17/21 07:45*	*12/17/21 18:03*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*12/17/21 07:45*	*12/17/21 18:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/23/21 12:30	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW56

Lab Sample ID: 890-1726-8
Matrix: Solid
Date Collected: 12/15/21 13:35
Date Received: 12/16/21 08:30
Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 16:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 16:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*12/21/21 07:55*	*12/21/21 16:46*	*1*
o-Terphenyl	*102*		*70 - 130*	*12/21/21 07:55*	*12/21/21 16:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**389**		4.98		mg/Kg			12/18/21 19:43	1

Client Sample ID: FS55

Lab Sample ID: 890-1726-9
Matrix: Solid
Date Collected: 12/15/21 13:55
Date Received: 12/16/21 08:30
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 18:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 18:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 18:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/17/21 07:45	12/17/21 18:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 18:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/17/21 07:45	12/17/21 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*155*	*S1+*	*70 - 130*	*12/17/21 07:45*	*12/17/21 18:24*	*1*
1,4-Difluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*12/17/21 07:45*	*12/17/21 18:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 17:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 17:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*12/21/21 07:55*	*12/21/21 17:07*	*1*
o-Terphenyl	*100*		*70 - 130*	*12/21/21 07:55*	*12/21/21 17:07*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: FS55
Date Collected: 12/15/21 13:55
Date Received: 12/16/21 08:30
Sample Depth: 4

Lab Sample ID: 890-1726-9
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	293		4.97		mg/Kg			12/18/21 19:52	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9270-A-21-D MS	Matrix Spike	109	100
880-9270-A-21-E MSD	Matrix Spike Duplicate	106	95
890-1726-1	FS58	149 S1+	96
890-1726-2	FS57	117	106
890-1726-3	SW51	121	110
890-1726-4	SW52	121	110
890-1726-5	FS56	139 S1+	104
890-1726-6	SW54	121	112
890-1726-7	SW55	112	95
890-1726-8	SW56	114	104
890-1726-9	FS55	155 S1+	140 S1+
LCS 880-14948/1-A	Lab Control Sample	103	97
LCSD 880-14948/2-A	Lab Control Sample Dup	102	95
MB 880-14948/5-A	Method Blank	115	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9504-A-1-K MS	Matrix Spike	84	83
880-9504-A-1-L MSD	Matrix Spike Duplicate	86	85
890-1726-1	FS58	119	114
890-1726-2	FS57	108	109
890-1726-3	SW51	113	113
890-1726-4	SW52	112	107
890-1726-5	FS56	116	109
890-1726-6	SW54	101	93
890-1726-7	SW55	115	106
890-1726-8	SW56	106	102
890-1726-9	FS55	103	100
890-1727-A-21-I MS	Matrix Spike	113	98
890-1727-A-21-J MSD	Matrix Spike Duplicate	111	97

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-15090/2-A	Lab Control Sample	100	97
LCS 880-15229/2-A	Lab Control Sample	104	107

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1726-1
Project/Site: Ross Ranch 6 SDG: te012929159

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)								
LCSD 880-15090/3-A	Lab Control Sample Dup	110	116								
LCSD 880-15229/3-A	Lab Control Sample Dup	113	118								
MB 880-15090/1-A	Method Blank	142 S1+	233 S1+								
MB 880-15229/1-A	Method Blank	135 S1+	131 S1+								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14948/5-A
Matrix: Solid
Analysis Batch: 15017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/17/21 07:45	12/17/21 11:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/17/21 07:45	12/17/21 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*12/17/21 07:45*	*12/17/21 11:31*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*12/17/21 07:45*	*12/17/21 11:31*	*1*

Lab Sample ID: LCS 880-14948/1-A
Matrix: Solid
Analysis Batch: 15017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14948

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07475		mg/Kg		75	70 - 130		
Toluene			0.100	0.07368		mg/Kg		74	70 - 130		
Ethylbenzene			0.100	0.07658		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1602		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.07919		mg/Kg		79	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-14948/2-A
Matrix: Solid
Analysis Batch: 15017

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14948

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07437		mg/Kg		74	70 - 130	1	35
Toluene			0.100	0.07413		mg/Kg		74	70 - 130	1	35
Ethylbenzene			0.100	0.07081		mg/Kg		71	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1468		mg/Kg		73	70 - 130	9	35
o-Xylene			0.100	0.07575		mg/Kg		76	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-9270-A-21-D MS
Matrix: Solid
Analysis Batch: 15017

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.0994	0.06210	F1	mg/Kg		62	70 - 130		
Toluene	<0.00199	U F1	0.0994	0.06033	F1	mg/Kg		61	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

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

Lab Sample ID: 880-9270-A-21-D MS
Matrix: Solid
Analysis Batch: 15017

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.0994	0.06165	F1	mg/Kg		62	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1291	F1	mg/Kg		65	70 - 130
o-Xylene	<0.00199	U F1	0.0994	0.06691	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-9270-A-21-E MSD
Matrix: Solid
Analysis Batch: 15017

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14948

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.06118	F1	mg/Kg		61	70 - 130	2	35
Toluene	<0.00199	U F1	0.100	0.06189	F1	mg/Kg		62	70 - 130	3	35
Ethylbenzene	<0.00199	U F1	0.100	0.06189	F1	mg/Kg		62	70 - 130	0	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1306	F1	mg/Kg		65	70 - 130	1	35
o-Xylene	<0.00199	U F1	0.100	0.06416	F1	mg/Kg		64	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

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

Lab Sample ID: MB 880-15090/1-A
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15090

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 12:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 12:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 12:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*12/17/21 14:20*	*12/20/21 12:12*	*1*
o-Terphenyl	*233*	*S1+*	*70 - 130*	*12/17/21 14:20*	*12/20/21 12:12*	*1*

Lab Sample ID: LCS 880-15090/2-A
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	883.9		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	935.7		mg/Kg		94	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

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

Lab Sample ID: LCS 880-15090/2-A
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15090

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-15090/3-A
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15090

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	924.4		mg/Kg		92	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	953.9		mg/Kg		95	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: 890-1727-A-21-I MS
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	1328		mg/Kg		129	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	1339	F1	mg/Kg		134	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-1727-A-21-J MSD
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 15090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	995	1392	F1	mg/Kg		136	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	995	1328	F1	mg/Kg		133	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	97		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

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

Lab Sample ID: MB 880-15229/1-A
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15229

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 09:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 09:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 09:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*12/21/21 07:55*	*12/21/21 09:16*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*12/21/21 07:55*	*12/21/21 09:16*	*1*

Lab Sample ID: LCS 880-15229/2-A
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15229

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	884.2		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	919.9		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-15229/3-A
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15229

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	922.3		mg/Kg		92	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	943.9		mg/Kg		94	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: 880-9504-A-1-K MS
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1046		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	812.5		mg/Kg		82	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

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

Lab Sample ID: 880-9504-A-1-K MS
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15229

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 880-9504-A-1-L MSD
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 15229

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	1069		mg/Kg		104	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	995	836.9		mg/Kg		84	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15093/1-A
Matrix: Solid
Analysis Batch: 15124

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/18/21 16:36	1

Lab Sample ID: LCS 880-15093/2-A
Matrix: Solid
Analysis Batch: 15124

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	257.8		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-15093/3-A
Matrix: Solid
Analysis Batch: 15124

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	258.2		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-1726-7 MS
Matrix: Solid
Analysis Batch: 15124

Client Sample ID: SW55
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	50.8	F1	250	331.3	F1	mg/Kg		112	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1726-7 MSD
Matrix: Solid
Analysis Batch: 15124

Client Sample ID: SW55
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	50.8	F1	250	330.8	F1	mg/Kg		112	90 - 110	0	20

Lab Sample ID: MB 880-15089/1-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/20/21 10:02	1

Lab Sample ID: LCS 880-15089/2-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.7		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-15089/3-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	271.6		mg/Kg		109	90 - 110	2	20

Lab Sample ID: 890-1723-A-4-E MS
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1130		250	1377	4	mg/Kg		100	90 - 110		

Lab Sample ID: 890-1723-A-4-F MSD
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1130		250	1372	4	mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

GC VOA

Prep Batch: 14948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Total/NA	Solid	5035	
890-1726-2	FS57	Total/NA	Solid	5035	
890-1726-3	SW51	Total/NA	Solid	5035	
890-1726-4	SW52	Total/NA	Solid	5035	
890-1726-5	FS56	Total/NA	Solid	5035	
890-1726-6	SW54	Total/NA	Solid	5035	
890-1726-7	SW55	Total/NA	Solid	5035	
890-1726-8	SW56	Total/NA	Solid	5035	
890-1726-9	FS55	Total/NA	Solid	5035	
MB 880-14948/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14948/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14948/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9270-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
880-9270-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Total/NA	Solid	8021B	14948
890-1726-2	FS57	Total/NA	Solid	8021B	14948
890-1726-3	SW51	Total/NA	Solid	8021B	14948
890-1726-4	SW52	Total/NA	Solid	8021B	14948
890-1726-5	FS56	Total/NA	Solid	8021B	14948
890-1726-6	SW54	Total/NA	Solid	8021B	14948
890-1726-7	SW55	Total/NA	Solid	8021B	14948
890-1726-8	SW56	Total/NA	Solid	8021B	14948
890-1726-9	FS55	Total/NA	Solid	8021B	14948
MB 880-14948/5-A	Method Blank	Total/NA	Solid	8021B	14948
LCS 880-14948/1-A	Lab Control Sample	Total/NA	Solid	8021B	14948
LCSD 880-14948/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14948
880-9270-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	14948
880-9270-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14948

Analysis Batch: 15380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Total/NA	Solid	Total BTEX	
890-1726-2	FS57	Total/NA	Solid	Total BTEX	
890-1726-3	SW51	Total/NA	Solid	Total BTEX	
890-1726-4	SW52	Total/NA	Solid	Total BTEX	
890-1726-5	FS56	Total/NA	Solid	Total BTEX	
890-1726-6	SW54	Total/NA	Solid	Total BTEX	
890-1726-7	SW55	Total/NA	Solid	Total BTEX	
890-1726-8	SW56	Total/NA	Solid	Total BTEX	
890-1726-9	FS55	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Total/NA	Solid	8015NM Prep	
890-1726-2	FS57	Total/NA	Solid	8015NM Prep	
890-1726-3	SW51	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

GC Semi VOA (Continued)

Prep Batch: 15090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15090/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15090/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1727-A-21-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1727-A-21-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Total/NA	Solid	8015B NM	15090
890-1726-2	FS57	Total/NA	Solid	8015B NM	15090
890-1726-3	SW51	Total/NA	Solid	8015B NM	15090
MB 880-15090/1-A	Method Blank	Total/NA	Solid	8015B NM	15090
LCS 880-15090/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15090
LCSD 880-15090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15090
890-1727-A-21-I MS	Matrix Spike	Total/NA	Solid	8015B NM	15090
890-1727-A-21-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15090

Prep Batch: 15229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-4	SW52	Total/NA	Solid	8015NM Prep	
890-1726-5	FS56	Total/NA	Solid	8015NM Prep	
890-1726-6	SW54	Total/NA	Solid	8015NM Prep	
890-1726-7	SW55	Total/NA	Solid	8015NM Prep	
890-1726-8	SW56	Total/NA	Solid	8015NM Prep	
890-1726-9	FS55	Total/NA	Solid	8015NM Prep	
MB 880-15229/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15229/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15229/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9504-A-1-K MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-9504-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-4	SW52	Total/NA	Solid	8015B NM	15229
890-1726-5	FS56	Total/NA	Solid	8015B NM	15229
890-1726-6	SW54	Total/NA	Solid	8015B NM	15229
890-1726-7	SW55	Total/NA	Solid	8015B NM	15229
890-1726-8	SW56	Total/NA	Solid	8015B NM	15229
890-1726-9	FS55	Total/NA	Solid	8015B NM	15229
MB 880-15229/1-A	Method Blank	Total/NA	Solid	8015B NM	15229
LCS 880-15229/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15229
LCSD 880-15229/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15229
880-9504-A-1-K MS	Matrix Spike	Total/NA	Solid	8015B NM	15229
880-9504-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15229

Analysis Batch: 15281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Total/NA	Solid	8015 NM	
890-1726-2	FS57	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

GC Semi VOA

Analysis Batch: 15468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-3	SW51	Total/NA	Solid	8015 NM	
890-1726-4	SW52	Total/NA	Solid	8015 NM	
890-1726-5	FS56	Total/NA	Solid	8015 NM	
890-1726-6	SW54	Total/NA	Solid	8015 NM	
890-1726-7	SW55	Total/NA	Solid	8015 NM	
890-1726-8	SW56	Total/NA	Solid	8015 NM	
890-1726-9	FS55	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Soluble	Solid	DI Leach	
890-1726-2	FS57	Soluble	Solid	DI Leach	
890-1726-3	SW51	Soluble	Solid	DI Leach	
890-1726-4	SW52	Soluble	Solid	DI Leach	
MB 880-15089/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15089/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15089/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1723-A-4-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1723-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 15093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-5	FS56	Soluble	Solid	DI Leach	
890-1726-6	SW54	Soluble	Solid	DI Leach	
890-1726-7	SW55	Soluble	Solid	DI Leach	
890-1726-8	SW56	Soluble	Solid	DI Leach	
890-1726-9	FS55	Soluble	Solid	DI Leach	
MB 880-15093/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15093/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15093/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1726-7 MS	SW55	Soluble	Solid	DI Leach	
890-1726-7 MSD	SW55	Soluble	Solid	DI Leach	

Analysis Batch: 15124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-5	FS56	Soluble	Solid	300.0	15093
890-1726-6	SW54	Soluble	Solid	300.0	15093
890-1726-7	SW55	Soluble	Solid	300.0	15093
890-1726-8	SW56	Soluble	Solid	300.0	15093
890-1726-9	FS55	Soluble	Solid	300.0	15093
MB 880-15093/1-A	Method Blank	Soluble	Solid	300.0	15093
LCS 880-15093/2-A	Lab Control Sample	Soluble	Solid	300.0	15093
LCSD 880-15093/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15093
890-1726-7 MS	SW55	Soluble	Solid	300.0	15093
890-1726-7 MSD	SW55	Soluble	Solid	300.0	15093

Analysis Batch: 15128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-1	FS58	Soluble	Solid	300.0	15089

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

HPLC/IC (Continued)

Analysis Batch: 15128 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1726-2	FS57	Soluble	Solid	300.0	15089
890-1726-3	SW51	Soluble	Solid	300.0	15089
890-1726-4	SW52	Soluble	Solid	300.0	15089
MB 880-15089/1-A	Method Blank	Soluble	Solid	300.0	15089
LCS 880-15089/2-A	Lab Control Sample	Soluble	Solid	300.0	15089
LCSD 880-15089/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15089
890-1723-A-4-E MS	Matrix Spike	Soluble	Solid	300.0	15089
890-1723-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15089

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: FS58 — Lab Sample ID: 890-1726-1

Date Collected: 12/15/21 10:30 — **Matrix: Solid**
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 14:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15096	12/20/21 20:04	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 13:02	CH	XEN MID

Client Sample ID: FS57 — Lab Sample ID: 890-1726-2

Date Collected: 12/15/21 10:40 — **Matrix: Solid**
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 14:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15096	12/20/21 20:24	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 13:09	CH	XEN MID

Client Sample ID: SW51 — Lab Sample ID: 890-1726-3

Date Collected: 12/15/21 11:00 — **Matrix: Solid**
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 15:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15096	12/20/21 20:45	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 13:15	CH	XEN MID

Client Sample ID: SW52 — Lab Sample ID: 890-1726-4

Date Collected: 12/15/21 11:05 — **Matrix: Solid**
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 15:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW52
Date Collected: 12/15/21 11:05
Date Received: 12/16/21 08:30

Lab Sample ID: 890-1726-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 12:45	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 13:22	CH	XEN MID

Client Sample ID: FS56
Date Collected: 12/15/21 12:35
Date Received: 12/16/21 08:30

Lab Sample ID: 890-1726-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 16:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1	15124	12/18/21 18:45	SC	XEN MID

Client Sample ID: SW54
Date Collected: 12/15/21 12:55
Date Received: 12/16/21 08:30

Lab Sample ID: 890-1726-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 17:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1	15124	12/18/21 18:53	SC	XEN MID

Client Sample ID: SW55
Date Collected: 12/15/21 13:25
Date Received: 12/16/21 08:30

Lab Sample ID: 890-1726-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 17:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 16:26	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Client Sample ID: SW55

Lab Sample ID: 890-1726-7
Matrix: Solid
Date Collected: 12/15/21 13:25
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1	15124	12/18/21 19:02	SC	XEN MID

Client Sample ID: SW56

Lab Sample ID: 890-1726-8
Matrix: Solid
Date Collected: 12/15/21 13:35
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 18:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 16:46	AJ	XEN MID
Soluble	Leach	DI Leach			15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1	15124	12/18/21 19:43	SC	XEN MID

Client Sample ID: FS55

Lab Sample ID: 890-1726-9
Matrix: Solid
Date Collected: 12/15/21 13:55
Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14948	12/17/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 18:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 17:07	AJ	XEN MID
Soluble	Leach	DI Leach			15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1	15124	12/18/21 19:52	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1726-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1726-1	FS58	Solid	12/15/21 10:30	12/16/21 08:30	4
890-1726-2	FS57	Solid	12/15/21 10:40	12/16/21 08:30	4
890-1726-3	SW51	Solid	12/15/21 11:00	12/16/21 08:30	0 - 4
890-1726-4	SW52	Solid	12/15/21 11:05	12/16/21 08:30	0 - 4
890-1726-5	FS56	Solid	12/15/21 12:35	12/16/21 08:30	3
890-1726-6	SW54	Solid	12/15/21 12:55	12/16/21 08:30	0 - 3
890-1726-7	SW55	Solid	12/15/21 13:25	12/16/21 08:30	0 - 3
890-1726-8	SW56	Solid	12/15/21 13:35	12/16/21 08:30	0 - 3
890-1726-9	FS55	Solid	12/15/21 13:55	12/16/21 08:30	4

Page 141 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

12/23/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.2/3.0	Thermometer ID		
Received Intact:	(Yes) No	TWN-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-1726 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS58	S	12/15/2021	1030	4'	1	x	x	x	COMPOSITE
FS57	S	12/15/2021	1040	4'	1	x	x	x	COMPOSITE
SW51	S	12/15/2021	1100	0-4'	1	x	x	x	COMPOSITE
SW52	S	12/15/2021	1105	0-4'	1	x	x	x	COMPOSITE
FS56	S	12/15/2021	1235	3'	1	x	x	x	COMPOSITE
SW54	S	12/15/2021	1255	0-3'	1	x	x	x	COMPOSITE
SW55	S	12/15/2021	1325	0-3'	1	x	x	x	COMPOSITE
SW56	S	12/15/2021	1335	0-3'	1	x	x	x	COMPOSITE
FS55	S	12/15/2021	1355	4'	1	x	x	x	COMPOSITE

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12.16.21 0830			
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Page 31 of 33

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1726-1
SDG Number: te012929159

Login Number: 1726
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1726-1
SDG Number: te012929159

Login Number: 1726
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 12/17/21 01:55 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1588-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/30/2021 11:02:48 AM

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

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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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1588-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 10
Lab Chronicle 11
Certification Summary 12
Method Summary 13
Sample Summary 14
Chain of Custody 15
Receipt Checklists 17

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1588-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Job ID: 890-1588-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1588-1

Receipt
The sample was received on 11/18/2021 8:39 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 5.6°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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Client Sample ID: FS48

Date Collected: 11/16/21 14:35
Date Received: 11/18/21 08:39
Sample Depth: 4

Lab Sample ID: 890-1588-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 14:44	1
Toluene	**0.00414**		0.00200		mg/Kg		11/19/21 09:45	11/19/21 14:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 14:44	1
m-Xylene & p-Xylene	**0.00801**		0.00400		mg/Kg		11/19/21 09:45	11/19/21 14:44	1
o-Xylene	**0.00391**		0.00200		mg/Kg		11/19/21 09:45	11/19/21 14:44	1
Xylenes, Total	**0.0119**		0.00400		mg/Kg		11/19/21 09:45	11/19/21 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/19/21 09:45*	*11/19/21 14:44*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 14:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0161**		0.00400		mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**763**		49.9		mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/19/21 09:12	11/19/21 18:43	1
Diesel Range Organics (Over C10-C28)	**704**		49.9		mg/Kg		11/19/21 09:12	11/19/21 18:43	1
Oil Range Organics (Over C28-C36)	**58.5**		49.9		mg/Kg		11/19/21 09:12	11/19/21 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/19/21 09:12*	*11/19/21 18:43*	*1*
o-Terphenyl	*122*		*70 - 130*	*11/19/21 09:12*	*11/19/21 18:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.9**		4.98		mg/Kg			11/29/21 16:51	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-1588-1	FS48	93	102										
890-1593-A-1-A MS	Matrix Spike	100	90										
890-1593-A-1-B MSD	Matrix Spike Duplicate	99	94										
LCS 880-12636/1-A	Lab Control Sample	96	89										
LCSD 880-12636/2-A	Lab Control Sample Dup	95	94										
MB 880-12636/5-A	Method Blank	111	98										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-1588-1	FS48	106	122										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12636/5-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12636

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*

Lab Sample ID: LCS 880-12636/1-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08879		mg/Kg		89	70 - 130		
Toluene			0.100	0.07904		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1751		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08756		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-12636/2-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09392		mg/Kg		94	70 - 130	6	35
Toluene			0.100	0.08333		mg/Kg		83	70 - 130	5	35
Ethylbenzene			0.100	0.08763		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1689		mg/Kg		84	70 - 130	4	35
o-Xylene			0.100	0.08523		mg/Kg		85	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09093		mg/Kg					
Toluene	<0.00200	U	0.100	0.08477		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

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

Lab Sample ID: 890-1593-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12713 — **Prep Batch: 12636**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.100	0.08814		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1714		mg/Kg					
o-Xylene	<0.00200	U	0.100	0.08719		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 12713

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12802/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 13318

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/29/21 12:52	1

Lab Sample ID: LCS 880-12802/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 13318

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	271.1		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-12802/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 13318

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	270.4		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-1589-A-4-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 13318

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	70.0		250	342.1		mg/Kg		109	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1589-A-4-G MSD
Matrix: Solid
Analysis Batch: 13318

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	70.0		250	337.4		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

GC VOA

Prep Batch: 12636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Total/NA	Solid	5035	
MB 880-12636/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Total/NA	Solid	8021B	12636
MB 880-12636/5-A	Method Blank	Total/NA	Solid	8021B	12636
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	8021B	12636
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12636
890-1593-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12636

Analysis Batch: 12945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Total/NA	Solid	8015B NM	12716

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Soluble	Solid	DI Leach	
MB 880-12802/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12802/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12802/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1589-A-4-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1589-A-4-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 13318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1588-1	FS48	Soluble	Solid	300.0	12802
MB 880-12802/1-A	Method Blank	Soluble	Solid	300.0	12802
LCS 880-12802/2-A	Lab Control Sample	Soluble	Solid	300.0	12802
LCSD 880-12802/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12802
890-1589-A-4-F MS	Matrix Spike	Soluble	Solid	300.0	12802
890-1589-A-4-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12802

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Client Sample ID: FS48

Date Collected: 11/16/21 14:35
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1588-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 14:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 18:43	AJ	XEN MID
Soluble	Leach	DI Leach			12802	11/19/21 16:49	SC	XEN MID
Soluble	Analysis	300.0		1	13318	11/29/21 16:51	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1588-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1588-1	FS48	Solid	11/16/21 14:35	11/18/21 08:39	4

Page 158 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

11/30/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	conner.shore@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ TST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Conner Shore	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	5.8/5.6	Thermometer ID	TNM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS48	s	11/16/2021	1435	4'	1	x	x	x	Composite

890-1588 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01
API:30-015-36883

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.18.21 830	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-514 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1588-1
Address: 1211 W Florida Ave	Due Date Requested: 11/24/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
FS48 (890-1588-1)	11/16/21	14 35 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Cue Cup 11:18.21	Date/Time:	Company	Received by: Kramer	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 3.6/3.7

Ver: 06/08/2021

Page 159 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/30/2021
Page 16 of 18
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1588-1
SDG Number: te012929159

Login Number: 1588
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1588-1
SDG Number: te012929159

Login Number: 1588
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/19/21 11:47 AM

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	3.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1586-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/19/2021 7:42:39 PM

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

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

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1586-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1586-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Job ID: 890-1586-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1586-1

Receipt
The sample was received on 11/18/2021 8:39 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 5.6°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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Client Sample ID: SW37

Date Collected: 11/17/21 10:45
Date Received: 11/18/21 08:39
Sample Depth: 0 - 3

Lab Sample ID: 890-1586-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/19/21 09:45	11/19/21 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 13:21*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*11/19/21 09:45*	*11/19/21 13:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/19/21 17:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**380**		49.8		mg/Kg			11/19/21 13:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/19/21 09:12	11/19/21 16:13	1
Diesel Range Organics (Over C10-C28)	**320**		49.8		mg/Kg		11/19/21 09:12	11/19/21 16:13	1
Oil Range Organics (Over C28-C36)	**59.8**		49.8		mg/Kg		11/19/21 09:12	11/19/21 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/19/21 09:12*	*11/19/21 16:13*	*1*
o-Terphenyl	*123*		*70 - 130*	*11/19/21 09:12*	*11/19/21 16:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**477**		4.98		mg/Kg			11/19/21 16:36	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1586-1	SW37	102	109
890-1593-A-1-A MS	Matrix Spike	100	90
890-1593-A-1-B MSD	Matrix Spike Duplicate	99	94
LCS 880-12636/1-A	Lab Control Sample	96	89
LCSD 880-12636/2-A	Lab Control Sample Dup	95	94
MB 880-12636/5-A	Method Blank	111	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1586-1	SW37	108	123
890-1593-A-1-G MS	Matrix Spike	104	110
890-1593-A-1-H MSD	Matrix Spike Duplicate	97	97
LCS 880-12716/2-A	Lab Control Sample	104	112
LCSD 880-12716/3-A	Lab Control Sample Dup	89	95
MB 880-12716/1-A	Method Blank	108	129

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12636/5-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12636

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*

Lab Sample ID: LCS 880-12636/1-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08879		mg/Kg		89	70 - 130		
Toluene			0.100	0.07904		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1751		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08756		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-12636/2-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09392		mg/Kg		94	70 - 130	6	35
Toluene			0.100	0.08333		mg/Kg		83	70 - 130	5	35
Ethylbenzene			0.100	0.08763		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1689		mg/Kg		84	70 - 130	4	35
o-Xylene			0.100	0.08523		mg/Kg		85	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09093		mg/Kg					
Toluene	<0.00200	U	0.100	0.08477		mg/Kg					

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.100	0.08814		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1714		mg/Kg					
o-Xylene	<0.00200	U	0.100	0.08719		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-A MS
Matrix: Solid
Analysis Batch: 12713

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-12716/1-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12716

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/19/21 09:12*	*11/19/21 12:33*	*1*
o-Terphenyl	*129*		*70 - 130*	*11/19/21 09:12*	*11/19/21 12:33*	*1*

Lab Sample ID: LCS 880-12716/2-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12716

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	930.1		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	877.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-12716/3-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12716

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1092		mg/Kg		109	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	840.6		mg/Kg		84	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: 890-1593-A-1-G MS
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12716

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1446	F1	mg/Kg		145	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	912.7		mg/Kg		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-1593-A-1-H MSD
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12716

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1213		mg/Kg		122	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	846.2		mg/Kg		85	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12748/1-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/19/21 16:21	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-12748/2-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-12748/3-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	247.8		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-1586-1 MS
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: SW37
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	477		249	715.1		mg/Kg		96	90 - 110		

Lab Sample ID: 890-1586-1 MSD
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: SW37
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	477		249	714.5		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

GC VOA

Prep Batch: 12636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	5035	
MB 880-12636/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8021B	12636
MB 880-12636/5-A	Method Blank	Total/NA	Solid	8021B	12636
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	8021B	12636
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12636
890-1593-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12636

Analysis Batch: 12817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8015NM Prep	
MB 880-12716/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12716/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-12716/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1593-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1593-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8015B NM	12716
MB 880-12716/1-A	Method Blank	Total/NA	Solid	8015B NM	12716
LCS 880-12716/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12716
LCSD 880-12716/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12716
890-1593-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	12716
890-1593-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12716

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Soluble	Solid	DI Leach	
MB 880-12748/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12748/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12748/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1586-1 MS	SW37	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

HPLC/IC (Continued)

Leach Batch: 12748 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1 MSD	SW37	Soluble	Solid	DI Leach	

Analysis Batch: 12795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Soluble	Solid	300.0	12748
MB 880-12748/1-A	Method Blank	Soluble	Solid	300.0	12748
LCS 880-12748/2-A	Lab Control Sample	Soluble	Solid	300.0	12748
LCSD 880-12748/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12748
890-1586-1 MS	SW37	Soluble	Solid	300.0	12748
890-1586-1 MSD	SW37	Soluble	Solid	300.0	12748

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Client Sample ID: SW37

Date Collected: 11/17/21 10:45
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1586-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 13:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12817	11/19/21 17:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/19/21 13:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 16:13	AJ	XEN MID
Soluble	Leach	DI Leach			12748	11/19/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	12795	11/19/21 16:36	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1586-1
Project/Site: Ross Ranch 6 SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1586-1	SW37	Solid	11/17/21 10:45	11/18/21 08:39	0 - 3

Page 178 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

11/19/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☐
P.O. Number:	CC: 1138871001	Rush:	24hr
Sampler's Name:	Alexis Castro	Due Date:	11/19/21

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	5.8 / 5.6	Thermometer ID	TW-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW37	S	11/17/2021	1045	0-3'	1	x	x	x	COMPOSITE

AC

890-1586 Chain of Custody

Work Order Notes

~~Incident #: nAPP2034638293~~
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11.18.21 839			
3				4		
5				6		

Revised Date 051418 Rev 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-514 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1586-1
Address: 1211 W Florida Ave	Due Date Requested: 11/22/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW37 (890-1586-1)	11/17/21	10 45 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time.	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Clue Cuty 11.18.21			J Kramer		
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.4 3.7

Ver: 06/08/2021

Page 179 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/19/2021
Page 18 of 20
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1586-1
SDG Number: te012929159

Login Number: 1586
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1586-1
SDG Number: te012929159

Login Number: 1586
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/19/21 11:47 AM

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	3.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1606-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
12/13/2021 4:17:01 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1606-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 12
QC Sample Results 14
QC Association Summary 23
Lab Chronicle 27
Certification Summary 30
Method Summary 31
Sample Summary 32
Chain of Custody 33
Receipt Checklists 35

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Job ID: 890-1606-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1606-1

REVISION

The report being provided is a revision of the original report sent on 12/6/2021. The report (revision 1) is being revised due to Per client email, requesting re run on samples FS53, FS55, FS56, FS57, and SW44.

Report revision history

Receipt
The samples were received on 11/19/2021 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS52 (890-1606-1), (MB 880-13088/1-A) and (880-8632-A-1-D). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-13010/2-A), (LCSD 880-13010/3-A) and (MB 880-13010/1-A). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS52

Date Collected: 11/18/21 10:45
Date Received: 11/19/21 08:37
Sample Depth: 2

Lab Sample ID: 890-1606-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
Toluene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
o-Xylene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/23/21 12:37	11/24/21 10:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*11/23/21 12:37*	*11/24/21 10:44*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/23/21 12:37*	*11/24/21 10:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/24/21 02:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/24/21 02:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/24/21 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*11/23/21 14:30*	*11/24/21 02:36*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*11/23/21 14:30*	*11/24/21 02:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**87.6**		5.05		mg/Kg			12/04/21 01:28	1

Client Sample ID: SW43

Date Collected: 11/18/21 10:46
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/22/21 10:00*	*11/22/21 19:39*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: SW43
Date Collected: 11/18/21 10:46
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*11/22/21 10:00*	*11/22/21 19:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/23/21 14:30	11/24/21 03:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/23/21 14:30	11/24/21 03:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/23/21 14:30	11/24/21 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*11/23/21 14:30*	*11/24/21 03:22*	*1*
o-Terphenyl	*127*		*70 - 130*	*11/23/21 14:30*	*11/24/21 03:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60.1**		4.97		mg/Kg			12/04/21 01:40	1

Client Sample ID: SW44
Date Collected: 11/18/21 10:47
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:00*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**112**		49.9		mg/Kg			11/30/21 14:25	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: SW44
Date Collected: 11/18/21 10:47
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 03:26	1
Diesel Range Organics (Over C10-C28)	**112**	**H**	49.9		mg/Kg		12/07/21 09:08	12/09/21 03:26	1
Oil Range Organics (Over C28-C36)	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:26*	*1*
o-Terphenyl	*124*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**137**		4.95		mg/Kg			12/04/21 01:51	1

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
Ethylbenzene	**0.00305**		0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:20*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:20*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**650**		49.8		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U H	49.8		mg/Kg		12/07/21 09:08	12/09/21 03:46	1
Diesel Range Organics (Over C10-C28)	**650**	**H**	49.8		mg/Kg		12/07/21 09:08	12/09/21 03:46	1
Oil Range Organics (Over C28-C36)	<49.8	U H	49.8		mg/Kg		12/07/21 09:08	12/09/21 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:46*	*1*
o-Terphenyl	*104*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:46*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS53

Lab Sample ID: 890-1606-4
Matrix: Solid
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.0**		4.98		mg/Kg			12/04/21 02:02	1

Client Sample ID: FS55

Lab Sample ID: 890-1606-5
Matrix: Solid
Date Collected: 11/18/21 10:52
Date Received: 11/19/21 08:37
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/22/21 10:00	11/22/21 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:41*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**172**		50.0		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:06	1
Diesel Range Organics (Over C10-C28)	**172**	**H**	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:06	1
OII Range Organics (Over C28-C36)	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:06*	*1*
o-Terphenyl	*100*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.9**		4.99		mg/Kg			12/04/21 02:14	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS56

Date Collected: 11/18/21 13:15
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/22/21 10:00	11/22/21 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:02*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**761**		50.0		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:25	1
Diesel Range Organics (Over C10-C28)	**761**	**H**	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:25	1
Oil Range Organics (Over C28-C36)	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:25*	*1*
o-Terphenyl	*107*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.4**		5.00		mg/Kg			12/04/21 02:25	1

Client Sample ID: FS57

Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/22/21 10:00	11/22/21 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:22*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS57

Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**150**		49.9		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 04:45	1
Diesel Range Organics (Over C10-C28)	**150**	**H**	49.9		mg/Kg		12/07/21 09:08	12/09/21 04:45	1
OII Range Organics (Over C28-C36)	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 04:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:45*	*1*
o-Terphenyl	*103*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.5**		5.00		mg/Kg			12/04/21 02:37	1

Client Sample ID: FS59

Date Collected: 11/18/21 14:11
Date Received: 11/19/21 08:37
Sample Depth: 2

Lab Sample ID: 890-1606-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/30/21 14:25	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS59

Date Collected: 11/18/21 14:11
Date Received: 11/19/21 08:37
Sample Depth: 2

Lab Sample ID: 890-1606-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/23/21 08:57	11/23/21 20:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/23/21 08:57	11/23/21 20:41	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/23/21 08:57	11/23/21 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/23/21 08:57*	*11/23/21 20:41*	*1*
o-Terphenyl	*114*		*70 - 130*	*11/23/21 08:57*	*11/23/21 20:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.1**		5.04		mg/Kg			12/03/21 22:08	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1605-A-1-E MS	Matrix Spike	102	96
890-1605-A-1-F MSD	Matrix Spike Duplicate	101	95
890-1606-1	FS52	134 S1+	84
890-1606-1 MS	FS52	125	102
890-1606-1 MSD	FS52	119	95
890-1606-2	SW43	93	83
890-1606-3	SW44	97	97
890-1606-4	FS53	104	123
890-1606-5	FS55	107	96
890-1606-6	FS56	103	108
890-1606-7	FS57	101	100
890-1606-8	FS59	95	103
LCS 880-12797/1-A	Lab Control Sample	93	76
LCS 880-13076/1-A	Lab Control Sample	107	104
LCSD 880-12797/2-A	Lab Control Sample Dup	106	96
LCSD 880-13076/2-A	Lab Control Sample Dup	109	106
MB 880-12797/5-A	Method Blank	108	90
MB 880-13076/5-A	Method Blank	72	96
MB 880-13087/5-A	Method Blank	71	97

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8632-A-1-E MS	Matrix Spike	121	116
880-8632-A-1-F MSD	Matrix Spike Duplicate	123	119
880-8956-A-43-D MS	Matrix Spike	101	99
880-8956-A-43-E MSD	Matrix Spike Duplicate	92	87
890-1602-A-11-H MS	Matrix Spike	97	88
890-1602-A-11-I MSD	Matrix Spike Duplicate	100	89
890-1606-1	FS52	122	144 S1+
890-1606-2	SW43	112	127
890-1606-3	SW44	119	124
890-1606-4	FS53	104	104
890-1606-5	FS55	100	100
890-1606-6	FS56	109	107
890-1606-7	FS57	101	103
890-1606-8	FS59	116	114
LCS 880-13010/2-A	Lab Control Sample	309 S1+	300 S1+
LCS 880-13088/2-A	Lab Control Sample	124	129
LCS 880-14148/2-A	Lab Control Sample	93	90
LCSD 880-13010/3-A	Lab Control Sample Dup	301 S1+	292 S1+
LCSD 880-13088/3-A	Lab Control Sample Dup	117	123
LCSD 880-14148/3-A	Lab Control Sample Dup	97	96

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1606-1
Project/Site: Ross Ranch 6 SDG: te012929159

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
MB 880-13010/1-A	Method Blank	141 S1+	141 S1+
MB 880-13088/1-A	Method Blank	148 S1+	171 S1+
MB 880-14148/1-A	Method Blank	91	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12797/5-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12797

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 13:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*11/22/21 10:00*	*11/22/21 13:46*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/22/21 10:00*	*11/22/21 13:46*	*1*

Lab Sample ID: LCS 880-12797/1-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12797

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08334		mg/Kg		83	70 - 130		
Toluene			0.100	0.08700		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08508		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1602		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08475		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: LCSD 880-12797/2-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12797

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08320		mg/Kg		83	70 - 130	0	35
Toluene			0.100	0.09312		mg/Kg		93	70 - 130	7	35
Ethylbenzene			0.100	0.1027		mg/Kg		103	70 - 130	19	35
m-Xylene & p-Xylene			0.200	0.1878		mg/Kg		94	70 - 130	16	35
o-Xylene			0.100	0.09218		mg/Kg		92	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1605-A-1-E MS
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.0992	0.06875	F1	mg/Kg		69	70 - 130		
Toluene	<0.00199	U F1	0.0992	0.06482	F1	mg/Kg		65	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: 890-1605-A-1-E MS
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene	<0.00199	U F1 F2	0.0992	<0.00198	U F1	mg/Kg		0.7	70 - 130		
m-Xylene & p-Xylene	<0.00398	U F1	0.198	0.1308	F1	mg/Kg		66	70 - 130		
o-Xylene	<0.00199	U F1	0.0992	0.06654	F1	mg/Kg		66	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1605-A-1-F MSD
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.07061		mg/Kg		71	70 - 130	3	35
Toluene	<0.00199	U F1	0.0998	0.06947		mg/Kg		70	70 - 130	7	35
Ethylbenzene	<0.00199	U F1 F2	0.0998	0.07297	F2	mg/Kg		73	70 - 130	196	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1427		mg/Kg		71	70 - 130	9	35
o-Xylene	<0.00199	U F1	0.0998	0.07214		mg/Kg		71	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-13076/5-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13076

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/23/21 12:37	11/24/21 10:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*11/23/21 12:37*	*11/24/21 10:17*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/23/21 12:37*	*11/24/21 10:17*	*1*

Lab Sample ID: LCS 880-13076/1-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13076

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08609		mg/Kg		86	70 - 130		
Toluene			0.100	0.08085		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.07935		mg/Kg		79	70 - 130		
m-Xylene & p-Xylene			0.200	0.1753		mg/Kg		88	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: LCS 880-13076/1-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13076

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.08509		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-13076/2-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13076

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08998		mg/Kg		90	70 - 130	4	35
Toluene			0.100	0.08514		mg/Kg		85	70 - 130	5	35
Ethylbenzene			0.100	0.08446		mg/Kg		84	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1876		mg/Kg		94	70 - 130	7	35
o-Xylene			0.100	0.09093		mg/Kg		91	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1606-1 MS
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: FS52
Prep Type: Total/NA
Prep Batch: 13076

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U F1	0.0996	0.05858	F1	mg/Kg		59	70 - 130		
Toluene	<0.00198	U F1	0.0996	0.06553	F1	mg/Kg		66	70 - 130		
Ethylbenzene	<0.00198	U F1	0.0996	0.06470	F1	mg/Kg		65	70 - 130		
m-Xylene & p-Xylene	<0.00396	U	0.199	0.1440		mg/Kg		72	70 - 130		
o-Xylene	<0.00198	U F1	0.0996	0.06394	F1	mg/Kg		64	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-1606-1 MSD
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: FS52
Prep Type: Total/NA
Prep Batch: 13076

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.100	0.05973	F1	mg/Kg		60	70 - 130	2	35
Toluene	<0.00198	U F1	0.100	0.06784	F1	mg/Kg		68	70 - 130	3	35
Ethylbenzene	<0.00198	U F1	0.100	0.06693	F1	mg/Kg		67	70 - 130	3	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1488		mg/Kg		74	70 - 130	3	35
o-Xylene	<0.00198	U F1	0.100	0.06867	F1	mg/Kg		69	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: 890-1606-1 MSD
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: FS52
Prep Type: Total/NA
Prep Batch: 13076

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-13087/5-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13087

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/23/21 14:25	11/23/21 19:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	11/23/21 14:25	11/23/21 19:58	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/23/21 14:25	11/23/21 19:58	1

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

Lab Sample ID: MB 880-13010/1-A
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13010

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/23/21 08:57	11/23/21 11:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/23/21 08:57	11/23/21 11:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/23/21 08:57	11/23/21 11:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	11/23/21 08:57	11/23/21 11:43	1
o-Terphenyl	141	S1+	70 - 130	11/23/21 08:57	11/23/21 11:43	1

Lab Sample ID: LCS 880-13010/2-A
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13010

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1147		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	972.6		mg/Kg		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	309	S1+	70 - 130
o-Terphenyl	300	S1+	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-13010/3-A
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13010

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1237		mg/Kg		124	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	940.4		mg/Kg		94	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*301*	*S1+*	*70 - 130*
o-Terphenyl	*292*	*S1+*	*70 - 130*

Lab Sample ID: 890-1602-A-11-H MS
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 13010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1281		mg/Kg		129	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1005		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: 890-1602-A-11-I MSD
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 13010

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1182		mg/Kg		118	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1033		mg/Kg		103	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: MB 880-13088/1-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13088

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/23/21 21:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/23/21 21:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/23/21 21:25	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: MB 880-13088/1-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13088

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130	11/23/21 14:30	11/23/21 21:25	1
o-Terphenyl	171	S1+	70 - 130	11/23/21 14:30	11/23/21 21:25	1

Lab Sample ID: LCS 880-13088/2-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	919.5		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1277		mg/Kg		128	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	129		70 - 130

Lab Sample ID: LCSD 880-13088/3-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	927.0		mg/Kg		93	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1254		mg/Kg		125	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 880-8632-A-1-E MS
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 13088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1175		mg/Kg		118	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1137		mg/Kg		111	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	116		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: 880-8632-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13043 — **Prep Batch: 13088**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1191		mg/Kg		119	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1181		mg/Kg		115	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Lab Sample ID: MB 880-14148/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14244 — **Prep Batch: 14148**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/07/21 09:08	12/08/21 20:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/07/21 09:08	12/08/21 20:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/07/21 09:08	12/08/21 20:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*12/07/21 09:08*	*12/08/21 20:33*	*1*
o-Terphenyl	*98*		*70 - 130*	*12/07/21 09:08*	*12/08/21 20:33*	*1*

Lab Sample ID: LCS 880-14148/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14244 — **Prep Batch: 14148**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	978.2		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	926.0		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: LCSD 880-14148/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14244 — **Prep Batch: 14148**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	814.5		mg/Kg		81	70 - 130	18	20
Diesel Range Organics (Over C10-C28)			1000	821.2		mg/Kg		82	70 - 130	12	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-14148/3-A
Matrix: Solid
Analysis Batch: 14244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14148

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 880-8956-A-43-D MS
Matrix: Solid
Analysis Batch: 14244

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14148

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1162		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1078		mg/Kg		106	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-8956-A-43-E MSD
Matrix: Solid
Analysis Batch: 14244

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14148

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1118		mg/Kg		110	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	971.9		mg/Kg		95	70 - 130	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	87		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12986/1-A
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/03/21 20:55	1

Lab Sample ID: LCS 880-12986/2-A
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.1		mg/Kg		100	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-12986/3-A
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.6		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1603-A-11-G MS
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1050		250	1278	4	mg/Kg		89	90 - 110		

Lab Sample ID: 890-1603-A-11-H MSD
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1050		250	1270	4	mg/Kg		86	90 - 110	1	20

Lab Sample ID: MB 880-13078/1-A
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/03/21 17:57	1

Lab Sample ID: LCS 880-13078/2-A
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	264.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-13078/3-A
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	264.1		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-8581-A-7-B MS
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	3980		1240	5246		mg/Kg		102	90 - 110		

Lab Sample ID: 880-8581-A-7-C MSD
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3980		1240	5287		mg/Kg		106	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

GC VOA

Prep Batch: 12797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-2	SW43	Total/NA	Solid	5035	
890-1606-3	SW44	Total/NA	Solid	5035	
890-1606-4	FS53	Total/NA	Solid	5035	
890-1606-5	FS55	Total/NA	Solid	5035	
890-1606-6	FS56	Total/NA	Solid	5035	
890-1606-7	FS57	Total/NA	Solid	5035	
890-1606-8	FS59	Total/NA	Solid	5035	
MB 880-12797/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12797/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12797/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1605-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-1605-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-2	SW43	Total/NA	Solid	8021B	12797
890-1606-3	SW44	Total/NA	Solid	8021B	12797
890-1606-4	FS53	Total/NA	Solid	8021B	12797
890-1606-5	FS55	Total/NA	Solid	8021B	12797
890-1606-6	FS56	Total/NA	Solid	8021B	12797
890-1606-7	FS57	Total/NA	Solid	8021B	12797
890-1606-8	FS59	Total/NA	Solid	8021B	12797
MB 880-12797/5-A	Method Blank	Total/NA	Solid	8021B	12797
LCS 880-12797/1-A	Lab Control Sample	Total/NA	Solid	8021B	12797
LCSD 880-12797/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12797
890-1605-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	12797
890-1605-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12797

Prep Batch: 13076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	5035	
MB 880-13076/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13076/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13076/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1606-1 MS	FS52	Total/NA	Solid	5035	
890-1606-1 MSD	FS52	Total/NA	Solid	5035	

Prep Batch: 13087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13087/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 13097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8021B	13076
MB 880-13076/5-A	Method Blank	Total/NA	Solid	8021B	13076
MB 880-13087/5-A	Method Blank	Total/NA	Solid	8021B	13087
LCS 880-13076/1-A	Lab Control Sample	Total/NA	Solid	8021B	13076
LCSD 880-13076/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13076
890-1606-1 MS	FS52	Total/NA	Solid	8021B	13076
890-1606-1 MSD	FS52	Total/NA	Solid	8021B	13076

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

GC VOA

Analysis Batch: 13453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	Total BTEX	
890-1606-2	SW43	Total/NA	Solid	Total BTEX	
890-1606-3	SW44	Total/NA	Solid	Total BTEX	
890-1606-4	FS53	Total/NA	Solid	Total BTEX	
890-1606-5	FS55	Total/NA	Solid	Total BTEX	
890-1606-6	FS56	Total/NA	Solid	Total BTEX	
890-1606-7	FS57	Total/NA	Solid	Total BTEX	
890-1606-8	FS59	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 13010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Total/NA	Solid	8015NM Prep	
MB 880-13010/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13010/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13010/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1602-A-11-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1602-A-11-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8015B NM	13088
890-1606-2	SW43	Total/NA	Solid	8015B NM	13088
MB 880-13088/1-A	Method Blank	Total/NA	Solid	8015B NM	13088
LCS 880-13088/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13088
LCSD 880-13088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13088
880-8632-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	13088
880-8632-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13088

Analysis Batch: 13046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Total/NA	Solid	8015B NM	13010
MB 880-13010/1-A	Method Blank	Total/NA	Solid	8015B NM	13010
LCS 880-13010/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13010
LCSD 880-13010/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13010
890-1602-A-11-H MS	Matrix Spike	Total/NA	Solid	8015B NM	13010
890-1602-A-11-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13010

Prep Batch: 13088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8015NM Prep	
890-1606-2	SW43	Total/NA	Solid	8015NM Prep	
MB 880-13088/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13088/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8632-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8632-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

GC Semi VOA

Analysis Batch: 13501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8015 NM	
890-1606-2	SW43	Total/NA	Solid	8015 NM	
890-1606-3	SW44	Total/NA	Solid	8015 NM	
890-1606-4	FS53	Total/NA	Solid	8015 NM	
890-1606-5	FS55	Total/NA	Solid	8015 NM	
890-1606-6	FS56	Total/NA	Solid	8015 NM	
890-1606-7	FS57	Total/NA	Solid	8015 NM	
890-1606-8	FS59	Total/NA	Solid	8015 NM	

Prep Batch: 14148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-3	SW44	Total/NA	Solid	8015NM Prep	
890-1606-4	FS53	Total/NA	Solid	8015NM Prep	
890-1606-5	FS55	Total/NA	Solid	8015NM Prep	
890-1606-6	FS56	Total/NA	Solid	8015NM Prep	
890-1606-7	FS57	Total/NA	Solid	8015NM Prep	
MB 880-14148/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14148/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14148/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8956-A-43-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8956-A-43-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-3	SW44	Total/NA	Solid	8015B NM	14148
890-1606-4	FS53	Total/NA	Solid	8015B NM	14148
890-1606-5	FS55	Total/NA	Solid	8015B NM	14148
890-1606-6	FS56	Total/NA	Solid	8015B NM	14148
890-1606-7	FS57	Total/NA	Solid	8015B NM	14148
MB 880-14148/1-A	Method Blank	Total/NA	Solid	8015B NM	14148
LCS 880-14148/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14148
LCSD 880-14148/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14148
880-8956-A-43-D MS	Matrix Spike	Total/NA	Solid	8015B NM	14148
880-8956-A-43-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14148

HPLC/IC

Leach Batch: 12986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Soluble	Solid	DI Leach	
890-1606-2	SW43	Soluble	Solid	DI Leach	
890-1606-3	SW44	Soluble	Solid	DI Leach	
890-1606-4	FS53	Soluble	Solid	DI Leach	
890-1606-5	FS55	Soluble	Solid	DI Leach	
890-1606-6	FS56	Soluble	Solid	DI Leach	
890-1606-7	FS57	Soluble	Solid	DI Leach	
MB 880-12986/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12986/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12986/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1603-A-11-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1603-A-11-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

HPLC/IC

Leach Batch: 13078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Soluble	Solid	DI Leach	
MB 880-13078/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13078/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13078/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8581-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-8581-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 13351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Soluble	Solid	300.0	12986
890-1606-2	SW43	Soluble	Solid	300.0	12986
890-1606-3	SW44	Soluble	Solid	300.0	12986
890-1606-4	FS53	Soluble	Solid	300.0	12986
890-1606-5	FS55	Soluble	Solid	300.0	12986
890-1606-6	FS56	Soluble	Solid	300.0	12986
890-1606-7	FS57	Soluble	Solid	300.0	12986
MB 880-12986/1-A	Method Blank	Soluble	Solid	300.0	12986
LCS 880-12986/2-A	Lab Control Sample	Soluble	Solid	300.0	12986
LCSD 880-12986/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12986
890-1603-A-11-G MS	Matrix Spike	Soluble	Solid	300.0	12986
890-1603-A-11-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12986

Analysis Batch: 13791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Soluble	Solid	300.0	13078
MB 880-13078/1-A	Method Blank	Soluble	Solid	300.0	13078
LCS 880-13078/2-A	Lab Control Sample	Soluble	Solid	300.0	13078
LCSD 880-13078/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13078
880-8581-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	13078
880-8581-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	13078

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS52
Date Collected: 11/18/21 10:45
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13076	11/23/21 12:37	KL	XEN MID
Total/NA	Analysis	8021B		1	13097	11/24/21 10:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13043	11/24/21 02:36	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 01:28	CH	XEN MID

Client Sample ID: SW43
Date Collected: 11/18/21 10:46
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 19:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13043	11/24/21 03:22	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 01:40	CH	XEN MID

Client Sample ID: SW44
Date Collected: 11/18/21 10:47
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 20:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 03:26	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 01:51	CH	XEN MID

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 20:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 03:46	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:02	CH	XEN MID

Client Sample ID: FS55
Date Collected: 11/18/21 10:52
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 20:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 04:06	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:14	CH	XEN MID

Client Sample ID: FS56
Date Collected: 11/18/21 13:15
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 21:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 04:25	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:25	CH	XEN MID

Client Sample ID: FS57
Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 21:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 04:45	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS57
Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:37	CH	XEN MID

Client Sample ID: FS59
Date Collected: 11/18/21 14:11
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 21:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13010	11/23/21 08:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13046	11/23/21 20:41	AJ	XEN MID
Soluble	Leach	DI Leach			13078	11/23/21 13:20	SC	XEN MID
Soluble	Analysis	300.0		1	13791	12/03/21 22:08	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1606-1	FS52	Solid	11/18/21 10:45	11/19/21 08:37	2
890-1606-2	SW43	Solid	11/18/21 10:46	11/19/21 08:37	0
890-1606-3	SW44	Solid	11/18/21 10:47	11/19/21 08:37	0
890-1606-4	FS53	Solid	11/18/21 10:50	11/19/21 08:37	1
890-1606-5	FS55	Solid	11/18/21 10:52	11/19/21 08:37	1
890-1606-6	FS56	Solid	11/18/21 13:15	11/19/21 08:37	1
890-1606-7	FS57	Solid	11/18/21 13:16	11/19/21 08:37	1
890-1606-8	FS59	Solid	11/18/21 14:11	11/19/21 08:37	2

Page 214 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.6/2.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-002		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS52	S	11/18/2021	1045	2'	1	x	x	x	COMPOSITE
SW43	S	11/18/2021	1046	0-2'	1	x	x	x	COMPOSITE
SW44	S	11/18/2021	1047	0-2'	1	x	x	x	COMPOSITE
FS53	S	11/18/2021	1050	1'	1	x	x	x	COMPOSITE
~~FS55~~	~~S~~	~~11/18/2021~~	~~1052~~	~~1'~~	~~1~~	~~x~~	~~x~~	~~x~~	COMPOSITE
FS56	S	11/18/2021	1315	1'	1	x	x	x	COMPOSITE
FS57	S	11/18/2021	1316	1'	1	x	x	x	COMPOSITE
FS59	S	11/18/2021	1411	2'	1	x	x	x	COMPOSITE

890-1606 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11/19/21 8:37	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Page 33 of 36

12/13/2021 (Rev. 1)

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 215 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-516 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1606-1
Address: 1211 W Florida Ave	Due Date Requested: 11/29/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS52 (890-1606-1)	11/18/21	10 45 Mountain		Solid			X	X	X	X	X	1	
SW43 (890-1606-2)	11/18/21	10 46 Mountain		Solid			X	X	X	X	X	1	
SW44 (890-1606-3)	11/18/21	10 47 Mountain		Solid			X	X	X	X	X	1	
FS53 (890-1606-4)	11/18/21	10 50 Mountain		Solid			X	X	X	X	X	1	
FS55 (890-1606-5)	11/18/21	10 52 Mountain		Solid			X	X	X	X	X	1	
FS56 (890-1606-6)	11/18/21	13 15 Mountain		Solid			X	X	X	X	X	1	
FS57 (890-1606-7)	11/18/21	13 16 Mountain		Solid			X	X	X	X	X	1	
FS59 (890-1606-8)	11/18/21	14 11 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by: CheCep 11.19 21	Date/Time:	Company	Received by: Kramer	Date/Time: 11.22 21	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 745	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 4.2/4.2

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1606-1
SDG Number: te012929159

Login Number: 1606
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1606-1
SDG Number: te012929159

Login Number: 1606
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/22/21 08:09 AM

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	4.2/4.3
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1586-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/19/2021 7:42:39 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1586-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1586-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Job ID: 890-1586-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1586-1

Receipt
The sample was received on 11/18/2021 8:39 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 5.6°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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Client Sample ID: SW37

Date Collected: 11/17/21 10:45
Date Received: 11/18/21 08:39
Sample Depth: 0 - 3

Lab Sample ID: 890-1586-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 13:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/19/21 09:45	11/19/21 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/19/21 09:45*	*11/19/21 13:21*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*11/19/21 09:45*	*11/19/21 13:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/19/21 17:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**380**		49.8		mg/Kg			11/19/21 13:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/19/21 09:12	11/19/21 16:13	1
Diesel Range Organics (Over C10-C28)	**320**		49.8		mg/Kg		11/19/21 09:12	11/19/21 16:13	1
Oil Range Organics (Over C28-C36)	**59.8**		49.8		mg/Kg		11/19/21 09:12	11/19/21 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/19/21 09:12*	*11/19/21 16:13*	*1*
o-Terphenyl	*123*		*70 - 130*	*11/19/21 09:12*	*11/19/21 16:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**477**		4.98		mg/Kg			11/19/21 16:36	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1586-1	SW37	102	109
890-1593-A-1-A MS	Matrix Spike	100	90
890-1593-A-1-B MSD	Matrix Spike Duplicate	99	94
LCS 880-12636/1-A	Lab Control Sample	96	89
LCSD 880-12636/2-A	Lab Control Sample Dup	95	94
MB 880-12636/5-A	Method Blank	111	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1586-1	SW37	108	123
890-1593-A-1-G MS	Matrix Spike	104	110
890-1593-A-1-H MSD	Matrix Spike Duplicate	97	97
LCS 880-12716/2-A	Lab Control Sample	104	112
LCSD 880-12716/3-A	Lab Control Sample Dup	89	95
MB 880-12716/1-A	Method Blank	108	129

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12636/5-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12636

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/19/21 09:45	11/19/21 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/19/21 09:45	11/19/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/19/21 09:45*	*11/19/21 11:56*	*1*

Lab Sample ID: LCS 880-12636/1-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08879		mg/Kg		89	70 - 130		
Toluene			0.100	0.07904		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1751		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08756		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-12636/2-A
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09392		mg/Kg		94	70 - 130	6	35
Toluene			0.100	0.08333		mg/Kg		83	70 - 130	5	35
Ethylbenzene			0.100	0.08763		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1689		mg/Kg		84	70 - 130	4	35
o-Xylene			0.100	0.08523		mg/Kg		85	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09093		mg/Kg					
Toluene	<0.00200	U	0.100	0.08477		mg/Kg					

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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

Lab Sample ID: 890-1593-A-1-B MSD
Matrix: Solid
Analysis Batch: 12713

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.100	0.08814		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1714		mg/Kg					
o-Xylene	<0.00200	U	0.100	0.08719		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-1593-A-1-A MS
Matrix: Solid
Analysis Batch: 12713

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-12716/1-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12716

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/19/21 09:12	11/19/21 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/19/21 09:12*	*11/19/21 12:33*	*1*
o-Terphenyl	*129*		*70 - 130*	*11/19/21 09:12*	*11/19/21 12:33*	*1*

Lab Sample ID: LCS 880-12716/2-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12716

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	930.1		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	877.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-12716/3-A
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12716

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1092		mg/Kg		109	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	840.6		mg/Kg		84	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: 890-1593-A-1-G MS
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12716

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1446	F1	mg/Kg		145	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	912.7		mg/Kg		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-1593-A-1-H MSD
Matrix: Solid
Analysis Batch: 12735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12716

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1213		mg/Kg		122	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	846.2		mg/Kg		85	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12748/1-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/19/21 16:21	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-12748/2-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-12748/3-A
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	247.8		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-1586-1 MS
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: SW37
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	477		249	715.1		mg/Kg		96	90 - 110		

Lab Sample ID: 890-1586-1 MSD
Matrix: Solid
Analysis Batch: 12795

Client Sample ID: SW37
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	477		249	714.5		mg/Kg		95	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

GC VOA

Prep Batch: 12636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	5035	
MB 880-12636/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8021B	12636
MB 880-12636/5-A	Method Blank	Total/NA	Solid	8021B	12636
LCS 880-12636/1-A	Lab Control Sample	Total/NA	Solid	8021B	12636
LCSD 880-12636/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12636
890-1593-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1593-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12636

Analysis Batch: 12817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8015NM Prep	
MB 880-12716/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12716/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-12716/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1593-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1593-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8015B NM	12716
MB 880-12716/1-A	Method Blank	Total/NA	Solid	8015B NM	12716
LCS 880-12716/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12716
LCSD 880-12716/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12716
890-1593-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	12716
890-1593-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12716

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Soluble	Solid	DI Leach	
MB 880-12748/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12748/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12748/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1586-1 MS	SW37	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

HPLC/IC (Continued)

Leach Batch: 12748 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1 MSD	SW37	Soluble	Solid	DI Leach	

Analysis Batch: 12795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1586-1	SW37	Soluble	Solid	300.0	12748
MB 880-12748/1-A	Method Blank	Soluble	Solid	300.0	12748
LCS 880-12748/2-A	Lab Control Sample	Soluble	Solid	300.0	12748
LCSD 880-12748/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12748
890-1586-1 MS	SW37	Soluble	Solid	300.0	12748
890-1586-1 MSD	SW37	Soluble	Solid	300.0	12748

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Client Sample ID: SW37

Date Collected: 11/17/21 10:45
Date Received: 11/18/21 08:39

Lab Sample ID: 890-1586-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12636	11/19/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	12713	11/19/21 13:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12817	11/19/21 17:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12781	11/19/21 13:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12716	11/19/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12735	11/19/21 16:13	AJ	XEN MID
Soluble	Leach	DI Leach			12748	11/19/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	12795	11/19/21 16:36	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1586-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1586-1	SW37	Solid	11/17/21 10:45	11/18/21 08:39	0 - 3

Page 234 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

11/19/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☐
P.O. Number:	CC: 1138871001	Rush:	24 hr
Sampler's Name:	Alexis Castro	Due Date:	11/19/21

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	5.8 / 5.6	Thermometer ID	TWM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW37	S	11/17/2021	1045	0-3'	1	x	x	x

ANALYSIS REQUEST

890-1586 Chain of Custody

Work Order Notes

~~Incident #: nAPP2034638293~~
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Sample Comments

COMPOSITE

AC

Page 17 of 20

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11.18.21 839			
3				4		
5				6		

Revised Date 051418 Rev 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-514 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1586-1
Address: 1211 W Florida Ave	Due Date Requested: 11/22/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW37 (890-1586-1)	11/17/21	10 45 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time.	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Clue Cuty 11.18.21			P Kramer		
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
		3.4 3.7

Ver: 06/08/2021

Page 235 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/19/2021
Page 18 of 20
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1586-1
SDG Number: te012929159

Login Number: 1586
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1586-1
SDG Number: te012929159

Login Number: 1586
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/19/21 11:47 AM

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	3.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1606-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
12/13/2021 4:17:01 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1606-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 12
QC Sample Results 14
QC Association Summary 23
Lab Chronicle 27
Certification Summary 30
Method Summary 31
Sample Summary 32
Chain of Custody 33
Receipt Checklists 35

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1606-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Job ID: 890-1606-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1606-1

REVISION

The report being provided is a revision of the original report sent on 12/6/2021. The report (revision 1) is being revised due to Per client email, requesting re run on samples FS53, FS55, FS56, FS57, and SW44.

Report revision history

Receipt
The samples were received on 11/19/2021 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS52 (890-1606-1), (MB 880-13088/1-A) and (880-8632-A-1-D). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-13010/2-A), (LCSD 880-13010/3-A) and (MB 880-13010/1-A). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS52

Date Collected: 11/18/21 10:45
Date Received: 11/19/21 08:37
Sample Depth: 2

Lab Sample ID: 890-1606-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
Toluene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
o-Xylene	<0.00198	U F1	0.00198		mg/Kg		11/23/21 12:37	11/24/21 10:44	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/23/21 12:37	11/24/21 10:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*11/23/21 12:37*	*11/24/21 10:44*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/23/21 12:37*	*11/24/21 10:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/24/21 02:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/24/21 02:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/24/21 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*11/23/21 14:30*	*11/24/21 02:36*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*11/23/21 14:30*	*11/24/21 02:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**87.6**		5.05		mg/Kg			12/04/21 01:28	1

Client Sample ID: SW43

Date Collected: 11/18/21 10:46
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 19:39	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/22/21 10:00*	*11/22/21 19:39*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: SW43
Date Collected: 11/18/21 10:46
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*11/22/21 10:00*	*11/22/21 19:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/23/21 14:30	11/24/21 03:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/23/21 14:30	11/24/21 03:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/23/21 14:30	11/24/21 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*11/23/21 14:30*	*11/24/21 03:22*	*1*
o-Terphenyl	*127*		*70 - 130*	*11/23/21 14:30*	*11/24/21 03:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60.1**		4.97		mg/Kg			12/04/21 01:40	1

Client Sample ID: SW44
Date Collected: 11/18/21 10:47
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:00	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:00*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**112**		49.9		mg/Kg			11/30/21 14:25	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: SW44
Date Collected: 11/18/21 10:47
Date Received: 11/19/21 08:37
Sample Depth: 0

Lab Sample ID: 890-1606-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 03:26	1
Diesel Range Organics (Over C10-C28)	**112**	**H**	49.9		mg/Kg		12/07/21 09:08	12/09/21 03:26	1
Oil Range Organics (Over C28-C36)	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:26*	*1*
o-Terphenyl	*124*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**137**		4.95		mg/Kg			12/04/21 01:51	1

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
Ethylbenzene	**0.00305**		0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 20:20	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/22/21 10:00	11/22/21 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:20*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:20*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**650**		49.8		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U H	49.8		mg/Kg		12/07/21 09:08	12/09/21 03:46	1
Diesel Range Organics (Over C10-C28)	**650**	**H**	49.8		mg/Kg		12/07/21 09:08	12/09/21 03:46	1
Oil Range Organics (Over C28-C36)	<49.8	U H	49.8		mg/Kg		12/07/21 09:08	12/09/21 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:46*	*1*
o-Terphenyl	*104*		*70 - 130*	*12/07/21 09:08*	*12/09/21 03:46*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.0**		4.98		mg/Kg			12/04/21 02:02	1

Client Sample ID: FS55
Date Collected: 11/18/21 10:52
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/22/21 10:00	11/22/21 20:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/22/21 10:00	11/22/21 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:41*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/22/21 10:00*	*11/22/21 20:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**172**		50.0		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:06	1
Diesel Range Organics (Over C10-C28)	**172**	**H**	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:06	1
OII Range Organics (Over C28-C36)	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:06*	*1*
o-Terphenyl	*100*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.9**		4.99		mg/Kg			12/04/21 02:14	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS56

Date Collected: 11/18/21 13:15
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 21:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/22/21 10:00	11/22/21 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:02*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**761**		50.0		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:25	1
Diesel Range Organics (Over C10-C28)	**761**	**H**	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:25	1
Oil Range Organics (Over C28-C36)	<50.0	U H	50.0		mg/Kg		12/07/21 09:08	12/09/21 04:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:25*	*1*
o-Terphenyl	*107*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.4**		5.00		mg/Kg			12/04/21 02:25	1

Client Sample ID: FS57

Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37
Sample Depth: 1

Lab Sample ID: 890-1606-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/22/21 10:00	11/22/21 21:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/22/21 10:00	11/22/21 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:22*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS57

Lab Sample ID: 890-1606-7
Matrix: Solid
Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37
Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**150**		49.9		mg/Kg			11/30/21 14:25	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 04:45	1
Diesel Range Organics (Over C10-C28)	**150**	**H**	49.9		mg/Kg		12/07/21 09:08	12/09/21 04:45	1
OII Range Organics (Over C28-C36)	<49.9	U H	49.9		mg/Kg		12/07/21 09:08	12/09/21 04:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*101*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:45*	*1*
o-Terphenyl	*103*		*70 - 130*	*12/07/21 09:08*	*12/09/21 04:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.5**		5.00		mg/Kg			12/04/21 02:37	1

Client Sample ID: FS59

Lab Sample ID: 890-1606-8
Matrix: Solid
Date Collected: 11/18/21 14:11
Date Received: 11/19/21 08:37
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/21 10:00	11/22/21 21:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/21 10:00	11/22/21 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/22/21 10:00*	*11/22/21 21:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/30/21 11:02	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/30/21 14:25	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS59

Date Collected: 11/18/21 14:11
Date Received: 11/19/21 08:37
Sample Depth: 2

Lab Sample ID: 890-1606-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/23/21 08:57	11/23/21 20:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/23/21 08:57	11/23/21 20:41	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/23/21 08:57	11/23/21 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/23/21 08:57*	*11/23/21 20:41*	*1*
o-Terphenyl	*114*		*70 - 130*	*11/23/21 08:57*	*11/23/21 20:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.1**		5.04		mg/Kg			12/03/21 22:08	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1605-A-1-E MS	Matrix Spike	102	96
890-1605-A-1-F MSD	Matrix Spike Duplicate	101	95
890-1606-1	FS52	134 S1+	84
890-1606-1 MS	FS52	125	102
890-1606-1 MSD	FS52	119	95
890-1606-2	SW43	93	83
890-1606-3	SW44	97	97
890-1606-4	FS53	104	123
890-1606-5	FS55	107	96
890-1606-6	FS56	103	108
890-1606-7	FS57	101	100
890-1606-8	FS59	95	103
LCS 880-12797/1-A	Lab Control Sample	93	76
LCS 880-13076/1-A	Lab Control Sample	107	104
LCSD 880-12797/2-A	Lab Control Sample Dup	106	96
LCSD 880-13076/2-A	Lab Control Sample Dup	109	106
MB 880-12797/5-A	Method Blank	108	90
MB 880-13076/5-A	Method Blank	72	96
MB 880-13087/5-A	Method Blank	71	97

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8632-A-1-E MS	Matrix Spike	121	116
880-8632-A-1-F MSD	Matrix Spike Duplicate	123	119
880-8956-A-43-D MS	Matrix Spike	101	99
880-8956-A-43-E MSD	Matrix Spike Duplicate	92	87
890-1602-A-11-H MS	Matrix Spike	97	88
890-1602-A-11-I MSD	Matrix Spike Duplicate	100	89
890-1606-1	FS52	122	144 S1+
890-1606-2	SW43	112	127
890-1606-3	SW44	119	124
890-1606-4	FS53	104	104
890-1606-5	FS55	100	100
890-1606-6	FS56	109	107
890-1606-7	FS57	101	103
890-1606-8	FS59	116	114
LCS 880-13010/2-A	Lab Control Sample	309 S1+	300 S1+
LCS 880-13088/2-A	Lab Control Sample	124	129
LCS 880-14148/2-A	Lab Control Sample	93	90
LCSD 880-13010/3-A	Lab Control Sample Dup	301 S1+	292 S1+
LCSD 880-13088/3-A	Lab Control Sample Dup	117	123
LCSD 880-14148/3-A	Lab Control Sample Dup	97	96

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1606-1
Project/Site: Ross Ranch 6 SDG: te012929159

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
MB 880-13010/1-A	Method Blank	141 S1+	141 S1+
MB 880-13088/1-A	Method Blank	148 S1+	171 S1+
MB 880-14148/1-A	Method Blank	91	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12797/5-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12797

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/21 10:00	11/22/21 13:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/21 10:00	11/22/21 13:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*11/22/21 10:00*	*11/22/21 13:46*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*11/22/21 10:00*	*11/22/21 13:46*	*1*

Lab Sample ID: LCS 880-12797/1-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12797

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08334		mg/Kg		83	70 - 130		
Toluene			0.100	0.08700		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08508		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1602		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08475		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: LCSD 880-12797/2-A
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12797

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08320		mg/Kg		83	70 - 130	0	35
Toluene			0.100	0.09312		mg/Kg		93	70 - 130	7	35
Ethylbenzene			0.100	0.1027		mg/Kg		103	70 - 130	19	35
m-Xylene & p-Xylene			0.200	0.1878		mg/Kg		94	70 - 130	16	35
o-Xylene			0.100	0.09218		mg/Kg		92	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1605-A-1-E MS
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.0992	0.06875	F1	mg/Kg		69	70 - 130		
Toluene	<0.00199	U F1	0.0992	0.06482	F1	mg/Kg		65	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: 890-1605-A-1-E MS
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1 F2	0.0992	<0.00198	U F1	mg/Kg		0.7	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.198	0.1308	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00199	U F1	0.0992	0.06654	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-1605-A-1-F MSD
Matrix: Solid
Analysis Batch: 12903

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12797

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.07061		mg/Kg		71	70 - 130	3	35
Toluene	<0.00199	U F1	0.0998	0.06947		mg/Kg		70	70 - 130	7	35
Ethylbenzene	<0.00199	U F1 F2	0.0998	0.07297	F2	mg/Kg		73	70 - 130	196	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1427		mg/Kg		71	70 - 130	9	35
o-Xylene	<0.00199	U F1	0.0998	0.07214		mg/Kg		71	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-13076/5-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13076

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 12:37	11/24/21 10:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/23/21 12:37	11/24/21 10:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*11/23/21 12:37*	*11/24/21 10:17*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/23/21 12:37*	*11/24/21 10:17*	*1*

Lab Sample ID: LCS 880-13076/1-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08609		mg/Kg		86	70 - 130
Toluene	0.100	0.08085		mg/Kg		81	70 - 130
Ethylbenzene	0.100	0.07935		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1753		mg/Kg		88	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: LCS 880-13076/1-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13076

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.08509		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-13076/2-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13076

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08998		mg/Kg		90	70 - 130	4	35
Toluene			0.100	0.08514		mg/Kg		85	70 - 130	5	35
Ethylbenzene			0.100	0.08446		mg/Kg		84	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1876		mg/Kg		94	70 - 130	7	35
o-Xylene			0.100	0.09093		mg/Kg		91	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1606-1 MS
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: FS52
Prep Type: Total/NA
Prep Batch: 13076

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U F1	0.0996	0.05858	F1	mg/Kg		59	70 - 130		
Toluene	<0.00198	U F1	0.0996	0.06553	F1	mg/Kg		66	70 - 130		
Ethylbenzene	<0.00198	U F1	0.0996	0.06470	F1	mg/Kg		65	70 - 130		
m-Xylene & p-Xylene	<0.00396	U	0.199	0.1440		mg/Kg		72	70 - 130		
o-Xylene	<0.00198	U F1	0.0996	0.06394	F1	mg/Kg		64	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-1606-1 MSD
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: FS52
Prep Type: Total/NA
Prep Batch: 13076

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.100	0.05973	F1	mg/Kg		60	70 - 130	2	35
Toluene	<0.00198	U F1	0.100	0.06784	F1	mg/Kg		68	70 - 130	3	35
Ethylbenzene	<0.00198	U F1	0.100	0.06693	F1	mg/Kg		67	70 - 130	3	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1488		mg/Kg		74	70 - 130	3	35
o-Xylene	<0.00198	U F1	0.100	0.06867	F1	mg/Kg		69	70 - 130	7	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: 890-1606-1 MSD
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: FS52
Prep Type: Total/NA
Prep Batch: 13076

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-13087/5-A
Matrix: Solid
Analysis Batch: 13097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13087

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/23/21 14:25	11/23/21 19:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	11/23/21 14:25	11/23/21 19:58	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/23/21 14:25	11/23/21 19:58	1

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

Lab Sample ID: MB 880-13010/1-A
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13010

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/23/21 08:57	11/23/21 11:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/23/21 08:57	11/23/21 11:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/23/21 08:57	11/23/21 11:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	11/23/21 08:57	11/23/21 11:43	1
o-Terphenyl	141	S1+	70 - 130	11/23/21 08:57	11/23/21 11:43	1

Lab Sample ID: LCS 880-13010/2-A
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13010

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1147		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	972.6		mg/Kg		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	309	S1+	70 - 130
o-Terphenyl	300	S1+	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-13010/3-A
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13010

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1237		mg/Kg		124	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	940.4		mg/Kg		94	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*301*	*S1+*	*70 - 130*
o-Terphenyl	*292*	*S1+*	*70 - 130*

Lab Sample ID: 890-1602-A-11-H MS
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 13010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1281		mg/Kg		129	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1005		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: 890-1602-A-11-I MSD
Matrix: Solid
Analysis Batch: 13046

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 13010

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1182		mg/Kg		118	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1033		mg/Kg		103	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: MB 880-13088/1-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13088

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/23/21 21:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/23/21 21:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/23/21 14:30	11/23/21 21:25	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: MB 880-13088/1-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13088

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130	11/23/21 14:30	11/23/21 21:25	1
o-Terphenyl	171	S1+	70 - 130	11/23/21 14:30	11/23/21 21:25	1

Lab Sample ID: LCS 880-13088/2-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	919.5		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1277		mg/Kg		128	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	129		70 - 130

Lab Sample ID: LCSD 880-13088/3-A
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	927.0		mg/Kg		93	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1254		mg/Kg		125	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 880-8632-A-1-E MS
Matrix: Solid
Analysis Batch: 13043

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 13088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1175		mg/Kg		118	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1137		mg/Kg		111	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	116		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: 880-8632-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13043 — **Prep Batch: 13088**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1191		mg/Kg		119	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1181		mg/Kg		115	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Lab Sample ID: MB 880-14148/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14244 — **Prep Batch: 14148**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/07/21 09:08	12/08/21 20:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/07/21 09:08	12/08/21 20:33	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/07/21 09:08	12/08/21 20:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*12/07/21 09:08*	*12/08/21 20:33*	*1*
o-Terphenyl	*98*		*70 - 130*	*12/07/21 09:08*	*12/08/21 20:33*	*1*

Lab Sample ID: LCS 880-14148/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14244 — **Prep Batch: 14148**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	978.2		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	926.0		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: LCSD 880-14148/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14244 — **Prep Batch: 14148**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	814.5		mg/Kg		81	70 - 130	18	20
Diesel Range Organics (Over C10-C28)			1000	821.2		mg/Kg		82	70 - 130	12	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-14148/3-A
Matrix: Solid
Analysis Batch: 14244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14148

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 880-8956-A-43-D MS
Matrix: Solid
Analysis Batch: 14244

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14148

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1162		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1078		mg/Kg		106	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-8956-A-43-E MSD
Matrix: Solid
Analysis Batch: 14244

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14148

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1118		mg/Kg		110	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	971.9		mg/Kg		95	70 - 130	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	87		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12986/1-A
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/03/21 20:55	1

Lab Sample ID: LCS 880-12986/2-A
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.1		mg/Kg		100	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-12986/3-A
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.6		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1603-A-11-G MS
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1050		250	1278	4	mg/Kg		89	90 - 110		

Lab Sample ID: 890-1603-A-11-H MSD
Matrix: Solid
Analysis Batch: 13351

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1050		250	1270	4	mg/Kg		86	90 - 110	1	20

Lab Sample ID: MB 880-13078/1-A
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/03/21 17:57	1

Lab Sample ID: LCS 880-13078/2-A
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	264.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-13078/3-A
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	264.1		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-8581-A-7-B MS
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	3980		1240	5246		mg/Kg		102	90 - 110		

Lab Sample ID: 880-8581-A-7-C MSD
Matrix: Solid
Analysis Batch: 13791

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3980		1240	5287		mg/Kg		106	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

GC VOA

Prep Batch: 12797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-2	SW43	Total/NA	Solid	5035	
890-1606-3	SW44	Total/NA	Solid	5035	
890-1606-4	FS53	Total/NA	Solid	5035	
890-1606-5	FS55	Total/NA	Solid	5035	
890-1606-6	FS56	Total/NA	Solid	5035	
890-1606-7	FS57	Total/NA	Solid	5035	
890-1606-8	FS59	Total/NA	Solid	5035	
MB 880-12797/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12797/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12797/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1605-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-1605-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-2	SW43	Total/NA	Solid	8021B	12797
890-1606-3	SW44	Total/NA	Solid	8021B	12797
890-1606-4	FS53	Total/NA	Solid	8021B	12797
890-1606-5	FS55	Total/NA	Solid	8021B	12797
890-1606-6	FS56	Total/NA	Solid	8021B	12797
890-1606-7	FS57	Total/NA	Solid	8021B	12797
890-1606-8	FS59	Total/NA	Solid	8021B	12797
MB 880-12797/5-A	Method Blank	Total/NA	Solid	8021B	12797
LCS 880-12797/1-A	Lab Control Sample	Total/NA	Solid	8021B	12797
LCSD 880-12797/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12797
890-1605-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	12797
890-1605-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12797

Prep Batch: 13076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	5035	
MB 880-13076/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13076/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13076/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1606-1 MS	FS52	Total/NA	Solid	5035	
890-1606-1 MSD	FS52	Total/NA	Solid	5035	

Prep Batch: 13087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13087/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 13097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8021B	13076
MB 880-13076/5-A	Method Blank	Total/NA	Solid	8021B	13076
MB 880-13087/5-A	Method Blank	Total/NA	Solid	8021B	13087
LCS 880-13076/1-A	Lab Control Sample	Total/NA	Solid	8021B	13076
LCSD 880-13076/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13076
890-1606-1 MS	FS52	Total/NA	Solid	8021B	13076
890-1606-1 MSD	FS52	Total/NA	Solid	8021B	13076

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

GC VOA

Analysis Batch: 13453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	Total BTEX	
890-1606-2	SW43	Total/NA	Solid	Total BTEX	
890-1606-3	SW44	Total/NA	Solid	Total BTEX	
890-1606-4	FS53	Total/NA	Solid	Total BTEX	
890-1606-5	FS55	Total/NA	Solid	Total BTEX	
890-1606-6	FS56	Total/NA	Solid	Total BTEX	
890-1606-7	FS57	Total/NA	Solid	Total BTEX	
890-1606-8	FS59	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 13010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Total/NA	Solid	8015NM Prep	
MB 880-13010/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13010/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13010/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1602-A-11-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1602-A-11-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8015B NM	13088
890-1606-2	SW43	Total/NA	Solid	8015B NM	13088
MB 880-13088/1-A	Method Blank	Total/NA	Solid	8015B NM	13088
LCS 880-13088/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13088
LCSD 880-13088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13088
880-8632-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	13088
880-8632-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13088

Analysis Batch: 13046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Total/NA	Solid	8015B NM	13010
MB 880-13010/1-A	Method Blank	Total/NA	Solid	8015B NM	13010
LCS 880-13010/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13010
LCSD 880-13010/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13010
890-1602-A-11-H MS	Matrix Spike	Total/NA	Solid	8015B NM	13010
890-1602-A-11-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13010

Prep Batch: 13088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8015NM Prep	
890-1606-2	SW43	Total/NA	Solid	8015NM Prep	
MB 880-13088/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13088/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8632-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8632-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

GC Semi VOA

Analysis Batch: 13501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Total/NA	Solid	8015 NM	
890-1606-2	SW43	Total/NA	Solid	8015 NM	
890-1606-3	SW44	Total/NA	Solid	8015 NM	
890-1606-4	FS53	Total/NA	Solid	8015 NM	
890-1606-5	FS55	Total/NA	Solid	8015 NM	
890-1606-6	FS56	Total/NA	Solid	8015 NM	
890-1606-7	FS57	Total/NA	Solid	8015 NM	
890-1606-8	FS59	Total/NA	Solid	8015 NM	

Prep Batch: 14148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-3	SW44	Total/NA	Solid	8015NM Prep	
890-1606-4	FS53	Total/NA	Solid	8015NM Prep	
890-1606-5	FS55	Total/NA	Solid	8015NM Prep	
890-1606-6	FS56	Total/NA	Solid	8015NM Prep	
890-1606-7	FS57	Total/NA	Solid	8015NM Prep	
MB 880-14148/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14148/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14148/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8956-A-43-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8956-A-43-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-3	SW44	Total/NA	Solid	8015B NM	14148
890-1606-4	FS53	Total/NA	Solid	8015B NM	14148
890-1606-5	FS55	Total/NA	Solid	8015B NM	14148
890-1606-6	FS56	Total/NA	Solid	8015B NM	14148
890-1606-7	FS57	Total/NA	Solid	8015B NM	14148
MB 880-14148/1-A	Method Blank	Total/NA	Solid	8015B NM	14148
LCS 880-14148/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14148
LCSD 880-14148/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14148
880-8956-A-43-D MS	Matrix Spike	Total/NA	Solid	8015B NM	14148
880-8956-A-43-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14148

HPLC/IC

Leach Batch: 12986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Soluble	Solid	DI Leach	
890-1606-2	SW43	Soluble	Solid	DI Leach	
890-1606-3	SW44	Soluble	Solid	DI Leach	
890-1606-4	FS53	Soluble	Solid	DI Leach	
890-1606-5	FS55	Soluble	Solid	DI Leach	
890-1606-6	FS56	Soluble	Solid	DI Leach	
890-1606-7	FS57	Soluble	Solid	DI Leach	
MB 880-12986/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12986/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12986/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1603-A-11-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1603-A-11-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

HPLC/IC

Leach Batch: 13078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Soluble	Solid	DI Leach	
MB 880-13078/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13078/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13078/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8581-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-8581-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 13351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-1	FS52	Soluble	Solid	300.0	12986
890-1606-2	SW43	Soluble	Solid	300.0	12986
890-1606-3	SW44	Soluble	Solid	300.0	12986
890-1606-4	FS53	Soluble	Solid	300.0	12986
890-1606-5	FS55	Soluble	Solid	300.0	12986
890-1606-6	FS56	Soluble	Solid	300.0	12986
890-1606-7	FS57	Soluble	Solid	300.0	12986
MB 880-12986/1-A	Method Blank	Soluble	Solid	300.0	12986
LCS 880-12986/2-A	Lab Control Sample	Soluble	Solid	300.0	12986
LCSD 880-12986/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12986
890-1603-A-11-G MS	Matrix Spike	Soluble	Solid	300.0	12986
890-1603-A-11-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12986

Analysis Batch: 13791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1606-8	FS59	Soluble	Solid	300.0	13078
MB 880-13078/1-A	Method Blank	Soluble	Solid	300.0	13078
LCS 880-13078/2-A	Lab Control Sample	Soluble	Solid	300.0	13078
LCSD 880-13078/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13078
880-8581-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	13078
880-8581-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	13078

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS52
Date Collected: 11/18/21 10:45
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13076	11/23/21 12:37	KL	XEN MID
Total/NA	Analysis	8021B		1	13097	11/24/21 10:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13043	11/24/21 02:36	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 01:28	CH	XEN MID

Client Sample ID: SW43
Date Collected: 11/18/21 10:46
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 19:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13043	11/24/21 03:22	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 01:40	CH	XEN MID

Client Sample ID: SW44
Date Collected: 11/18/21 10:47
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 20:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 03:26	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 01:51	CH	XEN MID

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 20:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS53
Date Collected: 11/18/21 10:50
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 03:46	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:02	CH	XEN MID

Client Sample ID: FS55
Date Collected: 11/18/21 10:52
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 20:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 04:06	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:14	CH	XEN MID

Client Sample ID: FS56
Date Collected: 11/18/21 13:15
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 21:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 04:25	AJ	XEN MID
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:25	CH	XEN MID

Client Sample ID: FS57
Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 21:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14148	12/07/21 09:08	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14244	12/09/21 04:45	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Client Sample ID: FS57
Date Collected: 11/18/21 13:16
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			12986	11/22/21 18:31	CA	XEN MID
Soluble	Analysis	300.0		1	13351	12/04/21 02:37	CH	XEN MID

Client Sample ID: FS59
Date Collected: 11/18/21 14:11
Date Received: 11/19/21 08:37

Lab Sample ID: 890-1606-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12797	11/22/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	12903	11/22/21 21:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 11:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13501	11/30/21 14:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13010	11/23/21 08:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13046	11/23/21 20:41	AJ	XEN MID
Soluble	Leach	DI Leach			13078	11/23/21 13:20	SC	XEN MID
Soluble	Analysis	300.0		1	13791	12/03/21 22:08	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1606-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1606-1	FS52	Solid	11/18/21 10:45	11/19/21 08:37	2
890-1606-2	SW43	Solid	11/18/21 10:46	11/19/21 08:37	0
890-1606-3	SW44	Solid	11/18/21 10:47	11/19/21 08:37	0
890-1606-4	FS53	Solid	11/18/21 10:50	11/19/21 08:37	1
890-1606-5	FS55	Solid	11/18/21 10:52	11/19/21 08:37	1
890-1606-6	FS56	Solid	11/18/21 13:15	11/19/21 08:37	1
890-1606-7	FS57	Solid	11/18/21 13:16	11/19/21 08:37	1
890-1606-8	FS59	Solid	11/18/21 14:11	11/19/21 08:37	2

Page 270 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.6/2.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-002		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS52	S	11/18/2021	1045	2'	1	x	x	x	COMPOSITE
SW43	S	11/18/2021	1046	0-2'	1	x	x	x	COMPOSITE
SW44	S	11/18/2021	1047	0-2'	1	x	x	x	COMPOSITE
FS53	S	11/18/2021	1050	1'	1	x	x	x	COMPOSITE
~~FS55~~	~~S~~	~~11/18/2021~~	~~1052~~	~~1'~~	~~1~~	~~x~~	~~x~~	~~x~~	COMPOSITE
FS56	S	11/18/2021	1315	1'	1	x	x	x	COMPOSITE
FS57	S	11/18/2021	1316	1'	1	x	x	x	COMPOSITE
FS59	S	11/18/2021	1411	2'	1	x	x	x	COMPOSITE

890-1606 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/19/21 8:37	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 33 of 36

12/13/2021 (Rev. 1)

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 271 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-516 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1606-1
Address: 1211 W Florida Ave	Due Date Requested: 11/29/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS52 (890-1606-1)	11/18/21	10 45 Mountain		Solid			X	X	X	X	X	1	
SW43 (890-1606-2)	11/18/21	10 46 Mountain		Solid			X	X	X	X	X	1	
SW44 (890-1606-3)	11/18/21	10 47 Mountain		Solid			X	X	X	X	X	1	
FS53 (890-1606-4)	11/18/21	10 50 Mountain		Solid			X	X	X	X	X	1	
FS55 (890-1606-5)	11/18/21	10 52 Mountain		Solid			X	X	X	X	X	1	
FS56 (890-1606-6)	11/18/21	13 15 Mountain		Solid			X	X	X	X	X	1	
FS57 (890-1606-7)	11/18/21	13 16 Mountain		Solid			X	X	X	X	X	1	
FS59 (890-1606-8)	11/18/21	14 11 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by: CheCep 11.19 21	Date/Time:	Company	Received by: Kramer	Date/Time: 11.22.21	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 745	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 4.2/4.2

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1606-1
SDG Number: te012929159

Login Number: 1606
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1606-1
SDG Number: te012929159

Login Number: 1606
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/22/21 08:09 AM

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	4.2/4.3
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1609-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
12/13/2021 3:12:01 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1609-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 10
QC Sample Results 11
QC Association Summary 17
Lab Chronicle 20
Certification Summary 22
Method Summary 23
Sample Summary 24
Chain of Custody 25
Receipt Checklists 27

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Job ID: 890-1609-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1609-1

REVISION

The report being provided is a revision of the original report sent on 12/3/2021. The report (revision 1) is being revised due to Per client request, re analysing samples FS60, FS61, and FS63 for TPH.

Report revision history

Receipt
The samples were received on 11/22/2021 8:47 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 1.2°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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: FS60

Date Collected: 11/19/21 10:55
Date Received: 11/22/21 08:47
Sample Depth: 1

Lab Sample ID: 890-1609-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/23/21 16:45	11/24/21 12:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/23/21 16:45	11/24/21 12:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/23/21 16:45	11/24/21 12:49	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/23/21 16:45	11/24/21 12:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/23/21 16:45	11/24/21 12:49	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/23/21 16:45	11/24/21 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*11/23/21 16:45*	*11/24/21 12:49*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/23/21 16:45*	*11/24/21 12:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/30/21 15:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**243**		49.9		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U H	49.9		mg/Kg		12/07/21 13:23	12/08/21 05:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U H	49.9		mg/Kg		12/07/21 13:23	12/08/21 05:00	1
Oil Range Organics (Over C28-C36)	<49.9	U H	49.9		mg/Kg		12/07/21 13:23	12/08/21 05:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*12/07/21 13:23*	*12/08/21 05:00*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*12/07/21 13:23*	*12/08/21 05:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			12/03/21 01:03	1

Client Sample ID: FS61

Date Collected: 11/19/21 11:00
Date Received: 11/22/21 08:47
Sample Depth: 1

Lab Sample ID: 890-1609-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 13:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 13:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 13:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/23/21 16:45	11/24/21 13:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 13:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/23/21 16:45	11/24/21 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/23/21 16:45*	*11/24/21 13:10*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: FS61
Date Collected: 11/19/21 11:00
Date Received: 11/22/21 08:47
Sample Depth: 1

Lab Sample ID: 890-1609-2
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/23/21 16:45*	*11/24/21 13:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/30/21 15:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**109**		50.0		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U H	49.8		mg/Kg		12/07/21 13:23	12/08/21 05:24	1
Diesel Range Organics (Over C10-C28)	<49.8	U H	49.8		mg/Kg		12/07/21 13:23	12/08/21 05:24	1
Oil Range Organics (Over C28-C36)	<49.8	U H	49.8		mg/Kg		12/07/21 13:23	12/08/21 05:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*101*		*70 - 130*	*12/07/21 13:23*	*12/08/21 05:24*	*1*
o-Terphenyl	*119*		*70 - 130*	*12/07/21 13:23*	*12/08/21 05:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**576**		5.04		mg/Kg			12/03/21 01:37	1

Client Sample ID: FS62
Date Collected: 11/19/21 11:05
Date Received: 11/22/21 08:47
Sample Depth: 1

Lab Sample ID: 890-1609-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/23/21 16:45	11/24/21 13:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/23/21 16:45	11/24/21 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*11/23/21 16:45*	*11/24/21 13:30*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/23/21 16:45*	*11/24/21 13:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/30/21 15:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**93.0**		49.9		mg/Kg			12/01/21 20:09	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: FS62

Lab Sample ID: 890-1609-3
Matrix: Solid
Date Collected: 11/19/21 11:05
Date Received: 11/22/21 08:47
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/24/21 08:16	11/24/21 15:58	1
Diesel Range Organics (Over C10-C28)	**93.0**		49.9		mg/Kg		11/24/21 08:16	11/24/21 15:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/24/21 08:16	11/24/21 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/24/21 08:16*	*11/24/21 15:58*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/24/21 08:16*	*11/24/21 15:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			12/03/21 13:12	1

Client Sample ID: FS63

Lab Sample ID: 890-1609-4
Matrix: Solid
Date Collected: 11/19/21 11:10
Date Received: 11/22/21 08:47
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:51	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/23/21 16:45	11/24/21 13:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 13:51	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/23/21 16:45	11/24/21 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/23/21 16:45*	*11/24/21 13:51*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*11/23/21 16:45*	*11/24/21 13:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/30/21 15:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**229**		49.9		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U H	50.0		mg/Kg		12/07/21 13:23	12/08/21 05:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U H	50.0		mg/Kg		12/07/21 13:23	12/08/21 05:46	1
Oil Range Organics (Over C28-C36)	<50.0	U H	50.0		mg/Kg		12/07/21 13:23	12/08/21 05:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*12/07/21 13:23*	*12/08/21 05:46*	*1*
o-Terphenyl	*118*		*70 - 130*	*12/07/21 13:23*	*12/08/21 05:46*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: FS63
Date Collected: 11/19/21 11:10
Date Received: 11/22/21 08:47
Sample Depth: 1

Lab Sample ID: 890-1609-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			12/03/21 13:23	1

Client Sample ID: SW47
Date Collected: 11/19/21 12:55
Date Received: 11/22/21 08:47
Sample Depth: 0 - 2

Lab Sample ID: 890-1609-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/23/21 16:45	11/24/21 14:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/23/21 16:45	11/24/21 14:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/23/21 16:45	11/24/21 14:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/23/21 16:45	11/24/21 14:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/23/21 16:45	11/24/21 14:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/23/21 16:45	11/24/21 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*11/23/21 16:45*	*11/24/21 14:11*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/23/21 16:45*	*11/24/21 14:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/30/21 15:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/24/21 08:16	11/24/21 16:43	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/24/21 08:16	11/24/21 16:43	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/24/21 08:16	11/24/21 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*11/24/21 08:16*	*11/24/21 16:43*	*1*
o-Terphenyl	*108*		*70 - 130*	*11/24/21 08:16*	*11/24/21 16:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			12/03/21 02:11	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: SW48

Date Collected: 11/19/21 13:50
Date Received: 11/22/21 08:47
Sample Depth: 0 - 4

Lab Sample ID: 890-1609-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 15:34	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 15:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 15:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/23/21 16:45	11/24/21 15:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/23/21 16:45	11/24/21 15:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/23/21 16:45	11/24/21 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/23/21 16:45*	*11/24/21 15:34*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/23/21 16:45*	*11/24/21 15:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/30/21 15:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/01/21 20:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/24/21 08:16	11/24/21 17:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/24/21 08:16	11/24/21 17:06	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/24/21 08:16	11/24/21 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/24/21 08:16*	*11/24/21 17:06*	*1*
o-Terphenyl	*117*		*70 - 130*	*11/24/21 08:16*	*11/24/21 17:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.9**		4.97		mg/Kg			12/03/21 02:45	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1609-1	FS60	118	111
890-1609-2	FS61	110	108
890-1609-3	FS62	122	93
890-1609-4	FS63	123	88
890-1609-5	SW47	112	108
890-1609-6	SW48	120	103
890-1619-A-21-E MSD	Matrix Spike Duplicate	106	109
890-1619-A-21-I MS	Matrix Spike	107	106
LCS 880-13016/1-A	Lab Control Sample	106	105
LCSD 880-13016/2-A	Lab Control Sample Dup	107	104
MB 880-13016/5-A	Method Blank	113	102

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1609-1	FS60	111	131 S1+
890-1609-1 MS	FS60	127	117
890-1609-1 MSD	FS60	112	97
890-1609-2	FS61	101	119
890-1609-3	FS62	106	105
890-1609-4	FS63	101	118
890-1609-5	SW47	111	108
890-1609-6	SW48	116	117
890-1666-A-121-F MS	Matrix Spike	95	89
890-1666-A-121-G MSD	Matrix Spike Duplicate	92	88
LCS 880-13113/2-A	Lab Control Sample	299 S1+	284 S1+
LCS 880-14199/2-A	Lab Control Sample	102	108
LCSD 880-13113/3-A	Lab Control Sample Dup	297 S1+	286 S1+
LCSD 880-14199/3-A	Lab Control Sample Dup	100	106
MB 880-13113/1-A	Method Blank	141 S1+	142 S1+
MB 880-14199/1-A	Method Blank	98	119

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13016/5-A
Matrix: Solid
Analysis Batch: 13108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13016

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 10:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 10:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/23/21 16:45	11/24/21 10:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/23/21 16:45	11/24/21 10:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/23/21 16:45	11/24/21 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*11/23/21 16:45*	*11/24/21 10:46*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/23/21 16:45*	*11/24/21 10:46*	*1*

Lab Sample ID: LCS 880-13016/1-A
Matrix: Solid
Analysis Batch: 13108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13016

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09040		mg/Kg		90	70 - 130		
Toluene			0.100	0.08336		mg/Kg		83	70 - 130		
Ethylbenzene			0.100	0.08400		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1755		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08709		mg/Kg		87	70 - 130		

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

Lab Sample ID: LCSD 880-13016/2-A
Matrix: Solid
Analysis Batch: 13108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13016

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08879		mg/Kg		89	70 - 130	2	35
Toluene			0.100	0.08362		mg/Kg		84	70 - 130	0	35
Ethylbenzene			0.100	0.08377		mg/Kg		84	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1743		mg/Kg		87	70 - 130	1	35
o-Xylene			0.100	0.08797		mg/Kg		88	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-1619-A-21-E MSD
Matrix: Solid
Analysis Batch: 13108

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 13016

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.08556		mg/Kg		86	70 - 130	9	35
Toluene	<0.00199	U	0.0996	0.07906		mg/Kg		79	70 - 130	9	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

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

Lab Sample ID: 890-1619-A-21-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13108 — **Prep Batch: 13016**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00199	U	0.0996	0.08020		mg/Kg		81	70 - 130	7	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1678		mg/Kg		84	70 - 130	8	35
o-Xylene	<0.00199	U	0.0996	0.08340		mg/Kg		83	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-1619-A-21-I MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13108 — **Prep Batch: 13016**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0998	0.09349		mg/Kg		94	70 - 130
Toluene	<0.00199	U	0.0998	0.08636		mg/Kg		86	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.08643		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1818		mg/Kg		91	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09019		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: MB 880-13113/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13221 — **Prep Batch: 13113**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/24/21 08:16	11/24/21 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/24/21 08:16	11/24/21 13:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/24/21 08:16	11/24/21 13:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*141*	*S1+*	*70 - 130*	*11/24/21 08:16*	*11/24/21 13:24*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*11/24/21 08:16*	*11/24/21 13:24*	*1*

Lab Sample ID: LCS 880-13113/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 13221 — **Prep Batch: 13113**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	976.6		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	1000	913.3		mg/Kg		91	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

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

Lab Sample ID: LCS 880-13113/2-A
Matrix: Solid
Analysis Batch: 13221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13113

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	299	S1+	70 - 130
o-Terphenyl	284	S1+	70 - 130

Lab Sample ID: LCSD 880-13113/3-A
Matrix: Solid
Analysis Batch: 13221

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13113

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	963.4		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	910.4		mg/Kg		91	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	297	S1+	70 - 130
o-Terphenyl	286	S1+	70 - 130

Lab Sample ID: 890-1609-1 MS
Matrix: Solid
Analysis Batch: 13221

Client Sample ID: FS60
Prep Type: Total/NA
Prep Batch: 13113

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	997	1262		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	187		997	1242		mg/Kg		106	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	127		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: 890-1609-1 MSD
Matrix: Solid
Analysis Batch: 13221

Client Sample ID: FS60
Prep Type: Total/NA
Prep Batch: 13113

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	1717	F1 F2	mg/Kg		170	70 - 130	31	20
Diesel Range Organics (Over C10-C28)	187		999	1101		mg/Kg		91	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	97		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

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

Lab Sample ID: MB 880-14199/1-A
Matrix: Solid
Analysis Batch: 14177

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14199

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/07/21 13:23	12/07/21 22:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/07/21 13:23	12/07/21 22:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/07/21 13:23	12/07/21 22:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*12/07/21 13:23*	*12/07/21 22:04*	*1*
o-Terphenyl	*119*		*70 - 130*	*12/07/21 13:23*	*12/07/21 22:04*	*1*

Lab Sample ID: LCS 880-14199/2-A
Matrix: Solid
Analysis Batch: 14177

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14199

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	937.9		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	918.5		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-14199/3-A
Matrix: Solid
Analysis Batch: 14177

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14199

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	921.5		mg/Kg		92	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	906.6		mg/Kg		91	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: 890-1666-A-121-F MS
Matrix: Solid
Analysis Batch: 14177

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	945.6		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1211		mg/Kg		121	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

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

Lab Sample ID: 890-1666-A-121-F MS
Matrix: Solid
Analysis Batch: 14177

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14199

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-1666-A-121-G MSD
Matrix: Solid
Analysis Batch: 14177

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14199

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	966.4		mg/Kg		94	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1204		mg/Kg		121	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	88		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13079/1-A
Matrix: Solid
Analysis Batch: 13774

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/03/21 00:28	1

Lab Sample ID: LCS 880-13079/2-A
Matrix: Solid
Analysis Batch: 13774

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	245.7		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-13079/3-A
Matrix: Solid
Analysis Batch: 13774

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	240.5		mg/Kg		96	90 - 110	2	20

Lab Sample ID: 890-1609-1 MS
Matrix: Solid
Analysis Batch: 13774

Client Sample ID: FS60
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<4.99	U	250	262.2		mg/Kg		104	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1609-1 MSD
Matrix: Solid
Analysis Batch: 13774

Client Sample ID: FS60
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.99	U	250	256.7		mg/Kg		101	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

GC VOA

Prep Batch: 13016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Total/NA	Solid	5035	
890-1609-2	FS61	Total/NA	Solid	5035	
890-1609-3	FS62	Total/NA	Solid	5035	
890-1609-4	FS63	Total/NA	Solid	5035	
890-1609-5	SW47	Total/NA	Solid	5035	
890-1609-6	SW48	Total/NA	Solid	5035	
MB 880-13016/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13016/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13016/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1619-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
890-1619-A-21-I MS	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 13108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Total/NA	Solid	8021B	13016
890-1609-2	FS61	Total/NA	Solid	8021B	13016
890-1609-3	FS62	Total/NA	Solid	8021B	13016
890-1609-4	FS63	Total/NA	Solid	8021B	13016
890-1609-5	SW47	Total/NA	Solid	8021B	13016
890-1609-6	SW48	Total/NA	Solid	8021B	13016
MB 880-13016/5-A	Method Blank	Total/NA	Solid	8021B	13016
LCS 880-13016/1-A	Lab Control Sample	Total/NA	Solid	8021B	13016
LCSD 880-13016/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13016
890-1619-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	13016
890-1619-A-21-I MS	Matrix Spike	Total/NA	Solid	8021B	13016

Analysis Batch: 13453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Total/NA	Solid	Total BTEX	
890-1609-2	FS61	Total/NA	Solid	Total BTEX	
890-1609-3	FS62	Total/NA	Solid	Total BTEX	
890-1609-4	FS63	Total/NA	Solid	Total BTEX	
890-1609-5	SW47	Total/NA	Solid	Total BTEX	
890-1609-6	SW48	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 13113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-3	FS62	Total/NA	Solid	8015NM Prep	
890-1609-5	SW47	Total/NA	Solid	8015NM Prep	
890-1609-6	SW48	Total/NA	Solid	8015NM Prep	
MB 880-13113/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13113/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13113/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1609-1 MS	FS60	Total/NA	Solid	8015NM Prep	
890-1609-1 MSD	FS60	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-3	FS62	Total/NA	Solid	8015B NM	13113

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

GC Semi VOA (Continued)

Analysis Batch: 13221 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-5	SW47	Total/NA	Solid	8015B NM	13113
890-1609-6	SW48	Total/NA	Solid	8015B NM	13113
MB 880-13113/1-A	Method Blank	Total/NA	Solid	8015B NM	13113
LCS 880-13113/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13113
LCSD 880-13113/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13113
890-1609-1 MS	FS60	Total/NA	Solid	8015B NM	13113
890-1609-1 MSD	FS60	Total/NA	Solid	8015B NM	13113

Analysis Batch: 13711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Total/NA	Solid	8015 NM	
890-1609-2	FS61	Total/NA	Solid	8015 NM	
890-1609-3	FS62	Total/NA	Solid	8015 NM	
890-1609-4	FS63	Total/NA	Solid	8015 NM	
890-1609-5	SW47	Total/NA	Solid	8015 NM	
890-1609-6	SW48	Total/NA	Solid	8015 NM	

Analysis Batch: 14177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Total/NA	Solid	8015B NM	14199
890-1609-2	FS61	Total/NA	Solid	8015B NM	14199
890-1609-4	FS63	Total/NA	Solid	8015B NM	14199
MB 880-14199/1-A	Method Blank	Total/NA	Solid	8015B NM	14199
LCS 880-14199/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14199
LCSD 880-14199/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14199
890-1666-A-121-F MS	Matrix Spike	Total/NA	Solid	8015B NM	14199
890-1666-A-121-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14199

Prep Batch: 14199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Total/NA	Solid	8015NM Prep	
890-1609-2	FS61	Total/NA	Solid	8015NM Prep	
890-1609-4	FS63	Total/NA	Solid	8015NM Prep	
MB 880-14199/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14199/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14199/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1666-A-121-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1666-A-121-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 13079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Soluble	Solid	DI Leach	
890-1609-2	FS61	Soluble	Solid	DI Leach	
890-1609-3	FS62	Soluble	Solid	DI Leach	
890-1609-4	FS63	Soluble	Solid	DI Leach	
890-1609-5	SW47	Soluble	Solid	DI Leach	
890-1609-6	SW48	Soluble	Solid	DI Leach	
MB 880-13079/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13079/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

HPLC/IC (Continued)

Leach Batch: 13079 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-13079/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1609-1 MS	FS60	Soluble	Solid	DI Leach	
890-1609-1 MSD	FS60	Soluble	Solid	DI Leach	

Analysis Batch: 13774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1609-1	FS60	Soluble	Solid	300.0	13079
890-1609-2	FS61	Soluble	Solid	300.0	13079
890-1609-3	FS62	Soluble	Solid	300.0	13079
890-1609-4	FS63	Soluble	Solid	300.0	13079
890-1609-5	SW47	Soluble	Solid	300.0	13079
890-1609-6	SW48	Soluble	Solid	300.0	13079
MB 880-13079/1-A	Method Blank	Soluble	Solid	300.0	13079
LCS 880-13079/2-A	Lab Control Sample	Soluble	Solid	300.0	13079
LCSD 880-13079/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13079
890-1609-1 MS	FS60	Soluble	Solid	300.0	13079
890-1609-1 MSD	FS60	Soluble	Solid	300.0	13079

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: FS60
Date Collected: 11/19/21 10:55
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13016	11/23/21 16:45	KL	XEN MID
Total/NA	Analysis	8021B		1	13108	11/24/21 12:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 15:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14199	12/07/21 13:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14177	12/08/21 05:00	AJ	XEN MID
Soluble	Leach	DI Leach			13079	11/23/21 13:23	SC	XEN MID
Soluble	Analysis	300.0		1	13774	12/03/21 01:03	CH	XEN MID

Client Sample ID: FS61
Date Collected: 11/19/21 11:00
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13016	11/23/21 16:45	KL	XEN MID
Total/NA	Analysis	8021B		1	13108	11/24/21 13:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 15:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14199	12/07/21 13:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14177	12/08/21 05:24	AJ	XEN MID
Soluble	Leach	DI Leach			13079	11/23/21 13:23	SC	XEN MID
Soluble	Analysis	300.0		1	13774	12/03/21 01:37	CH	XEN MID

Client Sample ID: FS62
Date Collected: 11/19/21 11:05
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13016	11/23/21 16:45	KL	XEN MID
Total/NA	Analysis	8021B		1	13108	11/24/21 13:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 15:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13113	11/24/21 08:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13221	11/24/21 15:58	AJ	XEN MID
Soluble	Leach	DI Leach			13079	11/23/21 13:23	SC	XEN MID
Soluble	Analysis	300.0		1	13774	12/03/21 13:12	CH	XEN MID

Client Sample ID: FS63
Date Collected: 11/19/21 11:10
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13016	11/23/21 16:45	KL	XEN MID
Total/NA	Analysis	8021B		1	13108	11/24/21 13:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 15:30	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Client Sample ID: FS63
Date Collected: 11/19/21 11:10
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14199	12/07/21 13:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14177	12/08/21 05:46	AJ	XEN MID
Soluble	Leach	DI Leach			13079	11/23/21 13:23	SC	XEN MID
Soluble	Analysis	300.0		1	13774	12/03/21 13:23	CH	XEN MID

Client Sample ID: SW47
Date Collected: 11/19/21 12:55
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13016	11/23/21 16:45	KL	XEN MID
Total/NA	Analysis	8021B		1	13108	11/24/21 14:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 15:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13113	11/24/21 08:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13221	11/24/21 16:43	AJ	XEN MID
Soluble	Leach	DI Leach			13079	11/23/21 13:23	SC	XEN MID
Soluble	Analysis	300.0		1	13774	12/03/21 02:11	CH	XEN MID

Client Sample ID: SW48
Date Collected: 11/19/21 13:50
Date Received: 11/22/21 08:47

Lab Sample ID: 890-1609-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			13016	11/23/21 16:45	KL	XEN MID
Total/NA	Analysis	8021B		1	13108	11/24/21 15:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	13453	11/30/21 15:30	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	13711	12/01/21 20:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			13113	11/24/21 08:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1	13221	11/24/21 17:06	AJ	XEN MID
Soluble	Leach	DI Leach			13079	11/23/21 13:23	SC	XEN MID
Soluble	Analysis	300.0		1	13774	12/03/21 02:45	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1609-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1609-1	FS60	Solid	11/19/21 10:55	11/22/21 08:47	1
890-1609-2	FS61	Solid	11/19/21 11:00	11/22/21 08:47	1
890-1609-3	FS62	Solid	11/19/21 11:05	11/22/21 08:47	1
890-1609-4	FS63	Solid	11/19/21 11:10	11/22/21 08:47	1
890-1609-5	SW47	Solid	11/19/21 12:55	11/22/21 08:47	0 - 2
890-1609-6	SW48	Solid	11/19/21 13:50	11/22/21 08:47	0 - 4

Page 298 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.4/1.2	Thermometer ID		
Received Intact:	Yes No	TNM003		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS60	S	11/19/2021	1055	1'	1	x	x	x
FS61	S	11/19/2021	1100	1'	1	x	x	x
FS62	S	11/19/2021	1105	1'	1	x	x	x
FS63	S	11/19/2021	1110	1'	1	x	x	x
SW47	S	11/19/2021	1255	0-2'	1	x	x	x
SW48	S	11/19/2021	1350	0-4'	1	x	x	x

ANALYSIS REQUEST

890-1609 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

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

Sample Comments

COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE

AC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Chi Ukoo	AveGuzman	11.22.21 0847	2		
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Page 25 of 28

12/13/2021 (Rev. 1)

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-518 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1609-1
Address: 1211 W Florida Ave	Due Date Requested: 11/30/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS60 (890-1609-1)	11/19/21	10 55 Mountain		Solid			X	X	X	X	X	1	
FS61 (890-1609-2)	11/19/21	11 00 Mountain		Solid			X	X	X	X	X	1	
FS62 (890-1609-3)	11/19/21	11 05 Mountain		Solid			X	X	X	X	X	1	
FS63 (890-1609-4)	11/19/21	11 10 Mountain		Solid			X	X	X	X	X	1	
SW47 (890-1609-5)	11/19/21	12 55 Mountain		Solid			X	X	X	X	X	1	
SW48 (890-1609-6)	11/19/21	13 50 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Cue Cuff 11.22.21			Kramer	11.23.21 1250	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 26/27

Ver 06/08/2021

Page 299 of 799
Received by OCD: 3/4/2022 1:28:26 PM
12/13/2021 (Rev. 1)
Page 26 of 28
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1609-1
SDG Number: te012929159

Login Number: 1609
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1609-1
SDG Number: te012929159

Login Number: 1609
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/23/21 12:51 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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1735-1
Laboratory Sample Delivery Group: TEO 12929159
Client Project/Site: Ross Ranch 6

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
12/22/2021 3:32:31 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1735-1
SDG: TEO 12929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 13
QC Sample Results 14
QC Association Summary 18
Lab Chronicle 21
Certification Summary 24
Method Summary 25
Sample Summary 26
Chain of Custody 27
Receipt Checklists 29

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

Job ID: 890-1735-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1735-1

Receipt
The samples were received on 12/20/2021 1:02 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: SW58 (890-1735-4) and FS50 (890-1735-7). 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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15243 and analytical batch 880-15246 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.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: SW50 (890-1735-1), SW53 (890-1735-2), FS53 (890-1735-3), SW58 (890-1735-4), SW57 (890-1735-5), SW59 (890-1735-6), FS50 (890-1735-7), SW60 (890-1735-8), FS44 (890-1735-9), (CCV 880-15246/19), (CCV 880-15246/3), (LCSD 880-15243/3-A), (890-1735-A-1-E MS) and (890-1735-A-1-F MSD). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (LCS 880-15243/2-A) and (MB 880-15243/1-A). Percent recoveries are based on the amount spiked.

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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: SW50

Lab Sample ID: 890-1735-1
Matrix: Solid
Date Collected: 12/16/21 10:00
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/21/21 07:16	12/21/21 13:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/21/21 07:16	12/21/21 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*12/21/21 07:16*	*12/21/21 13:23*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*12/21/21 07:16*	*12/21/21 13:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**80.3**		49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 16:17	1
Diesel Range Organics (Over C10-C28)	**80.3**	**F1**	49.9		mg/Kg		12/21/21 10:22	12/21/21 16:17	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*50*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 16:17*	*1*
o-Terphenyl	*55*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 16:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**320**		5.05		mg/Kg			12/21/21 18:13	1

Client Sample ID: SW53

Lab Sample ID: 890-1735-2
Matrix: Solid
Date Collected: 12/16/21 10:20
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/21/21 07:16	12/21/21 13:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 13:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/21/21 07:16	12/21/21 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*12/21/21 07:16*	*12/21/21 13:44*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: SW53

Lab Sample ID: 890-1735-2
Matrix: Solid
Date Collected: 12/16/21 10:20
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*12/21/21 07:16*	*12/21/21 13:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/21/21 10:22	12/21/21 17:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/21/21 10:22	12/21/21 17:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/21/21 10:22	12/21/21 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*47*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 17:19*	*1*
o-Terphenyl	*52*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 17:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.9**		4.99	mg/Kg			12/21/21 18:48	1

Client Sample ID: FS53

Lab Sample ID: 890-1735-3
Matrix: Solid
Date Collected: 12/16/21 10:55
Date Received: 12/20/21 13:02
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/21/21 07:16	12/21/21 14:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/21/21 07:16	12/21/21 14:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/21/21 07:16	12/21/21 14:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/21/21 07:16	12/21/21 14:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/21/21 07:16	12/21/21 14:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/21/21 07:16	12/21/21 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*12/21/21 07:16*	*12/21/21 14:04*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*12/21/21 07:16*	*12/21/21 14:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/21/21 15:44	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: FS53

Lab Sample ID: 890-1735-3
Matrix: Solid
Date Collected: 12/16/21 10:55
Date Received: 12/20/21 13:02
Sample Depth: 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 17:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 17:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*51*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 17:39*	*1*
o-Terphenyl	*55*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 17:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.8**		4.97		mg/Kg			12/21/21 19:00	1

Client Sample ID: SW58

Lab Sample ID: 890-1735-4
Matrix: Solid
Date Collected: 12/16/21 11:10
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:16	12/21/21 14:24	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:16	12/21/21 14:24	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:16	12/21/21 14:24	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		12/21/21 07:16	12/21/21 14:24	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:16	12/21/21 14:24	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		12/21/21 07:16	12/21/21 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*142*	*S1+*	*70 - 130*	*12/21/21 07:16*	*12/21/21 14:24*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*12/21/21 07:16*	*12/21/21 14:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 18:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 18:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 18:00*	*1*
o-Terphenyl	*59*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 18:00*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: SW58

Lab Sample ID: 890-1735-4
Matrix: Solid
Date Collected: 12/16/21 11:10
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.6		4.98		mg/Kg			12/21/21 19:12	1

Client Sample ID: SW57

Lab Sample ID: 890-1735-5
Matrix: Solid
Date Collected: 12/16/21 12:25
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 14:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 14:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 14:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/21/21 07:16	12/21/21 14:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 14:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/21/21 07:16	12/21/21 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*12/21/21 07:16*	*12/21/21 14:45*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*12/21/21 07:16*	*12/21/21 14:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/21/21 10:22	12/21/21 18:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/21/21 10:22	12/21/21 18:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/21/21 10:22	12/21/21 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*54*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 18:21*	*1*
o-Terphenyl	*59*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 18:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1		4.95		mg/Kg			12/21/21 19:24	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: SW59

Lab Sample ID: 890-1735-6
Matrix: Solid
Date Collected: 12/16/21 13:15
Date Received: 12/20/21 13:02
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/21/21 07:16	12/21/21 15:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/21/21 07:16	12/21/21 15:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/21/21 07:16	12/21/21 15:05	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/21/21 07:16	12/21/21 15:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/21/21 07:16	12/21/21 15:05	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/21/21 07:16	12/21/21 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*12/21/21 07:16*	*12/21/21 15:05*	*1*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*12/21/21 07:16*	*12/21/21 15:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**899**		49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 18:41	1
Diesel Range Organics (Over C10-C28)	**778**		49.9		mg/Kg		12/21/21 10:22	12/21/21 18:41	1
Oil Range Organics (Over C28-C36)	**121**		49.9		mg/Kg		12/21/21 10:22	12/21/21 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*52*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 18:41*	*1*
o-Terphenyl	*56*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 18:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**47.4**		5.04		mg/Kg			12/21/21 20:00	1

Client Sample ID: FS50

Lab Sample ID: 890-1735-7
Matrix: Solid
Date Collected: 12/16/21 13:25
Date Received: 12/20/21 13:02
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/21/21 07:16	12/21/21 15:26	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/21/21 07:16	12/21/21 15:26	1
Ethylbenzene	**0.110**		0.00201		mg/Kg		12/21/21 07:16	12/21/21 15:26	1
m-Xylene & p-Xylene	**0.324**		0.00402		mg/Kg		12/21/21 07:16	12/21/21 15:26	1
o-Xylene	**0.231**		0.00201		mg/Kg		12/21/21 07:16	12/21/21 15:26	1
Xylenes, Total	**0.555**		0.00402		mg/Kg		12/21/21 07:16	12/21/21 15:26	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: FS50

Lab Sample ID: 890-1735-7
Matrix: Solid
Date Collected: 12/16/21 13:25
Date Received: 12/20/21 13:02
Sample Depth: 4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	932	S1+	70 - 130	12/21/21 07:16	12/21/21 15:26	1
1,4-Difluorobenzene (Surr)	96		70 - 130	12/21/21 07:16	12/21/21 15:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.665		0.00402		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1080		50.0		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	204		50.0		mg/Kg		12/21/21 10:22	12/21/21 19:02	1
Diesel Range Organics (Over C10-C28)	772		50.0		mg/Kg		12/21/21 10:22	12/21/21 19:02	1
Oil Range Organics (Over C28-C36)	104		50.0		mg/Kg		12/21/21 10:22	12/21/21 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	56	S1-	70 - 130	12/21/21 10:22	12/21/21 19:02	1
o-Terphenyl	60	S1-	70 - 130	12/21/21 10:22	12/21/21 19:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1040		4.98		mg/Kg			12/21/21 20:12	1

Client Sample ID: SW60

Lab Sample ID: 890-1735-8
Matrix: Solid
Date Collected: 12/16/21 13:35
Date Received: 12/20/21 13:02
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 15:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 15:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 15:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/21/21 07:16	12/21/21 15:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:16	12/21/21 15:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/21/21 07:16	12/21/21 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	12/21/21 07:16	12/21/21 15:46	1
1,4-Difluorobenzene (Surr)	109		70 - 130	12/21/21 07:16	12/21/21 15:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/22/21 12:38	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: SW60

Lab Sample ID: 890-1735-8
Matrix: Solid
Date Collected: 12/16/21 13:35
Date Received: 12/20/21 13:02
Sample Depth: 0 - 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**56.3**		49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 19:22	1
Diesel Range Organics (Over C10-C28)	**56.3**		49.9		mg/Kg		12/21/21 10:22	12/21/21 19:22	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*49*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 19:22*	*1*
o-Terphenyl	*54*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 19:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**149**		4.95		mg/Kg			12/21/21 20:23	1

Client Sample ID: FS44

Lab Sample ID: 890-1735-9
Matrix: Solid
Date Collected: 12/16/21 14:20
Date Received: 12/20/21 13:02
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 16:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 16:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 16:06	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/21/21 07:16	12/21/21 16:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:16	12/21/21 16:06	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/21/21 07:16	12/21/21 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*12/21/21 07:16*	*12/21/21 16:06*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*12/21/21 07:16*	*12/21/21 16:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**58.9**		49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 19:43	1
Diesel Range Organics (Over C10-C28)	**58.9**		49.9		mg/Kg		12/21/21 10:22	12/21/21 19:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 19:43	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Client Sample ID: FS44
Date Collected: 12/16/21 14:20
Date Received: 12/20/21 13:02
Sample Depth: 3

Lab Sample ID: 890-1735-9
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*49*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 19:43*	*1*
o-Terphenyl	*53*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 19:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.2		4.99	mg/Kg			12/21/21 20:35	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1735-1	SW50	101	71
890-1735-1 MS	SW50	104	103
890-1735-1 MSD	SW50	104	103
890-1735-2	SW53	115	97
890-1735-3	FS53	117	104
890-1735-4	SW58	142 S1+	120
890-1735-5	SW57	114	76
890-1735-6	SW59	123	126
890-1735-7	FS50	932 S1+	96
890-1735-8	SW60	121	109
890-1735-9	FS44	114	104
LCS 880-15226/1-A	Lab Control Sample	105	107
LCSD 880-15226/2-A	Lab Control Sample Dup	101	106
MB 880-15225/5-A	Method Blank	115	104

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1735-1	SW50	50 S1-	55 S1-
890-1735-1 MS	SW50	50 S1-	49 S1-
890-1735-1 MSD	SW50	50 S1-	49 S1-
890-1735-2	SW53	47 S1-	52 S1-
890-1735-3	FS53	51 S1-	55 S1-
890-1735-4	SW58	54 S1-	59 S1-
890-1735-5	SW57	54 S1-	59 S1-
890-1735-6	SW59	52 S1-	56 S1-
890-1735-7	FS50	56 S1-	60 S1-
890-1735-8	SW60	49 S1-	54 S1-
890-1735-9	FS44	49 S1-	53 S1-
LCS 880-15243/2-A	Lab Control Sample	60 S1-	63 S1-
LCSD 880-15243/3-A	Lab Control Sample Dup	63 S1-	68 S1-
MB 880-15243/1-A	Method Blank	68 S1-	78

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15225/5-A
Matrix: Solid
Analysis Batch: 15228

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15225

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/21/21 07:13	12/21/21 10:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/21/21 07:13	12/21/21 10:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*12/21/21 07:13*	*12/21/21 10:28*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*12/21/21 07:13*	*12/21/21 10:28*	*1*

Lab Sample ID: LCS 880-15226/1-A
Matrix: Solid
Analysis Batch: 15228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09163		mg/Kg		92	70 - 130		
Toluene			0.100	0.08389		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08356		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1730		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08483		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-15226/2-A
Matrix: Solid
Analysis Batch: 15228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1003		mg/Kg		100	70 - 130	9	35
Toluene			0.100	0.08843		mg/Kg		88	70 - 130	5	35
Ethylbenzene			0.100	0.08907		mg/Kg		89	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1839		mg/Kg		92	70 - 130	6	35
o-Xylene			0.100	0.08987		mg/Kg		90	70 - 130	6	35

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

Lab Sample ID: 890-1735-1 MS
Matrix: Solid
Analysis Batch: 15228

Client Sample ID: SW50
Prep Type: Total/NA
Prep Batch: 15226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.101	0.1059		mg/Kg		105	70 - 130		
Toluene	<0.00199	U	0.101	0.09720		mg/Kg		96	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

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

Lab Sample ID: 890-1735-1 MS
Matrix: Solid
Analysis Batch: 15228

Client Sample ID: SW50
Prep Type: Total/NA
Prep Batch: 15226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.101	0.09341		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1925		mg/Kg		95	70 - 130
o-Xylene	<0.00199	U	0.101	0.09339		mg/Kg		92	70 - 130

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

Lab Sample ID: 890-1735-1 MSD
Matrix: Solid
Analysis Batch: 15228

Client Sample ID: SW50
Prep Type: Total/NA
Prep Batch: 15226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.1034		mg/Kg		104	70 - 130	2	35
Toluene	<0.00199	U	0.0996	0.09501		mg/Kg		95	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.0996	0.09195		mg/Kg		92	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1904		mg/Kg		96	70 - 130	1	35
o-Xylene	<0.00199	U	0.0996	0.09237		mg/Kg		93	70 - 130	1	35

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

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

Lab Sample ID: MB 880-15243/1-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15243

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 14:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 14:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 14:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 14:35*	*1*
o-Terphenyl	*78*		*70 - 130*	*12/21/21 10:22*	*12/21/21 14:35*	*1*

Lab Sample ID: LCS 880-15243/2-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	939.5		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.7		mg/Kg		79	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

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

Lab Sample ID: LCS 880-15243/2-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15243

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	60	S1-	70 - 130
o-Terphenyl	63	S1-	70 - 130

Lab Sample ID: LCSD 880-15243/3-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15243

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	978.1		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	794.7		mg/Kg		79	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	63	S1-	70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 890-1735-1 MS
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: SW50
Prep Type: Total/NA
Prep Batch: 15243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1091		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	80.3	F1	996	736.2	F1	mg/Kg		66	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	50	S1-	70 - 130
o-Terphenyl	49	S1-	70 - 130

Lab Sample ID: 890-1735-1 MSD
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: SW50
Prep Type: Total/NA
Prep Batch: 15243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	1086		mg/Kg		109	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	80.3	F1	995	729.5	F1	mg/Kg		65	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	50	S1-	70 - 130
o-Terphenyl	49	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15256/1-A
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/21/21 17:37	1

Lab Sample ID: LCS 880-15256/2-A
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.6		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-15256/3-A
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	258.5		mg/Kg		103	90 - 110	5	20

Lab Sample ID: 890-1735-1 MS
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: SW50
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	320		253	559.1		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1735-1 MSD
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: SW50
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	320		253	561.4		mg/Kg		96	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

GC VOA

Prep Batch: 15225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15225/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 15226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Total/NA	Solid	5035	
890-1735-2	SW53	Total/NA	Solid	5035	
890-1735-3	FS53	Total/NA	Solid	5035	
890-1735-4	SW58	Total/NA	Solid	5035	
890-1735-5	SW57	Total/NA	Solid	5035	
890-1735-6	SW59	Total/NA	Solid	5035	
890-1735-7	FS50	Total/NA	Solid	5035	
890-1735-8	SW60	Total/NA	Solid	5035	
890-1735-9	FS44	Total/NA	Solid	5035	
LCS 880-15226/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15226/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1735-1 MS	SW50	Total/NA	Solid	5035	
890-1735-1 MSD	SW50	Total/NA	Solid	5035	

Analysis Batch: 15228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Total/NA	Solid	8021B	15226
890-1735-2	SW53	Total/NA	Solid	8021B	15226
890-1735-3	FS53	Total/NA	Solid	8021B	15226
890-1735-4	SW58	Total/NA	Solid	8021B	15226
890-1735-5	SW57	Total/NA	Solid	8021B	15226
890-1735-6	SW59	Total/NA	Solid	8021B	15226
890-1735-7	FS50	Total/NA	Solid	8021B	15226
890-1735-8	SW60	Total/NA	Solid	8021B	15226
890-1735-9	FS44	Total/NA	Solid	8021B	15226
MB 880-15225/5-A	Method Blank	Total/NA	Solid	8021B	15225
LCS 880-15226/1-A	Lab Control Sample	Total/NA	Solid	8021B	15226
LCSD 880-15226/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15226
890-1735-1 MS	SW50	Total/NA	Solid	8021B	15226
890-1735-1 MSD	SW50	Total/NA	Solid	8021B	15226

Analysis Batch: 15276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Total/NA	Solid	Total BTEX	

Analysis Batch: 15380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-2	SW53	Total/NA	Solid	Total BTEX	
890-1735-3	FS53	Total/NA	Solid	Total BTEX	
890-1735-4	SW58	Total/NA	Solid	Total BTEX	
890-1735-5	SW57	Total/NA	Solid	Total BTEX	
890-1735-6	SW59	Total/NA	Solid	Total BTEX	
890-1735-7	FS50	Total/NA	Solid	Total BTEX	
890-1735-8	SW60	Total/NA	Solid	Total BTEX	
890-1735-9	FS44	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

GC Semi VOA

Prep Batch: 15243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Total/NA	Solid	8015NM Prep	
890-1735-2	SW53	Total/NA	Solid	8015NM Prep	
890-1735-3	FS53	Total/NA	Solid	8015NM Prep	
890-1735-4	SW58	Total/NA	Solid	8015NM Prep	
890-1735-5	SW57	Total/NA	Solid	8015NM Prep	
890-1735-6	SW59	Total/NA	Solid	8015NM Prep	
890-1735-7	FS50	Total/NA	Solid	8015NM Prep	
890-1735-8	SW60	Total/NA	Solid	8015NM Prep	
890-1735-9	FS44	Total/NA	Solid	8015NM Prep	
MB 880-15243/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15243/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1735-1 MS	SW50	Total/NA	Solid	8015NM Prep	
890-1735-1 MSD	SW50	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Total/NA	Solid	8015B NM	15243
890-1735-2	SW53	Total/NA	Solid	8015B NM	15243
890-1735-3	FS53	Total/NA	Solid	8015B NM	15243
890-1735-4	SW58	Total/NA	Solid	8015B NM	15243
890-1735-5	SW57	Total/NA	Solid	8015B NM	15243
890-1735-6	SW59	Total/NA	Solid	8015B NM	15243
890-1735-7	FS50	Total/NA	Solid	8015B NM	15243
890-1735-8	SW60	Total/NA	Solid	8015B NM	15243
890-1735-9	FS44	Total/NA	Solid	8015B NM	15243
MB 880-15243/1-A	Method Blank	Total/NA	Solid	8015B NM	15243
LCS 880-15243/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15243
LCSD 880-15243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15243
890-1735-1 MS	SW50	Total/NA	Solid	8015B NM	15243
890-1735-1 MSD	SW50	Total/NA	Solid	8015B NM	15243

Analysis Batch: 15281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Total/NA	Solid	8015 NM	
890-1735-2	SW53	Total/NA	Solid	8015 NM	
890-1735-3	FS53	Total/NA	Solid	8015 NM	
890-1735-4	SW58	Total/NA	Solid	8015 NM	
890-1735-5	SW57	Total/NA	Solid	8015 NM	
890-1735-6	SW59	Total/NA	Solid	8015 NM	
890-1735-7	FS50	Total/NA	Solid	8015 NM	
890-1735-8	SW60	Total/NA	Solid	8015 NM	
890-1735-9	FS44	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Soluble	Solid	DI Leach	
890-1735-2	SW53	Soluble	Solid	DI Leach	
890-1735-3	FS53	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

HPLC/IC (Continued)

Leach Batch: 15256 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-4	SW58	Soluble	Solid	DI Leach	
890-1735-5	SW57	Soluble	Solid	DI Leach	
890-1735-6	SW59	Soluble	Solid	DI Leach	
890-1735-7	FS50	Soluble	Solid	DI Leach	
890-1735-8	SW60	Soluble	Solid	DI Leach	
890-1735-9	FS44	Soluble	Solid	DI Leach	
MB 880-15256/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15256/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15256/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1735-1 MS	SW50	Soluble	Solid	DI Leach	
890-1735-1 MSD	SW50	Soluble	Solid	DI Leach	

Analysis Batch: 15270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1735-1	SW50	Soluble	Solid	300.0	15256
890-1735-2	SW53	Soluble	Solid	300.0	15256
890-1735-3	FS53	Soluble	Solid	300.0	15256
890-1735-4	SW58	Soluble	Solid	300.0	15256
890-1735-5	SW57	Soluble	Solid	300.0	15256
890-1735-6	SW59	Soluble	Solid	300.0	15256
890-1735-7	FS50	Soluble	Solid	300.0	15256
890-1735-8	SW60	Soluble	Solid	300.0	15256
890-1735-9	FS44	Soluble	Solid	300.0	15256
MB 880-15256/1-A	Method Blank	Soluble	Solid	300.0	15256
LCS 880-15256/2-A	Lab Control Sample	Soluble	Solid	300.0	15256
LCSD 880-15256/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15256
890-1735-1 MS	SW50	Soluble	Solid	300.0	15256
890-1735-1 MSD	SW50	Soluble	Solid	300.0	15256

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

Client Sample ID: SW50 Lab Sample ID: 890-1735-1

Date Collected: 12/16/21 10:00 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 13:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 16:17	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 18:13	SC	XEN MID

Client Sample ID: SW53 Lab Sample ID: 890-1735-2

Date Collected: 12/16/21 10:20 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 13:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 17:19	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 18:48	SC	XEN MID

Client Sample ID: FS53 Lab Sample ID: 890-1735-3

Date Collected: 12/16/21 10:55 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 14:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 17:39	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 19:00	SC	XEN MID

Client Sample ID: SW58 Lab Sample ID: 890-1735-4

Date Collected: 12/16/21 11:10 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 14:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

Client Sample ID: SW58 Lab Sample ID: 890-1735-4

Date Collected: 12/16/21 11:10 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 18:00	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 19:12	SC	XEN MID

Client Sample ID: SW57 Lab Sample ID: 890-1735-5

Date Collected: 12/16/21 12:25 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 14:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 18:21	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 19:24	SC	XEN MID

Client Sample ID: SW59 Lab Sample ID: 890-1735-6

Date Collected: 12/16/21 13:15 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 15:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 18:41	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 20:00	SC	XEN MID

Client Sample ID: FS50 Lab Sample ID: 890-1735-7

Date Collected: 12/16/21 13:25 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 15:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 19:02	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

Client Sample ID: FS50 Lab Sample ID: 890-1735-7

Date Collected: 12/16/21 13:25 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 20:12	SC	XEN MID

Client Sample ID: SW60 Lab Sample ID: 890-1735-8

Date Collected: 12/16/21 13:35 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 15:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 19:22	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 20:23	SC	XEN MID

Client Sample ID: FS44 Lab Sample ID: 890-1735-9

Date Collected: 12/16/21 14:20 **Matrix: Solid**
Date Received: 12/20/21 13:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15226	12/21/21 07:16	KL	XEN MID
Total/NA	Analysis	8021B		1	15228	12/21/21 16:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 19:43	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 20:35	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1735-1
Project/Site: Ross Ranch 6 SDG: TEO 12929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1735-1
SDG: TEO 12929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1735-1	SW50	Solid	12/16/21 10:00	12/20/21 13:02	0 - 3
890-1735-2	SW53	Solid	12/16/21 10:20	12/20/21 13:02	0 - 3
890-1735-3	FS53	Solid	12/16/21 10:55	12/20/21 13:02	3
890-1735-4	SW58	Solid	12/16/21 11:10	12/20/21 13:02	0 - 3
890-1735-5	SW57	Solid	12/16/21 12:25	12/20/21 13:02	0 - 3
890-1735-6	SW59	Solid	12/16/21 13:15	12/20/21 13:02	0 - 3
890-1735-7	FS50	Solid	12/16/21 13:25	12/20/21 13:02	4
890-1735-8	SW60	Solid	12/16/21 13:35	12/20/21 13:02	0 - 4
890-1735-9	FS44	Solid	12/16/21 14:20	12/20/21 13:02	3

Page 328 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

12/22/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒ AC
P.O. Number:	CC: 1138871001	Rush:	24hr
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	32 / 3.0	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW50	S	12/16/2021	1000	0-3'	1	x	x	x	COMPOSITE
SW53	S	12/16/2021	1020	0-3'	1	x	x	x	COMPOSITE
FS53	S	12/16/2021	1055	3'	1	x	x	x	COMPOSITE
SW58	S	12/16/2021	1110	0-3'	1	x	x	x	COMPOSITE
SW57	S	12/16/2021	1225	0-3'	1	x	x	x	COMPOSITE
SW59	S	12/16/2021	1315	0-3'	1	x	x	x	COMPOSITE
FS50	S	12/16/2021	1325	4'	1	x	x	x	COMPOSITE
SW60	S	12/16/2021	1335	0-4'	1	x	x	x	COMPOSITE
FS44	S	12/16/2021	1420	3'	1	x	x	x	COMPOSITE

AC

890-1735 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Page 27 of 30

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/20/21 12:56	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s)	COC No: 890-554 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1735-1
Address: 1211 W Florida Ave	Due Date Requested: 12/21/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I Ice, J DI Water, K - EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q - Na2SO3, R - Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW50 (890-1735-1)	12/16/21	10 00 Mountain		Solid			X	X	X	X	X	1	
SW53 (890-1735-2)	12/16/21	10 20 Mountain		Solid			X	X	X	X	X	1	
FS53 (890-1735-3)	12/16/21	10 55 Mountain		Solid			X	X	X	X	X	1	
SW58 (890-1735-4)	12/16/21	11 10 Mountain		Solid			X	X	X	X	X	1	
SW57 (890-1735-5)	12/16/21	12 25 Mountain		Solid			X	X	X	X	X	1	
SW59 (890-1735-6)	12/16/21	13 15 Mountain		Solid			X	X	X	X	X	1	
FS50 (890-1735-7)	12/16/21	13 25 Mountain		Solid			X	X	X	X	X	1	
SW60 (890-1735-8)	12/16/21	13 35 Mountain		Solid			X	X	X	X	X	1	
FS44 (890-1735-9)	12/16/21	14 20 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III, IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time: 12/20/21	Company	Received by	Date/Time: 12/21/21 12:45	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.8/4.9 .10 IR8

Ver: 06/08/2021

Page 329 of 799
Received by OCD: 3/4/2022 1:28:26 PM
12/22/2021
Page 28 of 30
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1735-1
SDG Number: TEO 12929159

Login Number: 1735
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1735-1
SDG Number: TEO 12929159

Login Number: 1735
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland
List Creation: 12/21/21 12:50 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1721-1
Laboratory Sample Delivery Group: TE012929159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Tacoma Morrissey

Jkramer

Authorized for release by:
12/30/2021 11:36:49 AM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
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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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1721-1
SDG: TE012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 22

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Job ID: 890-1721-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1721-1

REVISION

The report being provided is a revision of the original report sent on 12/23/2021. The report (revision 1) is being revised due to Per client email, revising sample IDs.

Report revision history

Receipt
The samples were received on 12/15/2021 2:33 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 sample was outside control limits: (890-1730-A-1-D). 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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15243 and analytical batch 880-15246 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.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: FS60A (890-1721-1), FS61A (890-1721-2), FS62A (890-1721-3), SW49 (890-1721-4), (CCV 880-15246/19), (CCV 880-15246/3), (CCV 880-15246/30), (LCSD 880-15243/3-A), (890-1735-A-1-D), (890-1735-A-1-E MS) and (890-1735-A-1-F MSD). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (LCS 880-15243/2-A) and (MB 880-15243/1-A). Percent recoveries are based on the amount spiked.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-15089 and analytical batch 880-15128 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Client Sample ID: FS60A
Date Collected: 12/14/21 12:25
Date Received: 12/15/21 14:33
Sample Depth: 3

Lab Sample ID: 890-1721-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/20/21 07:30	12/20/21 18:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/20/21 07:30	12/20/21 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*12/20/21 07:30*	*12/20/21 18:30*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*12/20/21 07:30*	*12/20/21 18:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.9**		50.0		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 20:46	1
Diesel Range Organics (Over C10-C28)	**65.9**		50.0		mg/Kg		12/21/21 10:22	12/21/21 20:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*52*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 20:46*	*1*
o-Terphenyl	*58*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 20:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.3**	**F1**	4.95		mg/Kg			12/20/21 10:22	1

Client Sample ID: FS61A
Date Collected: 12/14/21 12:35
Date Received: 12/15/21 14:33
Sample Depth: 3

Lab Sample ID: 890-1721-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/20/21 07:30	12/20/21 18:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/20/21 07:30	12/20/21 18:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/20/21 07:30	12/20/21 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*12/20/21 07:30*	*12/20/21 18:51*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Client Sample ID: FS61A
Date Collected: 12/14/21 12:35
Date Received: 12/15/21 14:33
Sample Depth: 3

Lab Sample ID: 890-1721-2
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*12/20/21 07:30*	*12/20/21 18:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**79.9**		50.0		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 21:08	1
Diesel Range Organics (Over C10-C28)	**79.9**		50.0		mg/Kg		12/21/21 10:22	12/21/21 21:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 21:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*51*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 21:08*	*1*
o-Terphenyl	*56*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 21:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**93.3**		5.05		mg/Kg			12/20/21 10:42	1

Client Sample ID: FS62A
Date Collected: 12/14/21 12:45
Date Received: 12/15/21 14:33
Sample Depth: 3

Lab Sample ID: 890-1721-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 19:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 19:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 19:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/20/21 07:30	12/20/21 19:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 19:11	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/20/21 07:30	12/20/21 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/20/21 07:30*	*12/20/21 19:11*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*12/20/21 07:30*	*12/20/21 19:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**66.5**		49.9		mg/Kg			12/23/21 12:30	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Client Sample ID: FS62A

Lab Sample ID: 890-1721-3
Matrix: Solid
Date Collected: 12/14/21 12:45
Date Received: 12/15/21 14:33
Sample Depth: 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 21:30	1
Diesel Range Organics (Over C10-C28)	**66.5**		49.9		mg/Kg		12/21/21 10:22	12/21/21 21:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 10:22	12/21/21 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*55*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 21:30*	*1*
o-Terphenyl	*60*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 21:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.6**		4.97		mg/Kg			12/20/21 10:49	1

Client Sample ID: SW49

Lab Sample ID: 890-1721-4
Matrix: Solid
Date Collected: 12/14/21 12:50
Date Received: 12/15/21 14:33
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/20/21 07:30	12/20/21 19:31	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/20/21 07:30	12/20/21 19:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/20/21 07:30	12/20/21 19:31	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/20/21 07:30	12/20/21 19:31	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/20/21 07:30	12/20/21 19:31	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/20/21 07:30	12/20/21 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*12/20/21 07:30*	*12/20/21 19:31*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*12/20/21 07:30*	*12/20/21 19:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**75.4**		50.0		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 21:53	1
Diesel Range Organics (Over C10-C28)	**75.4**		50.0		mg/Kg		12/21/21 10:22	12/21/21 21:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*50*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 21:53*	*1*
o-Terphenyl	*55*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 21:53*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Client Sample ID: SW49
Date Collected: 12/14/21 12:50
Date Received: 12/15/21 14:33
Sample Depth: 0 - 3

Lab Sample ID: 890-1721-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.7		4.95		mg/Kg			12/20/21 10:55	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1721-1	FS60A	129	110
890-1721-2	FS61A	122	105
890-1721-3	FS62A	124	108
890-1721-4	SW49	127	106
890-1730-A-1-B MS	Matrix Spike	105	97
890-1730-A-1-C MSD	Matrix Spike Duplicate	110	98
LCS 880-15094/1-A	Lab Control Sample	124	128
LCSD 880-15094/2-A	Lab Control Sample Dup	123	110
MB 880-15094/5-A	Method Blank	112	110

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1721-1	FS60A	52 S1-	58 S1-
890-1721-2	FS61A	51 S1-	56 S1-
890-1721-3	FS62A	55 S1-	60 S1-
890-1721-4	SW49	50 S1-	55 S1-
890-1735-A-1-E MS	Matrix Spike	50 S1-	49 S1-
890-1735-A-1-F MSD	Matrix Spike Duplicate	50 S1-	49 S1-
LCS 880-15243/2-A	Lab Control Sample	60 S1-	63 S1-
LCSD 880-15243/3-A	Lab Control Sample Dup	63 S1-	68 S1-
MB 880-15243/1-A	Method Blank	68 S1-	78

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15094/5-A
Matrix: Solid
Analysis Batch: 15146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15094

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 17:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 17:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 17:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/20/21 07:30	12/20/21 17:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/20/21 07:30	12/20/21 17:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/20/21 07:30	12/20/21 17:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*12/20/21 07:30*	*12/20/21 17:28*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*12/20/21 07:30*	*12/20/21 17:28*	*1*

Lab Sample ID: LCS 880-15094/1-A
Matrix: Solid
Analysis Batch: 15146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15094

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08540		mg/Kg		85	70 - 130		
Toluene			0.100	0.08735		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08718		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene			0.200	0.1837		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09205		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*128*		*70 - 130*

Lab Sample ID: LCSD 880-15094/2-A
Matrix: Solid
Analysis Batch: 15146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15094

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07023		mg/Kg		70	70 - 130	19	35
Toluene			0.100	0.07638		mg/Kg		76	70 - 130	13	35
Ethylbenzene			0.100	0.08233		mg/Kg		82	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1747		mg/Kg		87	70 - 130	5	35
o-Xylene			0.100	0.08879		mg/Kg		89	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-1730-A-1-B MS
Matrix: Solid
Analysis Batch: 15146

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U F1	0.0992	0.05239	F1	mg/Kg		53	70 - 130		
Toluene	<0.00198	U F1	0.0992	0.05641	F1	mg/Kg		57	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

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

Lab Sample ID: 890-1730-A-1-B MS
Matrix: Solid
Analysis Batch: 15146

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U F1	0.0992	0.06300	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1	0.198	0.1304	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00198	U F1	0.0992	0.06802	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1730-A-1-C MSD
Matrix: Solid
Analysis Batch: 15146

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 15094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0996	0.05912	F1	mg/Kg		59	70 - 130	12	35
Toluene	<0.00198	U F1	0.0996	0.06670	F1	mg/Kg		67	70 - 130	17	35
Ethylbenzene	<0.00198	U F1	0.0996	0.07042		mg/Kg		71	70 - 130	11	35
m-Xylene & p-Xylene	<0.00397	U F1	0.199	0.1474		mg/Kg		74	70 - 130	12	35
o-Xylene	<0.00198	U F1	0.0996	0.07434		mg/Kg		75	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-15243/1-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15243

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 14:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 14:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 10:22	12/21/21 14:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*12/21/21 10:22*	*12/21/21 14:35*	*1*
o-Terphenyl	*78*		*70 - 130*	*12/21/21 10:22*	*12/21/21 14:35*	*1*

Lab Sample ID: LCS 880-15243/2-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	939.5		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.7		mg/Kg		79	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

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

Lab Sample ID: LCS 880-15243/2-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15243

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	60	S1-	70 - 130
o-Terphenyl	63	S1-	70 - 130

Lab Sample ID: LCSD 880-15243/3-A
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15243

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	978.1		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	794.7		mg/Kg		79	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	63	S1-	70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 890-1735-A-1-E MS
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1091		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)	80.3	F1	996	736.2	F1	mg/Kg		66	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	50	S1-	70 - 130
o-Terphenyl	49	S1-	70 - 130

Lab Sample ID: 890-1735-A-1-F MSD
Matrix: Solid
Analysis Batch: 15246

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 15243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	1086		mg/Kg		109	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	80.3	F1	995	729.5	F1	mg/Kg		65	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	50	S1-	70 - 130
o-Terphenyl	49	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15089/1-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/20/21 10:02	1

Lab Sample ID: LCS 880-15089/2-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.7		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-15089/3-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	271.6		mg/Kg		109	90 - 110	2	20

Lab Sample ID: 890-1721-1 MS
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: FS60A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	27.3	F1	248	313.8	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 890-1721-1 MSD
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: FS60A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	27.3	F1	248	317.0	F1	mg/Kg		117	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

GC VOA

Prep Batch: 15094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Total/NA	Solid	5035	
890-1721-2	FS61A	Total/NA	Solid	5035	
890-1721-3	FS62A	Total/NA	Solid	5035	
890-1721-4	SW49	Total/NA	Solid	5035	
MB 880-15094/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15094/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15094/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1730-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1730-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Total/NA	Solid	8021B	15094
890-1721-2	FS61A	Total/NA	Solid	8021B	15094
890-1721-3	FS62A	Total/NA	Solid	8021B	15094
890-1721-4	SW49	Total/NA	Solid	8021B	15094
MB 880-15094/5-A	Method Blank	Total/NA	Solid	8021B	15094
LCS 880-15094/1-A	Lab Control Sample	Total/NA	Solid	8021B	15094
LCSD 880-15094/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15094
890-1730-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	15094
890-1730-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15094

Analysis Batch: 15276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Total/NA	Solid	Total BTEX	
890-1721-2	FS61A	Total/NA	Solid	Total BTEX	
890-1721-3	FS62A	Total/NA	Solid	Total BTEX	
890-1721-4	SW49	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Total/NA	Solid	8015NM Prep	
890-1721-2	FS61A	Total/NA	Solid	8015NM Prep	
890-1721-3	FS62A	Total/NA	Solid	8015NM Prep	
890-1721-4	SW49	Total/NA	Solid	8015NM Prep	
MB 880-15243/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15243/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1735-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1735-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Total/NA	Solid	8015B NM	15243
890-1721-2	FS61A	Total/NA	Solid	8015B NM	15243
890-1721-3	FS62A	Total/NA	Solid	8015B NM	15243
890-1721-4	SW49	Total/NA	Solid	8015B NM	15243
MB 880-15243/1-A	Method Blank	Total/NA	Solid	8015B NM	15243
LCS 880-15243/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15243

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

GC Semi VOA (Continued)

Analysis Batch: 15246 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-15243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15243
890-1735-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	15243
890-1735-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15243

Analysis Batch: 15468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Total/NA	Solid	8015 NM	
890-1721-2	FS61A	Total/NA	Solid	8015 NM	
890-1721-3	FS62A	Total/NA	Solid	8015 NM	
890-1721-4	SW49	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Soluble	Solid	DI Leach	
890-1721-2	FS61A	Soluble	Solid	DI Leach	
890-1721-3	FS62A	Soluble	Solid	DI Leach	
890-1721-4	SW49	Soluble	Solid	DI Leach	
MB 880-15089/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15089/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15089/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1721-1 MS	FS60A	Soluble	Solid	DI Leach	
890-1721-1 MSD	FS60A	Soluble	Solid	DI Leach	

Analysis Batch: 15128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1721-1	FS60A	Soluble	Solid	300.0	15089
890-1721-2	FS61A	Soluble	Solid	300.0	15089
890-1721-3	FS62A	Soluble	Solid	300.0	15089
890-1721-4	SW49	Soluble	Solid	300.0	15089
MB 880-15089/1-A	Method Blank	Soluble	Solid	300.0	15089
LCS 880-15089/2-A	Lab Control Sample	Soluble	Solid	300.0	15089
LCSD 880-15089/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15089
890-1721-1 MS	FS60A	Soluble	Solid	300.0	15089
890-1721-1 MSD	FS60A	Soluble	Solid	300.0	15089

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Client Sample ID: FS60A
Date Collected: 12/14/21 12:25
Date Received: 12/15/21 14:33

Lab Sample ID: 890-1721-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15094	12/20/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15146	12/20/21 18:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 20:46	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 10:22	CH	XEN MID

Client Sample ID: FS61A
Date Collected: 12/14/21 12:35
Date Received: 12/15/21 14:33

Lab Sample ID: 890-1721-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15094	12/20/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15146	12/20/21 18:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 21:08	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 10:42	CH	XEN MID

Client Sample ID: FS62A
Date Collected: 12/14/21 12:45
Date Received: 12/15/21 14:33

Lab Sample ID: 890-1721-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15094	12/20/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15146	12/20/21 19:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 21:30	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 10:49	CH	XEN MID

Client Sample ID: SW49
Date Collected: 12/14/21 12:50
Date Received: 12/15/21 14:33

Lab Sample ID: 890-1721-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15094	12/20/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15146	12/20/21 19:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15276	12/21/21 14:36	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Client Sample ID: SW49
Date Collected: 12/14/21 12:50
Date Received: 12/15/21 14:33

Lab Sample ID: 890-1721-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15243	12/21/21 10:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15246	12/21/21 21:53	AJ	XEN MID
Soluble	Leach	DI Leach			15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1	15128	12/20/21 10:55	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1721-1
SDG: TE012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1721-1	FS60A	Solid	12/14/21 12:25	12/15/21 14:33	3
890-1721-2	FS61A	Solid	12/14/21 12:35	12/15/21 14:33	3
890-1721-3	FS62A	Solid	12/14/21 12:45	12/15/21 14:33	3
890-1721-4	SW49	Solid	12/14/21 12:50	12/15/21 14:33	0 - 3

Page 352 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	~~Kyle Littrell~~ ADRIAN BAKER
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes / No	Wet Ice:	Yes / No	
Temperature (°C):	3.6 / 3.0	Thermometer ID		
Received Intact:	Yes / No	T-1m-002		
Cooler Custody Seals:	Yes / No / N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes / No / N/A	Total Containers:		

ANALYSIS REQUEST

890-1721 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
FS60	S	12/14/2021	1225	3'	1	x	x	x	COMPOSITE
FS61	S	12/14/2021	1235	3'	1	x	x	x	COMPOSITE
FS63	S	12/14/2021	1245	3'	1	x	x	x	COMPOSITE
SW49	S	12/14/2021	1250	0-3'	1	x	x	x	COMPOSITE

AC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/15/21 2:33	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Page 21 of 23
12/30/2021 (Rev. 1)
Received by OCD: 3/4/2022 1:28:26 PM
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1721-1
SDG Number: TE012929159

Login Number: 1721
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1721-1
SDG Number: TE012929159

Login Number: 1721
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 12/20/21 08:18 AM

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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1736-1
Laboratory Sample Delivery Group: TEO012929159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
12/30/2021 11:47:49 AM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1736-1
SDG: TEO012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 23

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1736-1
Project/Site: Ross Ranch 6 SDG: TEO012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Job ID: 890-1736-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1736-1

REVISION

The report being provided is a revision of the original report sent on 12/22/2021. The report (revision 1) is being revised due to Per client email, requesting revised sample IDs.

Report revision history

Receipt
The samples were received on 12/20/2021 12:56 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
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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15256 and analytical batch 880-15270 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. SW62 (890-1736-2), FS29A (890-1736-3), SW63 (890-1736-4), SW64 (890-1736-5), (890-1736-A-2-D MS) and (890-1736-A-2-E MSD)

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Client Sample ID: SW61

Date Collected: 12/17/21 10:35
Date Received: 12/20/21 12:56
Sample Depth: 0 - 3

Lab Sample ID: 890-1736-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:13	12/21/21 14:03	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:13	12/21/21 14:03	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:13	12/21/21 14:03	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		12/21/21 07:13	12/21/21 14:03	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/21/21 07:13	12/21/21 14:03	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		12/21/21 07:13	12/21/21 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*12/21/21 07:13*	*12/21/21 14:03*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*12/21/21 07:13*	*12/21/21 14:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 14:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 14:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*12/21/21 07:55*	*12/21/21 14:23*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/21/21 07:55*	*12/21/21 14:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**239**		4.95		mg/Kg			12/21/21 20:47	1

Client Sample ID: SW62

Date Collected: 12/17/21 10:50
Date Received: 12/20/21 12:56
Sample Depth: 0 - 3

Lab Sample ID: 890-1736-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 14:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 14:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 14:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/21/21 07:13	12/21/21 14:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 14:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/21/21 07:13	12/21/21 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*12/21/21 07:13*	*12/21/21 14:23*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Client Sample ID: SW62

Date Collected: 12/17/21 10:50
Date Received: 12/20/21 12:56
Sample Depth: 0 - 3

Lab Sample ID: 890-1736-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*12/21/21 07:13*	*12/21/21 14:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/21/21 07:55	12/21/21 14:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/21/21 07:55	12/21/21 14:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/21/21 07:55	12/21/21 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*12/21/21 07:55*	*12/21/21 14:43*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/21/21 07:55*	*12/21/21 14:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**330**	**F1**	4.98	mg/Kg			12/21/21 20:59	1

Client Sample ID: FS29A

Date Collected: 12/17/21 11:20
Date Received: 12/20/21 12:56
Sample Depth: 4

Lab Sample ID: 890-1736-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/21/21 07:13	12/21/21 14:44	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/21/21 07:13	12/21/21 14:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/21/21 07:13	12/21/21 14:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/21/21 07:13	12/21/21 14:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/21/21 07:13	12/21/21 14:44	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/21/21 07:13	12/21/21 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*12/21/21 07:13*	*12/21/21 14:44*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*12/21/21 07:13*	*12/21/21 14:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/21/21 15:44	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Client Sample ID: FS29A
Date Collected: 12/17/21 11:20
Date Received: 12/20/21 12:56
Sample Depth: 4

Lab Sample ID: 890-1736-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 15:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 15:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*12/21/21 07:55*	*12/21/21 15:24*	*1*
o-Terphenyl	*106*		*70 - 130*	*12/21/21 07:55*	*12/21/21 15:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		5.02		mg/Kg			12/21/21 21:35	1

Client Sample ID: SW63
Date Collected: 12/17/21 12:45
Date Received: 12/20/21 12:56
Sample Depth: 0 - 3

Lab Sample ID: 890-1736-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/21/21 07:13	12/21/21 15:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/21/21 07:13	12/21/21 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/21/21 07:13*	*12/21/21 15:04*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*12/21/21 07:13*	*12/21/21 15:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 15:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 15:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*12/21/21 07:55*	*12/21/21 15:45*	*1*
o-Terphenyl	*122*		*70 - 130*	*12/21/21 07:55*	*12/21/21 15:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Client Sample ID: SW63
Date Collected: 12/17/21 12:45
Date Received: 12/20/21 12:56
Sample Depth: 0 - 3

Lab Sample ID: 890-1736-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	175		4.98		mg/Kg			12/21/21 21:46	1

Client Sample ID: SW64
Date Collected: 12/17/21 13:15
Date Received: 12/20/21 12:56
Sample Depth: 0 - 3

Lab Sample ID: 890-1736-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/21/21 07:13	12/21/21 15:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/21/21 07:13	12/21/21 15:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/21/21 07:13	12/21/21 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*12/21/21 07:13*	*12/21/21 15:25*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*12/21/21 07:13*	*12/21/21 15:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/22/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 16:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 16:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/21/21 07:55	12/21/21 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*12/21/21 07:55*	*12/21/21 16:05*	*1*
o-Terphenyl	*102*		*70 - 130*	*12/21/21 07:55*	*12/21/21 16:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.9		5.05		mg/Kg			12/21/21 22:22	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9492-A-18-F MS	Matrix Spike	130	101
880-9492-A-18-G MSD	Matrix Spike Duplicate	122	110
890-1736-1	SW61	130	113
890-1736-2	SW62	131 S1+	105
890-1736-3	FS29A	125	106
890-1736-4	SW63	124	99
890-1736-5	SW64	120	97
LCS 880-15225/1-A	Lab Control Sample	112	95
LCSD 880-15225/2-A	Lab Control Sample Dup	112	99
MB 880-15225/5-A	Method Blank	125	105

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9504-A-1-K MS	Matrix Spike	84	83
880-9504-A-1-L MSD	Matrix Spike Duplicate	86	85
890-1736-1	SW61	110	101
890-1736-2	SW62	109	101
890-1736-3	FS29A	116	106
890-1736-4	SW63	129	122
890-1736-5	SW64	110	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-15229/2-A	Lab Control Sample	104	107
LCSD 880-15229/3-A	Lab Control Sample Dup	113	118
MB 880-15229/1-A	Method Blank	135 S1+	131 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15225/5-A
Matrix: Solid
Analysis Batch: 15227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15225

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/21/21 07:13	12/21/21 10:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/21/21 07:13	12/21/21 10:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/21/21 07:13	12/21/21 10:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*12/21/21 07:13*	*12/21/21 10:35*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*12/21/21 07:13*	*12/21/21 10:35*	*1*

Lab Sample ID: LCS 880-15225/1-A
Matrix: Solid
Analysis Batch: 15227

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15225

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09209		mg/Kg		92	70 - 130		
Toluene			0.100	0.1026		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1042		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.2012		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.09364		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-15225/2-A
Matrix: Solid
Analysis Batch: 15227

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09779		mg/Kg		98	70 - 130	6	35
Toluene			0.100	0.09817		mg/Kg		98	70 - 130	4	35
Ethylbenzene			0.100	0.1012		mg/Kg		101	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1991		mg/Kg		100	70 - 130	1	35
o-Xylene			0.100	0.09513		mg/Kg		95	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-9492-A-18-F MS
Matrix: Solid
Analysis Batch: 15227

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.100	0.09190		mg/Kg		90	70 - 130		
Toluene	<0.00199	U	0.100	0.09449		mg/Kg		93	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

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

Lab Sample ID: 880-9492-A-18-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15227 — **Prep Batch: 15225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.100	0.09450		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1916		mg/Kg		95	70 - 130
o-Xylene	<0.00199	U	0.100	0.09101		mg/Kg		90	70 - 130

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

Lab Sample ID: 880-9492-A-18-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15227 — **Prep Batch: 15225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09929		mg/Kg		97	70 - 130	8	35
Toluene	<0.00199	U	0.100	0.09725		mg/Kg		96	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.09366		mg/Kg		92	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1886		mg/Kg		94	70 - 130	2	35
o-Xylene	<0.00199	U	0.100	0.09444		mg/Kg		94	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-15229/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15231 — **Prep Batch: 15229**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 09:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 09:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/21/21 07:55	12/21/21 09:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*12/21/21 07:55*	*12/21/21 09:16*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*12/21/21 07:55*	*12/21/21 09:16*	*1*

Lab Sample ID: LCS 880-15229/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15231 — **Prep Batch: 15229**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	884.2		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)			1000	919.9		mg/Kg		92	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

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

Lab Sample ID: LCS 880-15229/2-A
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15229

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-15229/3-A
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15229

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	922.3		mg/Kg		92	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	943.9		mg/Kg		94	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: 880-9504-A-1-K MS
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1046		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	812.5		mg/Kg		82	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 880-9504-A-1-L MSD
Matrix: Solid
Analysis Batch: 15231

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 15229

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	1069		mg/Kg		104	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	995	836.9		mg/Kg		84	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15256/1-A
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/21/21 17:37	1

Lab Sample ID: LCS 880-15256/2-A
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.6		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-15256/3-A
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	258.5		mg/Kg		103	90 - 110	5	20

Lab Sample ID: 890-1736-2 MS
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: SW62
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	330	F1	249	268.1	F1	mg/Kg		-25	90 - 110		

Lab Sample ID: 890-1736-2 MSD
Matrix: Solid
Analysis Batch: 15270

Client Sample ID: SW62
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	330	F1	249	267.6	F1	mg/Kg		-25	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

GC VOA

Prep Batch: 15225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Total/NA	Solid	5035	
890-1736-2	SW62	Total/NA	Solid	5035	
890-1736-3	FS29A	Total/NA	Solid	5035	
890-1736-4	SW63	Total/NA	Solid	5035	
890-1736-5	SW64	Total/NA	Solid	5035	
MB 880-15225/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15225/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15225/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9492-A-18-F MS	Matrix Spike	Total/NA	Solid	5035	
880-9492-A-18-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Total/NA	Solid	8021B	15225
890-1736-2	SW62	Total/NA	Solid	8021B	15225
890-1736-3	FS29A	Total/NA	Solid	8021B	15225
890-1736-4	SW63	Total/NA	Solid	8021B	15225
890-1736-5	SW64	Total/NA	Solid	8021B	15225
MB 880-15225/5-A	Method Blank	Total/NA	Solid	8021B	15225
LCS 880-15225/1-A	Lab Control Sample	Total/NA	Solid	8021B	15225
LCSD 880-15225/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15225
880-9492-A-18-F MS	Matrix Spike	Total/NA	Solid	8021B	15225
880-9492-A-18-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15225

Analysis Batch: 15380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Total/NA	Solid	Total BTEX	
890-1736-2	SW62	Total/NA	Solid	Total BTEX	
890-1736-3	FS29A	Total/NA	Solid	Total BTEX	
890-1736-4	SW63	Total/NA	Solid	Total BTEX	
890-1736-5	SW64	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Total/NA	Solid	8015NM Prep	
890-1736-2	SW62	Total/NA	Solid	8015NM Prep	
890-1736-3	FS29A	Total/NA	Solid	8015NM Prep	
890-1736-4	SW63	Total/NA	Solid	8015NM Prep	
890-1736-5	SW64	Total/NA	Solid	8015NM Prep	
MB 880-15229/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15229/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15229/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9504-A-1-K MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-9504-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Total/NA	Solid	8015B NM	15229
890-1736-2	SW62	Total/NA	Solid	8015B NM	15229

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

GC Semi VOA (Continued)

Analysis Batch: 15231 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-3	FS29A	Total/NA	Solid	8015B NM	15229
890-1736-4	SW63	Total/NA	Solid	8015B NM	15229
890-1736-5	SW64	Total/NA	Solid	8015B NM	15229
MB 880-15229/1-A	Method Blank	Total/NA	Solid	8015B NM	15229
LCS 880-15229/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15229
LCSD 880-15229/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15229
880-9504-A-1-K MS	Matrix Spike	Total/NA	Solid	8015B NM	15229
880-9504-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15229

Analysis Batch: 15281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Total/NA	Solid	8015 NM	
890-1736-2	SW62	Total/NA	Solid	8015 NM	
890-1736-3	FS29A	Total/NA	Solid	8015 NM	
890-1736-4	SW63	Total/NA	Solid	8015 NM	
890-1736-5	SW64	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Soluble	Solid	DI Leach	
890-1736-2	SW62	Soluble	Solid	DI Leach	
890-1736-3	FS29A	Soluble	Solid	DI Leach	
890-1736-4	SW63	Soluble	Solid	DI Leach	
890-1736-5	SW64	Soluble	Solid	DI Leach	
MB 880-15256/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15256/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15256/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1736-2 MS	SW62	Soluble	Solid	DI Leach	
890-1736-2 MSD	SW62	Soluble	Solid	DI Leach	

Analysis Batch: 15270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1736-1	SW61	Soluble	Solid	300.0	15256
890-1736-2	SW62	Soluble	Solid	300.0	15256
890-1736-3	FS29A	Soluble	Solid	300.0	15256
890-1736-4	SW63	Soluble	Solid	300.0	15256
890-1736-5	SW64	Soluble	Solid	300.0	15256
MB 880-15256/1-A	Method Blank	Soluble	Solid	300.0	15256
LCS 880-15256/2-A	Lab Control Sample	Soluble	Solid	300.0	15256
LCSD 880-15256/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15256
890-1736-2 MS	SW62	Soluble	Solid	300.0	15256
890-1736-2 MSD	SW62	Soluble	Solid	300.0	15256

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Client Sample ID: SW61
Date Collected: 12/17/21 10:35
Date Received: 12/20/21 12:56

Lab Sample ID: 890-1736-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15225	12/21/21 07:13	KL	XEN MID
Total/NA	Analysis	8021B		1	15227	12/21/21 14:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 14:23	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 20:47	SC	XEN MID

Client Sample ID: SW62
Date Collected: 12/17/21 10:50
Date Received: 12/20/21 12:56

Lab Sample ID: 890-1736-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15225	12/21/21 07:13	KL	XEN MID
Total/NA	Analysis	8021B		1	15227	12/21/21 14:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 14:43	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 20:59	SC	XEN MID

Client Sample ID: FS29A
Date Collected: 12/17/21 11:20
Date Received: 12/20/21 12:56

Lab Sample ID: 890-1736-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15225	12/21/21 07:13	KL	XEN MID
Total/NA	Analysis	8021B		1	15227	12/21/21 14:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 15:24	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 21:35	SC	XEN MID

Client Sample ID: SW63
Date Collected: 12/17/21 12:45
Date Received: 12/20/21 12:56

Lab Sample ID: 890-1736-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15225	12/21/21 07:13	KL	XEN MID
Total/NA	Analysis	8021B		1	15227	12/21/21 15:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Client Sample ID: SW63
Date Collected: 12/17/21 12:45
Date Received: 12/20/21 12:56

Lab Sample ID: 890-1736-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 15:45	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 21:46	SC	XEN MID

Client Sample ID: SW64
Date Collected: 12/17/21 13:15
Date Received: 12/20/21 12:56

Lab Sample ID: 890-1736-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15225	12/21/21 07:13	KL	XEN MID
Total/NA	Analysis	8021B		1	15227	12/21/21 15:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15380	12/22/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15229	12/21/21 07:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15231	12/21/21 16:05	AJ	XEN MID
Soluble	Leach	DI Leach			15256	12/21/21 13:50	SC	XEN MID
Soluble	Analysis	300.0		1	15270	12/21/21 22:22	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1736-1
SDG: TEO012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1736-1	SW61	Solid	12/17/21 10:35	12/20/21 12:56	0 - 3
890-1736-2	SW62	Solid	12/17/21 10:50	12/20/21 12:56	0 - 3
890-1736-3	FS29A	Solid	12/17/21 11:20	12/20/21 12:56	4
890-1736-4	SW63	Solid	12/17/21 12:45	12/20/21 12:56	0 - 3
890-1736-5	SW64	Solid	12/17/21 13:15	12/20/21 12:56	0 - 3

Page 375 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine ☐	
P.O. Number:	CC: 1138871001	Rush: 24hr	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.2 / 3.0	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW61	S	12/17/2021	1035	0-3'	1	x	x	x
SW62	S	12/17/2021	1050	0-3'	1	x	x	x
FS29	S	12/17/2021	1120	4'	1	x	x	x
SW63	S	12/17/2021	1245	0-3'	1	x	x	x
SW64	S	12/17/2021	1315	0-3'	1	x	x	x

890-1736 Chain of Custody

AC

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Sample Comments

COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/20/21 12:56	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Page 21 of 24

12/30/2021 (Rev. 1)

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 376 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-554 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1736-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 12/21/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E - NaHSO4, F MeOH, G - Amchlor, H Ascorbic Acid, I - Ice, J DI Water, K - EDTA, L EDA, M - Hexane, N None, O - AsNaO2, P Na2O4S, Q - Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U - Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW61 (890-1736-1)	12/17/21	10 35 Mountain		Solid			X	X	X	X	X	1	
SW62 (890-1736-2)	12/17/21	10 50 Mountain		Solid			X	X	X	X	X	1	
FS29 (890-1736-3)	12/17/21	11 20 Mountain		Solid			X	X	X	X	X	1	
SW63 (890-1736-4)	12/17/21	12 45 Mountain		Solid			X	X	X	X	X	1	
SW64 (890-1736-5)	12/17/21	13 15 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time: 12/20/21	Company	Received by:	Date/Time: 12/21/21 12:45	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.8/4.9 .10 IR8

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1736-1
SDG Number: TEO012929159

Login Number: 1736
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1736-1
SDG Number: TEO012929159

Login Number: 1736
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland
List Creation: 12/21/21 12:50 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1827-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
1/14/2022 4:42:15 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch

Laboratory Job ID: 890-1827-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 13
Lab Chronicle 15
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1827-1
Project/Site: Ross Ranch SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Job ID: 890-1827-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1827-1

Receipt
The samples were received on 1/13/2022 9:25 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 1.8°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-10225-A-1-B), (880-10225-A-1-C MS) and (880-10225-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-16846 and analytical batch 880-16873 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Client Sample ID: SW41

Lab Sample ID: 890-1827-1
Matrix: Solid
Date Collected: 01/12/22 10:00
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 11:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 11:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 11:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/13/22 10:00	01/14/22 11:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 11:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/13/22 10:00	01/14/22 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/13/22 10:00*	*01/14/22 11:45*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/13/22 10:00*	*01/14/22 11:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/13/22 13:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/14/22 15:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/14/22 09:31	01/14/22 14:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/14/22 09:31	01/14/22 14:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/14/22 09:31	01/14/22 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*01/14/22 09:31*	*01/14/22 14:01*	*1*
o-Terphenyl	*79*		*70 - 130*	*01/14/22 09:31*	*01/14/22 14:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.8**	**F1**	5.00		mg/Kg			01/14/22 14:53	1

Client Sample ID: SW65

Lab Sample ID: 890-1827-2
Matrix: Solid
Date Collected: 01/12/22 10:40
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/13/22 10:00	01/14/22 12:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/13/22 10:00	01/14/22 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/13/22 10:00*	*01/14/22 12:05*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Client Sample ID: SW65

Lab Sample ID: 890-1827-2
Matrix: Solid
Date Collected: 01/12/22 10:40
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*01/13/22 10:00*	*01/14/22 12:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/13/22 13:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/14/22 15:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 14:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 14:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*71*		*70 - 130*	*01/14/22 09:31*	*01/14/22 14:22*	*1*
o-Terphenyl	*79*		*70 - 130*	*01/14/22 09:31*	*01/14/22 14:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.6**		4.99		mg/Kg			01/14/22 15:11	1

Client Sample ID: SW42

Lab Sample ID: 890-1827-3
Matrix: Solid
Date Collected: 01/12/22 10:55
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/13/22 10:00	01/14/22 12:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/13/22 10:00	01/14/22 12:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/13/22 10:00	01/14/22 12:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/13/22 10:00*	*01/14/22 12:26*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/13/22 10:00*	*01/14/22 12:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/13/22 13:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/14/22 15:11	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1827-1
Project/Site: Ross Ranch SDG: te012929159

Client Sample ID: SW42 Lab Sample ID: 890-1827-3

Date Collected: 01/12/22 10:55 **Matrix: Solid**
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/14/22 09:31	01/14/22 14:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/14/22 09:31	01/14/22 14:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/14/22 09:31	01/14/22 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*01/14/22 09:31*	*01/14/22 14:43*	*1*
o-Terphenyl	*83*		*70 - 130*	*01/14/22 09:31*	*01/14/22 14:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66.3**		4.95		mg/Kg			01/14/22 15:17	1

Client Sample ID: SW66 Lab Sample ID: 890-1827-4

Date Collected: 01/12/22 13:40 **Matrix: Solid**
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 12:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 12:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/13/22 10:00	01/14/22 12:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 12:46	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/13/22 10:00	01/14/22 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*01/13/22 10:00*	*01/14/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*01/13/22 10:00*	*01/14/22 12:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/13/22 13:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/14/22 15:11	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 15:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 15:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*01/14/22 09:31*	*01/14/22 15:04*	*1*
o-Terphenyl	*79*		*70 - 130*	*01/14/22 09:31*	*01/14/22 15:04*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Client Sample ID: SW66
Date Collected: 01/12/22 13:40
Date Received: 01/13/22 09:25
Sample Depth: 0 - 3

Lab Sample ID: 890-1827-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.0		5.00		mg/Kg			01/14/22 15:24	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1827-1	SW41	108	97
890-1827-2	SW65	104	75
890-1827-3	SW42	112	102
890-1827-4	SW66	127	118
MB 880-16734/5-A	Method Blank	126	116

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-10225-A-1-C MS	Matrix Spike	59 S1-	53 S1-
880-10225-A-1-D MSD	Matrix Spike Duplicate	61 S1-	59 S1-
890-1827-1	SW41	70	79
890-1827-2	SW65	71	79
890-1827-3	SW42	72	83
890-1827-4	SW66	72	79
LCS 880-16836/2-A	Lab Control Sample	97	98
LCSD 880-16836/3-A	Lab Control Sample Dup	99	101
MB 880-16836/1-A	Method Blank	79	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-16734/5-A
Matrix: Solid
Analysis Batch: 16738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16734

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 03:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 03:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 03:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/13/22 10:00	01/14/22 03:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/13/22 10:00	01/14/22 03:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/13/22 10:00	01/14/22 03:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*01/13/22 10:00*	*01/14/22 03:25*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/13/22 10:00*	*01/14/22 03:25*	*1*

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

Lab Sample ID: MB 880-16836/1-A
Matrix: Solid
Analysis Batch: 16815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16836

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 11:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 11:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/14/22 09:31	01/14/22 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/14/22 09:31*	*01/14/22 11:57*	*1*
o-Terphenyl	*87*		*70 - 130*	*01/14/22 09:31*	*01/14/22 11:57*	*1*

Lab Sample ID: LCS 880-16836/2-A
Matrix: Solid
Analysis Batch: 16815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16836

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	985.0		mg/Kg		99	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	999.8		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: LCSD 880-16836/3-A
Matrix: Solid
Analysis Batch: 16815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16836

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1030		mg/Kg		103	70 - 130	4	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-16836/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 16815 — **Prep Batch: 16836**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1033		mg/Kg		103	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: 880-10225-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 16815 — **Prep Batch: 16836**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	937.6		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	808.3		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*59*	*S1-*	*70 - 130*
o-Terphenyl	*53*	*S1-*	*70 - 130*

Lab Sample ID: 880-10225-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 16815 — **Prep Batch: 16836**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	978.0		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	890.4		mg/Kg		89	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*61*	*S1-*	*70 - 130*
o-Terphenyl	*59*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-16846/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16873

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/14/22 14:34	1

Lab Sample ID: LCS 880-16846/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16873

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	254.2		mg/Kg		102	90 - 110

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-16846/3-A
Matrix: Solid
Analysis Batch: 16873

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	260.3		mg/Kg		104	90 - 110	2	20

Lab Sample ID: 890-1827-1 MS
Matrix: Solid
Analysis Batch: 16873

Client Sample ID: SW41
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	14.8	F1	250	297.0	F1	mg/Kg		113	90 - 110

Lab Sample ID: 890-1827-1 MSD
Matrix: Solid
Analysis Batch: 16873

Client Sample ID: SW41
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	14.8	F1	250	293.6	F1	mg/Kg		111	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

GC VOA

Prep Batch: 16734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Total/NA	Solid	5035	
890-1827-2	SW65	Total/NA	Solid	5035	
890-1827-3	SW42	Total/NA	Solid	5035	
890-1827-4	SW66	Total/NA	Solid	5035	
MB 880-16734/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 16738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Total/NA	Solid	8021B	16734
890-1827-2	SW65	Total/NA	Solid	8021B	16734
890-1827-3	SW42	Total/NA	Solid	8021B	16734
890-1827-4	SW66	Total/NA	Solid	8021B	16734
MB 880-16734/5-A	Method Blank	Total/NA	Solid	8021B	16734

Analysis Batch: 16785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Total/NA	Solid	Total BTEX	
890-1827-2	SW65	Total/NA	Solid	Total BTEX	
890-1827-3	SW42	Total/NA	Solid	Total BTEX	
890-1827-4	SW66	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 16815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Total/NA	Solid	8015B NM	16836
890-1827-2	SW65	Total/NA	Solid	8015B NM	16836
890-1827-3	SW42	Total/NA	Solid	8015B NM	16836
890-1827-4	SW66	Total/NA	Solid	8015B NM	16836
MB 880-16836/1-A	Method Blank	Total/NA	Solid	8015B NM	16836
LCS 880-16836/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	16836
LCSD 880-16836/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	16836
880-10225-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	16836
880-10225-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	16836

Prep Batch: 16836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Total/NA	Solid	8015NM Prep	
890-1827-2	SW65	Total/NA	Solid	8015NM Prep	
890-1827-3	SW42	Total/NA	Solid	8015NM Prep	
890-1827-4	SW66	Total/NA	Solid	8015NM Prep	
MB 880-16836/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-16836/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-16836/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10225-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10225-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 16838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Total/NA	Solid	8015 NM	
890-1827-2	SW65	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

GC Semi VOA (Continued)

Analysis Batch: 16838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-3	SW42	Total/NA	Solid	8015 NM	
890-1827-4	SW66	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 16846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Soluble	Solid	DI Leach	
890-1827-2	SW65	Soluble	Solid	DI Leach	
890-1827-3	SW42	Soluble	Solid	DI Leach	
890-1827-4	SW66	Soluble	Solid	DI Leach	
MB 880-16846/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-16846/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-16846/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1827-1 MS	SW41	Soluble	Solid	DI Leach	
890-1827-1 MSD	SW41	Soluble	Solid	DI Leach	

Analysis Batch: 16873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1827-1	SW41	Soluble	Solid	300.0	16846
890-1827-2	SW65	Soluble	Solid	300.0	16846
890-1827-3	SW42	Soluble	Solid	300.0	16846
890-1827-4	SW66	Soluble	Solid	300.0	16846
MB 880-16846/1-A	Method Blank	Soluble	Solid	300.0	16846
LCS 880-16846/2-A	Lab Control Sample	Soluble	Solid	300.0	16846
LCSD 880-16846/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	16846
890-1827-1 MS	SW41	Soluble	Solid	300.0	16846
890-1827-1 MSD	SW41	Soluble	Solid	300.0	16846

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Client Sample ID: SW41
Date Collected: 01/12/22 10:00
Date Received: 01/13/22 09:25

Lab Sample ID: 890-1827-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			16734	01/13/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	16738	01/14/22 11:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16785	01/13/22 13:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	16838	01/14/22 15:11	AJ	XEN MID
Total/NA	Prep	8015NM Prep			16836	01/14/22 09:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1	16815	01/14/22 14:01	AJ	XEN MID
Soluble	Leach	DI Leach			16846	01/14/22 10:37	CH	XEN MID
Soluble	Analysis	300.0		1	16873	01/14/22 14:53	CH	XEN MID

Client Sample ID: SW65
Date Collected: 01/12/22 10:40
Date Received: 01/13/22 09:25

Lab Sample ID: 890-1827-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			16734	01/13/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	16738	01/14/22 12:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16785	01/13/22 13:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	16838	01/14/22 15:11	AJ	XEN MID
Total/NA	Prep	8015NM Prep			16836	01/14/22 09:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1	16815	01/14/22 14:22	AJ	XEN MID
Soluble	Leach	DI Leach			16846	01/14/22 10:37	CH	XEN MID
Soluble	Analysis	300.0		1	16873	01/14/22 15:11	CH	XEN MID

Client Sample ID: SW42
Date Collected: 01/12/22 10:55
Date Received: 01/13/22 09:25

Lab Sample ID: 890-1827-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			16734	01/13/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	16738	01/14/22 12:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16785	01/13/22 13:48	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	16838	01/14/22 15:11	AJ	XEN MID
Total/NA	Prep	8015NM Prep			16836	01/14/22 09:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1	16815	01/14/22 14:43	AJ	XEN MID
Soluble	Leach	DI Leach			16846	01/14/22 10:37	CH	XEN MID
Soluble	Analysis	300.0		1	16873	01/14/22 15:17	CH	XEN MID

Client Sample ID: SW66
Date Collected: 01/12/22 13:40
Date Received: 01/13/22 09:25

Lab Sample ID: 890-1827-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			16734	01/13/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	16738	01/14/22 12:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16785	01/13/22 13:48	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Client Sample ID: SW66

Date Collected: 01/12/22 13:40
Date Received: 01/13/22 09:25

Lab Sample ID: 890-1827-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	16838	01/14/22 15:11	AJ	XEN MID
Total/NA	Prep	8015NM Prep			16836	01/14/22 09:31	DM	XEN MID
Total/NA	Analysis	8015B NM		1	16815	01/14/22 15:04	AJ	XEN MID
Soluble	Leach	DI Leach			16846	01/14/22 10:37	CH	XEN MID
Soluble	Analysis	300.0		1	16873	01/14/22 15:24	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1827-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1827-1	SW41	Solid	01/12/22 10:00	01/13/22 09:25	0 - 3
890-1827-2	SW65	Solid	01/12/22 10:40	01/13/22 09:25	0 - 3
890-1827-3	SW42	Solid	01/12/22 10:55	01/13/22 09:25	0 - 3
890-1827-4	SW66	Solid	01/12/22 13:40	01/13/22 09:25	0 - 3

Page 398 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

1/14/2022

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:		Alexis.Castro@wsp.com; tacoma.morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine ☐	
P.O. Number:	CC: 1138871001	Rush: 24hr	
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.0/1.8	Thermometer ID	TWM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

890-1827 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW41	S	01/12/2022	1000	0 - 3'	1	x	x	x	COMPOSITE
SW65	S	01/12/2022	1040	0 - 3'	1	x	x	x	COMPOSITE
SW42	S	01/12/2022	1055	0 - 3'	1	x	x	x	COMPOSITE
SW66	S	01/12/2022	1340	0 - 3'	1	x	x	x	COMPOSITE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			1-13-22 0925	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Page 20 of 22

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1827-1
SDG Number: te012929159

Login Number: 1827
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1827-1
SDG Number: te012929159

Login Number: 1827
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/14/22 10:54 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1875-1
Laboratory Sample Delivery Group: TE012920159
Client Project/Site: Ross Ranch 6
Revision: 1

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/4/2022 4:20:28 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1875-1
SDG: TE012920159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 18

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1875-1
Project/Site: Ross Ranch 6 SDG: TE012920159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Job ID: 890-1875-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1875-1

REVISION

The report being provided is a revision of the original report sent on 1/28/2022. The report (revision 1) is being revised due to Per client email requesring re run on TPH for sample FS50B.

Report revision history

Receipt
The sample was received on 1/26/2022 4:01 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-17976/3-A), (MB 880-17976/1-A) and (880-10654-A-41-E MS). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Client Sample ID: FS50B
Date Collected: 01/26/22 14:10
Date Received: 01/26/22 16:01
Sample Depth: 4

Lab Sample ID: 890-1875-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 14:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 14:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 14:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 14:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/28/22 12:00	01/28/22 14:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/28/22 12:00	01/28/22 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*	*01/28/22 12:00*	*01/28/22 14:07*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*01/28/22 12:00*	*01/28/22 14:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/28/22 14:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**73.0**		50.0		mg/Kg			01/27/22 16:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/28/22 08:29	02/04/22 13:32	1
Diesel Range Organics (Over C10-C28)	**73.0**		50.0		mg/Kg		01/28/22 08:29	02/04/22 13:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/28/22 08:29	02/04/22 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/28/22 08:29*	*02/04/22 13:32*	*1*
o-Terphenyl	*77*		*70 - 130*	*01/28/22 08:29*	*02/04/22 13:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		5.02		mg/Kg			01/28/22 13:28	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1872-A-3-C MS	Matrix Spike	100	88
890-1872-A-3-D MSD	Matrix Spike Duplicate	100	90
890-1875-1	FS50B	154 S1+	87
LCS 880-17922/1-A	Lab Control Sample	100	101
LCSD 880-17922/2-A	Lab Control Sample Dup	102	97
MB 880-17922/5-A	Method Blank	111	100

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-10654-A-41-E MS	Matrix Spike	68 S1-	63 S1-
880-10654-A-41-F MSD	Matrix Spike Duplicate	77	72
890-1875-1	FS50B	82	77
LCS 880-17976/2-A	Lab Control Sample	117	123
LCSD 880-17976/3-A	Lab Control Sample Dup	133 S1+	140 S1+
MB 880-17976/1-A	Method Blank	126	147 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-17922/5-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17922

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/28/22 07:30	01/28/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/28/22 07:30	01/28/22 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/28/22 07:30*	*01/28/22 11:18*	*1*

Lab Sample ID: LCS 880-17922/1-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07650		mg/Kg		76	70 - 130		
Toluene			0.100	0.07336		mg/Kg		73	70 - 130		
Ethylbenzene			0.100	0.07414		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene			0.200	0.1514		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.07781		mg/Kg		78	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-17922/2-A
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08267		mg/Kg		83	70 - 130	8	35
Toluene			0.100	0.08204		mg/Kg		82	70 - 130	11	35
Ethylbenzene			0.100	0.08305		mg/Kg		83	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	13	35
o-Xylene			0.100	0.08577		mg/Kg		86	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U	0.0998	0.08204		mg/Kg		82	70 - 130		
Toluene	<0.00201	U	0.0998	0.07890		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

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

Lab Sample ID: 890-1872-A-3-C MS
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08289		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1698		mg/Kg		85	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08492		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 890-1872-A-3-D MSD
Matrix: Solid
Analysis Batch: 17974

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.08226		mg/Kg		82	70 - 130	0	35
Toluene	<0.00201	U	0.0998	0.07930		mg/Kg		79	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0998	0.08132		mg/Kg		81	70 - 130	2	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1645		mg/Kg		82	70 - 130	3	35
o-Xylene	<0.00201	U	0.0998	0.08062		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-17976/1-A
Matrix: Solid
Analysis Batch: 17979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17976

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/28/22 08:29	01/28/22 11:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/28/22 08:29	01/28/22 11:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/28/22 08:29	01/28/22 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*126*		*70 - 130*	*01/28/22 08:29*	*01/28/22 11:31*	*1*
o-Terphenyl	*147*	*S1+*	*70 - 130*	*01/28/22 08:29*	*01/28/22 11:31*	*1*

Lab Sample ID: LCS 880-17976/2-A
Matrix: Solid
Analysis Batch: 17979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17976

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	789.1		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		105	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

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

Lab Sample ID: LCS 880-17976/2-A
Matrix: Solid
Analysis Batch: 17979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17976

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: LCSD 880-17976/3-A
Matrix: Solid
Analysis Batch: 17979

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17976

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	862.9		mg/Kg		86	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1155		mg/Kg		115	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	140	S1+	70 - 130

Lab Sample ID: 880-10654-A-41-E MS
Matrix: Solid
Analysis Batch: 17979

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 17976

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	978.4		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1075		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	63	S1-	70 - 130

Lab Sample ID: 880-10654-A-41-F MSD
Matrix: Solid
Analysis Batch: 17979

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 17976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1090		mg/Kg		106	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1231		mg/Kg		121	70 - 130	14	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	72		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-17992/1-A
Matrix: Solid
Analysis Batch: 17993

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/28/22 10:24	1

Lab Sample ID: LCS 880-17992/2-A
Matrix: Solid
Analysis Batch: 17993

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	264.7		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-17992/3-A
Matrix: Solid
Analysis Batch: 17993

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	271.7		mg/Kg		109	90 - 110	3	20

Lab Sample ID: 880-10655-A-1-B MS
Matrix: Solid
Analysis Batch: 17993

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<4.95	U	248	274.0		mg/Kg		110	90 - 110		

Lab Sample ID: 880-10655-A-1-C MSD
Matrix: Solid
Analysis Batch: 17993

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.95	U	248	266.2		mg/Kg		107	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

GC VOA

Prep Batch: 17922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Total/NA	Solid	5035	
MB 880-17922/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 17974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Total/NA	Solid	8021B	17922
MB 880-17922/5-A	Method Blank	Total/NA	Solid	8021B	17922
LCS 880-17922/1-A	Lab Control Sample	Total/NA	Solid	8021B	17922
LCSD 880-17922/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17922
890-1872-A-3-C MS	Matrix Spike	Total/NA	Solid	8021B	17922
890-1872-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17922

Analysis Batch: 18058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 17951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Total/NA	Solid	8015 NM	
880-10637-A-130 MS	Matrix Spike	Total/NA	Solid	8015 NM	

Prep Batch: 17976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Total/NA	Solid	8015NM Prep	
MB 880-17976/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17976/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17976/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10654-A-41-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10654-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 17979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-17976/1-A	Method Blank	Total/NA	Solid	8015B NM	17976
LCS 880-17976/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17976
LCSD 880-17976/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17976
880-10654-A-41-E MS	Matrix Spike	Total/NA	Solid	8015B NM	17976
880-10654-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	17976

Analysis Batch: 18548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Total/NA	Solid	8015B NM	17976

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

HPLC/IC

Leach Batch: 17992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Soluble	Solid	DI Leach	
MB 880-17992/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17992/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17992/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10655-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10655-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 17993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1875-1	FS50B	Soluble	Solid	300.0	17992
MB 880-17992/1-A	Method Blank	Soluble	Solid	300.0	17992
LCS 880-17992/2-A	Lab Control Sample	Soluble	Solid	300.0	17992
LCSD 880-17992/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17992
880-10655-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	17992
880-10655-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17992

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Client Sample ID: FS50B

Date Collected: 01/26/22 14:10
Date Received: 01/26/22 16:01

Lab Sample ID: 890-1875-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17922	01/28/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17974	01/28/22 14:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:17	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17976	01/28/22 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	18548	02/04/22 13:32	AJ	XEN MID
Soluble	Leach	DI Leach			17992	01/28/22 13:21	CH	XEN MID
Soluble	Analysis	300.0		1	17993	01/28/22 13:28	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1875-1
SDG: TE012920159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1875-1	FS50B	Solid	01/26/22 14:10	01/26/22 16:01	4

Page 417 of 799

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC Superfund ☐
State of Project: NM
Reporting:Level II ☐ Level III ☐ ST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012920159	Routine	
P.O. Number:		Rush: 24 Hr	
Sampler's Name:	Travis Casey	Due Date: 1-28-22	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.4 1.2	Thermometer ID		
Received Intact:	Yes No	T-NA-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
FS50B	S	1/26/2022	14:10	4	1	x	x	x	Composite

890-1875 Chain of Custody

Work Order Notes

IN: NAPP2034638293
CC:
API:

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/26/22 4:01	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1875-1
SDG Number: TE012920159

Login Number: 1875
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1875-1
SDG Number: TE012920159

Login Number: 1875
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/28/22 12:32 PM

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

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

March 11, 2022

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

Re: Closure Request
Ross Ranch 6
Incident Number NAPP2034638293
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 approved Remediation Work Plan (Work Plan) that was submitted to the New Mexico Oil Conservation Division (NMOCD) on May 25, 2021. This Closure Request details excavation and soil sampling activities completed at the Ross Ranch 6 (Site) located in Unit O, Section 6, Township 26 South, Range 30 East, in Eddy County, New Mexico following NMOCD approval of the Work Plan. Based on the additional excavation and soil sampling activities described below, XTO is requesting no further action (NFA) for Incident Number NAPP2034638293.

BACKGROUND

On November 28, 2020, the supply gas regulator for the heater treater pneumatic dumps malfunctioned and resulted in the release of approximately 221.05 barrels (bbls) of produced water and 17.41 bbls of crude oil onto the caliche well pad and into the adjacent pasture. The release traveled approximately 4,395 feet west into the pasture through a drainage. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; approximately 139.05 bbls of produced water and 10.95 bbls of crude oil were recovered. XTO reported the release to NMOCD, and the release was assigned Incident Number NAPP2034638293.

Following delineation of the release extent and completion of initial excavation activities, XTO submitted a Work Plan detailing the remediation activities completed to date and proposing additional excavation and soil sampling in the drainage area. The Work Plan also requested a sampling variance to collect 5-point composite soil samples at least every 500 square feet from the sidewalls and floor of the excavation.

The Work Plan was approved by NMOCD on September 8, 2021, with the following conditions of approval:

- *The variance request for the confirmation samples every 500 ft^2 is approved.*
- *All contaminated soil must be reclaimed/remediated and removed down to 4 feet below surface or until it meets strict closure criteria.*
- *In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 standards of 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg (GRO+DRO) and chlorides to 20,000 mg/kg.*
- *If equipment/high pressure pipelines hinder excavation, use a hydrovac to safely remove contaminated soil.*

The approved Work Plan 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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

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

EXCAVATION AND SOIL SAMPLING ACTIVITIES

Between October 21, 2021 and January 12, 2022, WSP personnel returned to Site to oversee excavation of impacted soil in the top 4 feet of the drainage area, as outlined in the approved Work Plan. Excavation activities were completed in the drainage area using a track-mounted backhoe, transport vehicle, and hydrovac. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a photo ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Photographic documentation of the excavation activities is included in Attachment 1.

Following removal of impacted soil, WSP collected 5-point composite soil samples at least every 500 square feet from the floors and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag

and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS63 were collected from the floor of the excavation at depths ranging from 1 foot to 4 feet bgs. Composite soil samples SW01 through SW66 were collected from the sidewalls of the excavation from depths ranging from ground surface to 4 feet bgs. The excavation extent and excavation soil sample locations are presented on Figure 1A through Figure 1C.

The excavation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported 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- GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The excavation area measured approximately 31,392 square feet. A total of approximately 4,650 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Red Bluff, Texas.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for final floor samples FS01 through FS28, FS29A, FS30 through FS43, FS44A, FS45 through FS49, FS50B, FS51, FS52, FS53A, FS54, FS55A through FS58A, FS59, and FS60A through FS63A and final sidewall samples SW01 through SW28, SW31 through SW36, SW38 through SW43, SW47 through SW58, and SW60 through SW66, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation standard in samples collected from the top four feet of the subsurface.

Laboratory analytical results for floor samples FS29, FS44, FS50/FS50A, FS53, FS55 through FS58, FS60 through FS63 and sidewall samples SW30, SW37, SW44, SW45, SW46, and SW59 initially exceeded the reclamation standard for TPH and/or chloride applied to the top 4 feet of the subsurface. Additional soil was removed from these areas and all final excavation floor and sidewall samples listed above were compliant with the reclamation standard in the top 4 feet. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Attachment 2.

CLOSURE REQUEST

Excavation and soil sampling activities were conducted at the Site as outlined in the approved Work Plan. Based on final excavation sample analytical results compliant with the Site Closure

Criteria and compliant with the reclamation standard for samples collected from the top four feet of the subsurface, XTO respectfully requests NFA for Incident Number NAPP2034638293. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

If you have any questions or comments, please do not hesitate to contact Ms. Aimee Cole at (720) 384-7365 or Aimee.Cole@wsp.com.

Kind regards,





Nihaar Katoch
Assistant Consultant, Geologist

Aimee Cole
Sr. Consultant, Environmental Scientist

cc: Shelby Pennington, XTO
Adrian Baker, XTO
Bureau of Land Management

Attachments:

Figure 1A, 1B, 1C	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Photographic Log
Attachment 2	Laboratory Analytical Reports

FIGURES

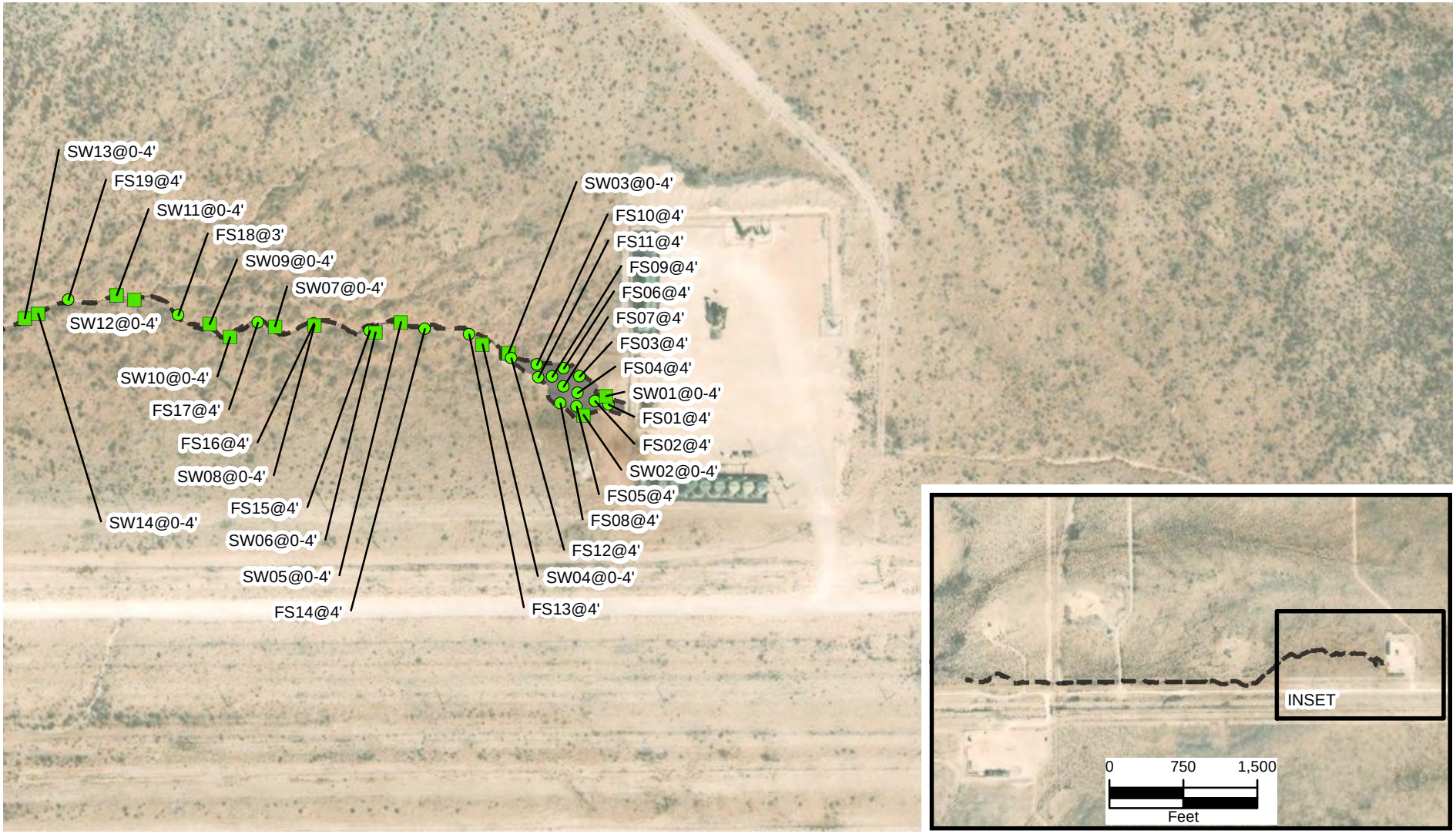


IMAGE COURTESY OF ESRI

LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT

0 200 400
Feet

N

NOTE: INCIDENT NUMBER NAPP2034638293
SAMPLE ID@ DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 1A
EXCAVATION SOIL SAMPLE LOCATIONS
ROSS RANCH 6
UNIT O SEC 6 T26S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

C:\Users\UST J689650\OneDrive - WSP O365\XTO\TE012920159_ROSS RANCH 6 FEDRAL 001H\MXD\012920159_FIG01A_EXCAVATION_2022.mxd

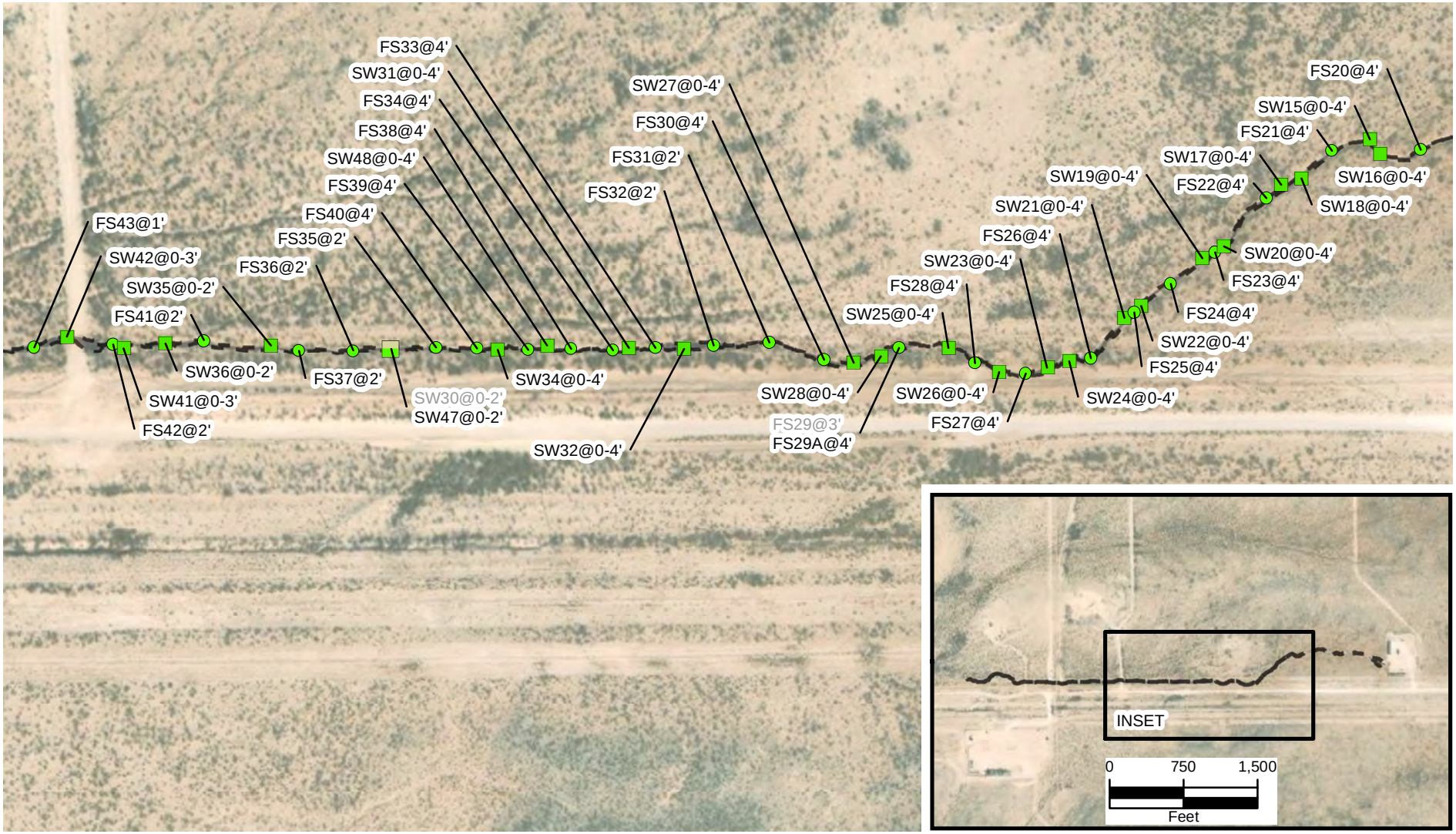


IMAGE COURTESY OF ESRI

LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED SUBSEQUENT SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT

0 200 400
Feet

N

NOTE: INCIDENT NUMBER NAPP2034638293
SAMPLE ID@ DEPTH BELOW GROUND SURFACE (FEET)

TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 1B
EXCAVATION SOIL SAMPLE LOCATIONS
ROSS RANCH 6
UNIT O SEC 6 T26S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\TE012920159_ROSS RANCH 6 FEDRAL 001H\MXD\012920159_FIG01B_EXCAVATION_2022_1.mxd

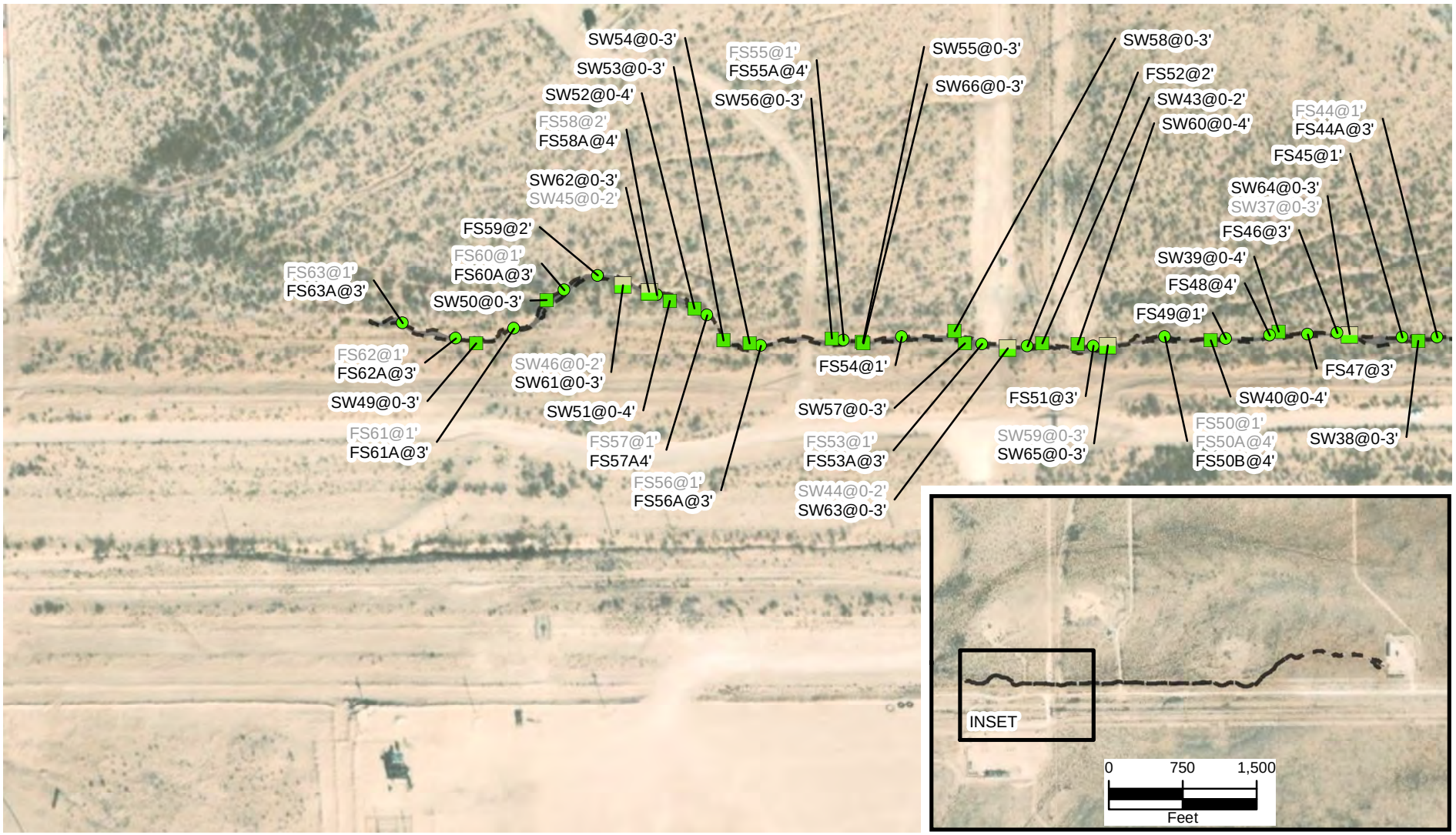


IMAGE COURTESY OF ESRI

LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED SUBSEQUENT SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT

0 200 400
Feet

N

NOTE: INCIDENT NUMBER NAPP2034638293
SAMPLE ID@ DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 1C
EXCAVATION SOIL SAMPLE LOCATIONS
ROSS RANCH 6
UNIT O SEC 6 T26S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\TE012920159_ROSS RANCH 6 FEDRAL 001H\MXD\012920159_FIG01C_EXCAVATION_2022.mxd

TABLES

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
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 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Excavation Floor Samples										
FS01	10/21/2021	4	<0.00200	<0.00400	277	<50.0	169	<50.0	446	137
FS02	10/25/2021	4	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	2,080
FS03	10/25/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	306
FS04	10/25/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	428
FS05	10/25/2021	4	<0.00199	<0.00398	490	<49.8	82.6	<49.8	573	989
FS06	10/25/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	113
FS07	10/25/2021	4	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	489
FS08	10/25/2021	4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,060
FS09	10/25/2021	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	66.1
FS10	10/25/2021	4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	965
FS11	10/25/2021	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	355
FS12	10/26/2021	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	621
FS13	10/26/2021	4	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	1,220
FS14	10/26/2021	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,630
FS15	10/26/2021	4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	1,600
FS16	10/28/2021	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	987
FS17	10/28/2021	4	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	1,480
FS18	10/28/2021	3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	278
FS19	10/28/2021	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	1,400
FS20	10/28/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,190
FS21	10/29/2021	4	<0.00201	0.00872	<49.9	<49.9	<49.9	<49.9	<49.9	1,390
FS22	10/29/2021	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	866
FS23	10/29/2021	4	<0.00198	<0.00397	631	<49.9	<49.9	<49.9	631	2,370
FS24	11/01/2021	4	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	79.3

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
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 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS25	11/01/2021	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	76.5
FS26	11/01/2021	4	<0.00199	0.0116	398	<49.9	<49.9	398	398	495
FS27	10/22/2021	4	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	113
FS28	10/22/2021	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	327
FS29	11/03/2021	3	<0.00200	<0.00400	<49.9	<49.9	<49.9	49.9	145	<49.9
FS29A	12/17/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	16.5
FS30	11/03/2021	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	49.9	68.5	<49.9
FS31	10/22/2021	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	10.3
FS32	10/22/2021	2	<0.00201	<0.00402	52.7	<49.9	<49.9	<49.9	52.7	11.0
FS33	11/03/2021	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	50.0	<50.0	17.2
FS34	11/03/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	50.0	<50.0	251
FS35	11/03/2021	2	<0.00199	<0.00398	53.0	53.0	<49.8	53.0	53.0	19.5
FS36	11/03/2021	2	<0.00198	<0.00397	70.1	70.1	<50.0	70.1	70.1	22.7
FS37	11/03/2021	2	<0.00198	<0.00396	69.9	69.9	<49.8	69.9	69.9	19.1
FS38	11/04/2021	4	<0.00198	<0.00397	<49.9	<49.9	<49.9	49.9	<49.9	117
FS39	11/04/2021	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	49.9	<49.9	0.42
FS40	11/04/2021	4	<0.00201	<0.00402	75.7	<49.9	<49.9	75.7	75.7	69.4
FS41	11/15/2021	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	35.9
FS42	11/15/2021	2	<0.00200	<0.00401	<50.0	84.9	<50.0	84.9	84.9	12.4
FS43	11/16/2021	1	<0.00199	<0.00398	<49.8	53.4	<49.8	53.4	53.4	<5.05
FS44	11/17/2021	1	<0.00199	<0.00398	<49.9	154	<49.9	<49.9	154	16.8
FS44A	12/16/2021	3	<0.00200	<0.00401	<49.9	58.9	<49.9	58.9	58.9	39.2
FS45	11/16/2021	1	<0.00199	<0.00398	<50.0	57.9	<50.0	57.9	57.9	<5.01
FS46	11/16/2021	3	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	10.3
FS47	11/16/2021	3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	8.89
FS48	11/16/2021	4	<0.00200	0.0161	<49.9	704	58.5	704	763	68.9
FS49	11/17/2021	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	21.3

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
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 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS50	11/17/2021	1	<0.00202	<0.00404	<50.0	237	<50.0	237	237	18.7
FS50A	12/16/2021	4	<0.00201	0.665	204	772	104	**1,080**	1,080	1,040
FS50B	1/26/2022	4	<0.00199	<0.00398	<50.0	73.0	<50.0	73.0	73.0	150
FS51	11/17/2021	3	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	11.4
FS52	11/18/2021	2	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	87.6
FS53	11/18/2021	1	<0.00202	<0.00404	<49.9	650	<49.9	650	650	34.0
FS53A	12/16/2021	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	68.8
FS54	11/18/2021	1	<0.00199	<0.00398	<49.9	78.1	<49.9	78.1	78.1	10.8
FS55	11/18/2021	1	<0.00199	<0.00398	<50.0	172	<50.0	172	172	20.9
FS55A	12/15/2021	4	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	293
FS56	11/18/2021	1	<0.00200	<0.00399	<49.8	761	<49.8	761	761	42.4
FS56A	12/15/2021	3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	484
FS57	11/18/2021	1	<0.00202	<0.00403	<50.0	150	<50.0	150	150	15.5
FS57A	12/15/2021	4	<0.00200	<0.00401	<50.0	130	<50.0	130	130	1,180
FS58	11/18/2021	2	<0.00200	<0.00400	<50.0	141	<50.0	141	141	7.38
FS58A	12/15/2021	4	<0.00202	<0.00404	<49.9	466	<49.9	466	466	548
FS59	11/18/2021	2	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	13.1
FS60	11/19/2021	1	<0.00202	<0.00403	<49.9	<49.9	56.3	<49.9	243	<4.99
FS60A	12/14/2021	3	<0.00199	<0.00398	<50.0	65.9	<50.0	65.9	65.9	27.3
FS61	11/19/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	109	576
FS61A	12/14/2021	3	<0.00199	<0.00398	<50.0	79.9	<50.0	79.9	79.9	93.3
FS62	11/19/2021	1	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	93.0	<4.98
FS62A	12/14/2021	3	<0.00200	<0.00401	<49.9	66.5	<49.9	66.5	66.5	17.6
FS63	11/19/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	229	<4.95
FS63A	12/14/2021	3	<0.00200	<0.00401	<49.9	66.5	<49.9	66.5	66.5	17.6

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
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 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Excavation Sidewall Samples										
SW01	10/22/2021	0 - 4	<0.00200	<0.00200	64.6	<50.0	<50.0	<50.0	64.6	30.0
SW02	10/25/2021	0 - 4	0.00205	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	388
SW03	10/25/2021	0 - 4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	8.21
SW04	10/25/2021	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	12.3
SW06	10/26/2021	0 - 4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	503
SW05	10/27/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	356
SW07	10/27/2021	0 - 4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	52.8
SW08	10/27/2021	0 - 4	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	97.5
SW09	10/28/2021	0 - 4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	13.1
SW10	10/28/2021	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	84.4
SW11	10/28/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	30.4
SW12	10/28/2021	0 - 4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	155
SW13	10/28/2021	0 - 4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	194
SW14	10/28/2021	0 - 4	0.00394	0.0173	<50.0	<50.0	<50.0	<50.0	<50.0	97.4
SW15	10/28/2021	0 - 4	<0.00200	<0.00401	69.4	<49.8	<49.8	<49.8	69.4	322
SW16	10/29/2021	0 - 4	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	31.0
SW17	10/29/2021	0 - 4	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	63.6
SW18	10/29/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	62.1
SW19	11/01/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	16.7
SW20	11/01/2021	0 - 4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	50.3
SW21	11/01/2021	0 - 4	<0.00199	<0.00398	<49.8	52.8	<49.8	<49.8	52.8	38.4
SW22	11/01/2021	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	16.5
SW23	11/01/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	17.6
SW24	11/01/2021	0 - 4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	26.6

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
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 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SW25	10/22/2021	0 - 4	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	27.4
SW26	10/22/2021	0 - 4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	26.8
SW27	11/03/2021	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	50.0	<50.0	62.4
SW28	11/03/2021	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	49.9	<49.9	68.7
SW30	11/03/2021	0 - 2	<0.00200	<0.00399	<50.0	401	59.8	401	461	270
SW31	11/03/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	49.9	<49.9	23.9
SW32	11/03/2021	0 - 4	<0.00200	<0.00399	<49.9	53.4	<49.9	53.4	53.4	29.3
SW34	11/04/2021	0 - 4	<0.00200	<0.00399	<49.8	<49.8	<49.8	49.8	<49.8	118
SW35	11/15/2021	0 - 2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	70.0
SW36	11/15/2021	0 - 2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	70.0
SW37	11/04/2021	0 - 3	<0.00200	<0.00401	<49.8	320	59.8	49.8	380	477
SW38	11/17/2021	0 - 3	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	73.2
SW39	11/17/2021	0 - 4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	131
SW40	11/17/2021	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	20.6
SW41	01/12/2022	0 - 3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	14.8
SW42	01/12/2022	0 - 3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	66.3
SW43	11/18/2021	0 - 2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	60.1
SW44	11/18/2021	0 - 2	<0.00202	<0.00404	<50.0	112	<50.0	112	112	137
SW45	11/18/2021	0 - 2	<0.00198	<0.00397	<49.9	1560	145	1,560	1,710	155
SW46	11/18/2021	0 - 2	<0.00200	<0.00400	<50.0	248	<50.0	248	248	44.7
SW47	11/19/2021	0 - 2	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	<5.05
SW48	11/19/2021	0 - 4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.8	<49.9	90.9

Table 1

Soil Analytical Results
Ross Ranch 6
Incident Number NAPP2034638293
XTO Energy, Inc.
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 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SW49	12/14/2021	0 - 3	<0.00202	<0.00403	<50.0	75.4	<50.0	75.4	75.4	51.7
SW50	12/16/2021	0 - 3	<0.00199	<0.00398	<49.9	80.3	<49.9	80.3	80.3	320
SW51	12/15/2021	0 - 4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	45.3
SW52	12/15/2021	0 - 4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	16.2
SW53	12/16/2021	0 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	37.9
SW54	12/15/2021	0 - 3	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	375
SW55	12/15/2021	0 - 3	<0.00199	<0.00398	<50.0	286	<50.0	286	286	50.8
SW56	12/15/2021	0 - 3	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	389
SW57	12/16/2021	0 - 3	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	11.1
SW58	12/16/2021	0 - 3	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	23.6
SW59	12/16/2021	0 - 3	<0.00202	<0.00404	<49.9	778	121	899	899	47.4
SW60	12/16/2021	0 - 4	<0.00199	<0.00398	<49.9	56.3	<49.9	56.3	56.3	149
SW61	12/17/2021	0 - 3	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	239
SW62	12/17/2021	0 - 3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	330
SW63	12/17/2021	0 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	175
SW64	12/17/2021	0 - 3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	92.9
SW65	01/12/2022	0 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	22.6
SW66	01/12/2022	0 - 3	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	23.0

Notes:
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 - oil range organics
ORO - 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

ATTACHMENT 1: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Ross Ranch 6 Eddy County, New Mexico	NAPP2034638293

Photo No.	Date
1	October 19, 2021

East facing view of eastern excavation extent.

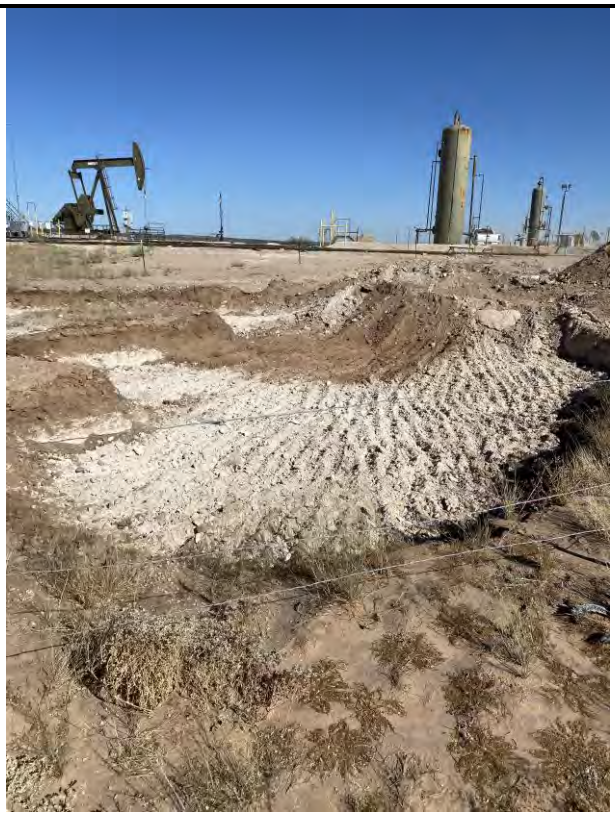


Photo No.	Date
2	October 21, 2021

Southeast facing view of eastern excavation extent.



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Ross Ranch 6 Eddy County, New Mexico	NAPP2034638293

Photo No.	Date
3	October 25, 2021

Southeast facing view of excavation near the east end of the release extent



Photo No.	Date
4	October 29, 2021

West facing view of excavation near the west end of the release extent



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Ross Ranch 6 Eddy County, New Mexico	NAPP2034638293

Photo No.	Date
5	December 15, 2021

East facing view of excavation near the west end of the release extent



Photo No.	Date
6	December 17, 2021

East facing view of excavation near the west end of the release extent



ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing America



ANALYTICAL REPORT

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

Laboratory Job ID: 890-1472-1
Laboratory Sample Delivery Group: te012920159
Client Project/Site: Ross Ranch 6

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/1/2021 11:23:11 AM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1472-1
SDG: te012920159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1472-1
Project/Site: Ross Ranch 6 SDG: te012920159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

Job ID: 890-1472-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1472-1

Receipt
The sample was received on 10/22/2021 9:13 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 5.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-10432 and analytical batch 880-10403 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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

Client Sample ID: FS01

Date Collected: 10/21/21 14:37
Date Received: 10/22/21 09:13
Sample Depth: 4

Lab Sample ID: 890-1472-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 10:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 10:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 10:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/25/21 13:56	10/27/21 10:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 10:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/25/21 13:56	10/27/21 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*10/25/21 13:56*	*10/27/21 10:29*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/25/21 13:56*	*10/27/21 10:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			10/29/21 15:37	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**446**		50.0		mg/Kg			10/27/21 13:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/28/21 16:32	10/29/21 22:18	1
Diesel Range Organics (Over C10-C28)	**277**		50.0		mg/Kg		10/28/21 16:32	10/29/21 22:18	1
Oil Range Organics (Over C28-C36)	**169**		50.0		mg/Kg		10/28/21 16:32	10/29/21 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*10/28/21 16:32*	*10/29/21 22:18*	*1*
o-Terphenyl	*125*		*70 - 130*	*10/28/21 16:32*	*10/29/21 22:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**137**		4.95		mg/Kg			10/29/21 12:05	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-7440-A-1-A MS	Matrix Spike	111	112
880-7440-A-1-B MSD	Matrix Spike Duplicate	1518140 S1+	1686735 S1+
890-1472-1	FS01	113	106
LCS 880-10432/1-A	Lab Control Sample	104	111
LCSD 880-10432/2-A	Lab Control Sample Dup	104	105
MB 880-10198/5-A	Method Blank	72	100
MB 880-10432/5-A	Method Blank	77	101

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-7440-A-2-E MS	Matrix Spike	101	95
880-7440-A-2-F MSD	Matrix Spike Duplicate	103	100
890-1472-1	FS01	122	125
LCS 880-10871/2-A	Lab Control Sample	102	96
LCSD 880-10871/3-A	Lab Control Sample Dup	99	92
MB 880-10871/1-A	Method Blank	115	123

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10198/5-A
Matrix: Solid
Analysis Batch: 10403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10198

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/22/21 09:41	10/26/21 08:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/22/21 09:41	10/26/21 08:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/22/21 09:41	10/26/21 08:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/22/21 09:41	10/26/21 08:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/22/21 09:41	10/26/21 08:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/22/21 09:41	10/26/21 08:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*10/22/21 09:41*	*10/26/21 08:19*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*10/22/21 09:41*	*10/26/21 08:19*	*1*

Lab Sample ID: MB 880-10432/5-A
Matrix: Solid
Analysis Batch: 10403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10432

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 00:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 00:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 00:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/25/21 13:56	10/27/21 00:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/25/21 13:56	10/27/21 00:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/25/21 13:56	10/27/21 00:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*10/25/21 13:56*	*10/27/21 00:00*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/25/21 13:56*	*10/27/21 00:00*	*1*

Lab Sample ID: LCS 880-10432/1-A
Matrix: Solid
Analysis Batch: 10403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10432

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1010		mg/Kg		101	70 - 130		
Toluene			0.100	0.09607		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09451		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1833		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.1163		mg/Kg		116	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-10432/2-A
Matrix: Solid
Analysis Batch: 10403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10432

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1001		mg/Kg		100	70 - 130	1	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

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

Lab Sample ID: LCSD 880-10432/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10403 — **Prep Batch: 10432**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09370		mg/Kg		94	70 - 130	3	35
Ethylbenzene			0.100	0.09384		mg/Kg		94	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1819		mg/Kg		91	70 - 130	1	35
o-Xylene			0.100	0.1162		mg/Kg		116	70 - 130	0	35

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

Lab Sample ID: 880-7440-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10403 — **Prep Batch: 10432**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F1	0.101	0.05291	F1	mg/Kg		52	70 - 130
Toluene	<0.00200	U F1 F2	0.101	0.03919	F1	mg/Kg		39	70 - 130
Ethylbenzene	<0.00200	U F1	0.101	0.02996	F1	mg/Kg		30	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.202	0.05338	F1	mg/Kg		26	70 - 130
o-Xylene	<0.00200	U F1 F2	0.101	0.03946	F1	mg/Kg		39	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-7440-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10403 — **Prep Batch: 10432**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.100	0.04937	F1	mg/Kg		49	70 - 130	7	35
Toluene	<0.00200	U F1 F2	0.100	0.1315	F1 F2	mg/Kg		131	70 - 130	108	35
Ethylbenzene	<0.00200	U F1	0.100	0.04058	F1	mg/Kg		41	70 - 130	30	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.04848	F1	mg/Kg		24	70 - 130	10	35
o-Xylene	<0.00200	U F1 F2	0.100	0.06950	F2	mg/Kg		70	70 - 130	55	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*1518140*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*1686735*	*S1+*	*70 - 130*

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

Lab Sample ID: MB 880-10871/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10887 — **Prep Batch: 10871**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/28/21 16:32	10/29/21 19:59	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

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

Lab Sample ID: MB 880-10871/1-A
Matrix: Solid
Analysis Batch: 10887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10871

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/28/21 16:32	10/29/21 19:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/28/21 16:32	10/29/21 19:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*10/28/21 16:32*	*10/29/21 19:59*	*1*
o-Terphenyl	*123*		*70 - 130*	*10/28/21 16:32*	*10/29/21 19:59*	*1*

Lab Sample ID: LCS 880-10871/2-A
Matrix: Solid
Analysis Batch: 10887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10871

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1166		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	878.0		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: LCSD 880-10871/3-A
Matrix: Solid
Analysis Batch: 10887

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10871

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1072		mg/Kg		107	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	835.4		mg/Kg		84	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: 880-7440-A-2-E MS
Matrix: Solid
Analysis Batch: 10887

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 10871

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1240		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	955.8		mg/Kg		94	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

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

Lab Sample ID: 880-7440-A-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10887 — **Prep Batch: 10871**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1271		mg/Kg		127	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1022		mg/Kg		100	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10660/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 10799

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/29/21 08:58	1

Lab Sample ID: LCS 880-10660/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 10799

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	248.7		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-10660/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 10799

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	247.7		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-7518-A-4-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 10799

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	182		250	419.3		mg/Kg		95	90 - 110		

Lab Sample ID: 880-7518-A-4-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 10799

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	182		250	434.2		mg/Kg		101	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

GC VOA

Prep Batch: 10198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-10198/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 10403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Total/NA	Solid	8021B	10432
MB 880-10198/5-A	Method Blank	Total/NA	Solid	8021B	10198
MB 880-10432/5-A	Method Blank	Total/NA	Solid	8021B	10432
LCS 880-10432/1-A	Lab Control Sample	Total/NA	Solid	8021B	10432
LCSD 880-10432/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	10432
880-7440-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	10432
880-7440-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	10432

Prep Batch: 10432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Total/NA	Solid	5035	
MB 880-10432/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-10432/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-10432/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-7440-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-7440-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 10676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Total/NA	Solid	8015 NM	

Prep Batch: 10871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Total/NA	Solid	8015NM Prep	
MB 880-10871/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10871/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10871/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7440-A-2-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7440-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Total/NA	Solid	8015B NM	10871
MB 880-10871/1-A	Method Blank	Total/NA	Solid	8015B NM	10871
LCS 880-10871/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10871
LCSD 880-10871/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10871
880-7440-A-2-E MS	Matrix Spike	Total/NA	Solid	8015B NM	10871
880-7440-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10871

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

HPLC/IC

Leach Batch: 10660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Soluble	Solid	DI Leach	
MB 880-10660/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10660/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10660/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7518-A-4-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7518-A-4-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 10799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1472-1	FS01	Soluble	Solid	300.0	10660
MB 880-10660/1-A	Method Blank	Soluble	Solid	300.0	10660
LCS 880-10660/2-A	Lab Control Sample	Soluble	Solid	300.0	10660
LCSD 880-10660/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10660
880-7518-A-4-F MS	Matrix Spike	Soluble	Solid	300.0	10660
880-7518-A-4-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10660

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

Client Sample ID: FS01

Date Collected: 10/21/21 14:37
Date Received: 10/22/21 09:13

Lab Sample ID: 890-1472-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10432	10/25/21 13:56	KL	XEN MID
Total/NA	Analysis	8021B		1	10403	10/27/21 10:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	10986	10/29/21 15:37	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	10676	10/27/21 13:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10871	10/28/21 16:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10887	10/29/21 22:18	AJ	XEN MID
Soluble	Leach	DI Leach			10660	10/26/21 17:10	CA	XEN MID
Soluble	Analysis	300.0		1	10799	10/29/21 12:05	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1472-1
SDG: te012920159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1472-1	FS01	Solid	10/21/21 14:37	10/22/21 09:13	4

Page 456 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012920159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	5.4 / 5.2	Thermometer ID	TWM007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS01	S	10/21/2021	1437	4'	1	X	X	X	COMPOSITE

890-1472 Chain of Custody

Work Order Notes

Incident #:nAPP2034638293
AFE:EW.2021.01556.EXP .01

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	10.22.21 0913	10/22/21 0917	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

11/1/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 457 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-477 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1472-1
Address: 1211 W Florida Ave	Due Date Requested: 10/29/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M Hexane		
B NaOH	N None		
C Zn Acetate	O AsNaO2		
D Nitric Acid	P Na2O4S		
E NaHSO4	Q Na2SO3		
F MeOH	R Na2S2O3		
G Amchlor	S H2SO4		
H Ascorbic Acid	T TSP Dodecahydrate		
I Ice	U Acetone		
J DI Water	V MCAA		
K EDTA	W pH 4-5		
L EDA	Z other (specify)		

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS01 (890-1472-1)	10/21/21	14 37 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Chris Cruz 10.22.21			Kramer	10 25 21 800	
2	Relinquished by	Date/Time.	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		3.3/3.4

Ver: 06/08/2021

Page 18 of 20
11/1/2021
Received by OCD: 3/4/2022 1:28:26 PM
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1472-1
SDG Number: te012920159

Login Number: 1472
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1472-1
SDG Number: te012920159

Login Number: 1472
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 10/25/21 08:20 AM

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	3.3/3.4
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1480-1
Laboratory Sample Delivery Group: TE012929159
Client Project/Site: Ross Ranch 6

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/1/2021 3:17:42 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1480-1
SDG: TE012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1480-1
Project/Site: Ross Ranch 6 SDG: TE012929159

Qualifiers

GC VOA

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
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

Job ID: 890-1480-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1480-1

Receipt
The sample was received on 10/25/2021 4:43 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 2.8°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (890-1484-A-1-C), (890-1484-A-1-D MS) and (890-1484-A-1-B MSD). 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.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

Client Sample ID: SW01

Date Collected: 10/22/21 15:11
Date Received: 10/25/21 16:43
Sample Depth: 0 - 4

Lab Sample ID: 890-1480-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 06:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 06:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 06:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/27/21 10:38	10/29/21 06:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 06:39	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/27/21 10:38	10/29/21 06:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*10/27/21 10:38*	*10/29/21 06:39*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*10/27/21 10:38*	*10/29/21 06:39*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**64.6**		50.0		mg/Kg			10/29/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 09:53	10/29/21 22:54	1
Diesel Range Organics (Over C10-C28)	**64.6**		50.0		mg/Kg		10/29/21 09:53	10/29/21 22:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 09:53	10/29/21 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*10/29/21 09:53*	*10/29/21 22:54*	*1*
o-Terphenyl	*116*		*70 - 130*	*10/29/21 09:53*	*10/29/21 22:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.0**		4.96		mg/Kg			10/30/21 18:24	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1480-1	SW01	70	75
890-1484-A-1-B MSD	Matrix Spike Duplicate	76	82
890-1484-A-1-D MS	Matrix Spike	94	100
LCS 880-10615/1-A	Lab Control Sample	96	103
LCSD 880-10615/2-A	Lab Control Sample Dup	94	103
MB 880-10614/5-A	Method Blank	99	105
MB 880-10615/5-A	Method Blank	97	106

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1480-1	SW01	120	116
890-1481-A-1-F MS	Matrix Spike	107	92
890-1481-A-1-G MSD	Matrix Spike Duplicate	122	101
LCS 880-10916/2-A	Lab Control Sample	100	91
LCSD 880-10916/3-A	Lab Control Sample Dup	96	90
MB 880-10916/1-A	Method Blank	140 S1+	145 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10614/5-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10614

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/26/21 10:34	10/28/21 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/26/21 10:34*	*10/28/21 12:45*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/26/21 10:34*	*10/28/21 12:45*	*1*

Lab Sample ID: MB 880-10615/5-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10615

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/27/21 10:38	10/29/21 00:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*10/27/21 10:38*	*10/29/21 00:18*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/27/21 10:38*	*10/29/21 00:18*	*1*

Lab Sample ID: LCS 880-10615/1-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10615

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09333		mg/Kg		93	70 - 130		
Toluene			0.100	0.1037		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1057		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2092		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1145		mg/Kg		115	70 - 130		

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

Lab Sample ID: LCSD 880-10615/2-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10615

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09971		mg/Kg		100	70 - 130	7	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

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

Lab Sample ID: LCSD 880-10615/2-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10615

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1086		mg/Kg		109	70 - 130	5	35
Ethylbenzene			0.100	0.1121		mg/Kg		112	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2225		mg/Kg		111	70 - 130	6	35
o-Xylene			0.100	0.1158		mg/Kg		116	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1484-A-1-B MSD
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 10615

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00205	F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00199	U F1 F2	0.0998	0.02243	F1 F2	mg/Kg		22	70 - 130	83	35
Ethylbenzene	<0.00199	U F1 F2	0.0998	0.03041	F1 F2	mg/Kg		30	70 - 130	68	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.04465	F1 F2	mg/Kg		22	70 - 130	91	35
o-Xylene	<0.00199	U F1 F2	0.0998	0.02490	F1 F2	mg/Kg		25	70 - 130	94	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*

Lab Sample ID: 890-1484-A-1-D MS
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 10615

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.00205	F1	0.100	0.05500	F1	mg/Kg		53	70 - 130
Toluene	<0.00199	U F1 F2	0.100	0.05453	F1	mg/Kg		54	70 - 130
Ethylbenzene	<0.00199	U F1 F2	0.100	0.06169	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.1194	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1 F2	0.100	0.06899	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-10916/1-A
Matrix: Solid
Analysis Batch: 10891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10916

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 09:53	10/29/21 20:27	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

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

Lab Sample ID: MB 880-10916/1-A
Matrix: Solid
Analysis Batch: 10891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10916

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 09:53	10/29/21 20:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 09:53	10/29/21 20:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*140*	*S1+*	*70 - 130*	*10/29/21 09:53*	*10/29/21 20:27*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*10/29/21 09:53*	*10/29/21 20:27*	*1*

Lab Sample ID: LCS 880-10916/2-A
Matrix: Solid
Analysis Batch: 10891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	823.6		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1181		mg/Kg		118	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: LCSD 880-10916/3-A
Matrix: Solid
Analysis Batch: 10891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10916

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	844.9		mg/Kg		84	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1080		mg/Kg		108	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: 890-1481-A-1-F MS
Matrix: Solid
Analysis Batch: 10891

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 10916

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1025		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	330	F1	997	969.1	F1	mg/Kg		64	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

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

Lab Sample ID: 890-1481-A-1-G MSD
Matrix: Solid
Analysis Batch: 10891

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 10916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1135		mg/Kg		113	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	330	F1	1000	1127		mg/Kg		80	70 - 130	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*122*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10738/1-A
Matrix: Solid
Analysis Batch: 11004

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/30/21 16:20	1

Lab Sample ID: LCS 880-10738/2-A
Matrix: Solid
Analysis Batch: 11004

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	233.8		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-10738/3-A
Matrix: Solid
Analysis Batch: 11004

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	233.8		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 880-7580-A-1-E MS
Matrix: Solid
Analysis Batch: 11004

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	21.1		248	268.4		mg/Kg		100	90 - 110		

Lab Sample ID: 880-7580-A-1-F MSD
Matrix: Solid
Analysis Batch: 11004

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	21.1		248	268.1		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

GC VOA

Prep Batch: 10614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-10614/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 10615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Total/NA	Solid	5035	
MB 880-10615/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-10615/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-10615/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1484-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
890-1484-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 10827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Total/NA	Solid	8021B	10615
MB 880-10614/5-A	Method Blank	Total/NA	Solid	8021B	10614
MB 880-10615/5-A	Method Blank	Total/NA	Solid	8021B	10615
LCS 880-10615/1-A	Lab Control Sample	Total/NA	Solid	8021B	10615
LCSD 880-10615/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	10615
890-1484-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	10615
890-1484-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	10615

GC Semi VOA

Analysis Batch: 10891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Total/NA	Solid	8015B NM	10916
MB 880-10916/1-A	Method Blank	Total/NA	Solid	8015B NM	10916
LCS 880-10916/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10916
LCSD 880-10916/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10916
890-1481-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	10916
890-1481-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10916

Prep Batch: 10916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Total/NA	Solid	8015NM Prep	
MB 880-10916/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10916/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10916/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1481-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1481-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 10738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Soluble	Solid	DI Leach	
MB 880-10738/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10738/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

HPLC/IC (Continued)

Leach Batch: 10738 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-10738/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7580-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7580-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1480-1	SW01	Soluble	Solid	300.0	10738
MB 880-10738/1-A	Method Blank	Soluble	Solid	300.0	10738
LCS 880-10738/2-A	Lab Control Sample	Soluble	Solid	300.0	10738
LCSD 880-10738/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10738
880-7580-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	10738
880-7580-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10738

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

Client Sample ID: SW01

Date Collected: 10/22/21 15:11
Date Received: 10/25/21 16:43

Lab Sample ID: 890-1480-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 06:39	MR	XEN MID
Total/NA	Analysis	8015 NM		1	10946	10/29/21 13:53	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10916	10/29/21 09:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10891	10/29/21 22:54	AJ	XEN MID
Soluble	Leach	DI Leach			10738	10/27/21 12:23	SC	XEN MID
Soluble	Analysis	300.0		1	11004	10/30/21 18:24	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

Method Summary

Client: WSP USA Inc. Job ID: 890-1480-1
Project/Site: Ross Ranch 6 SDG: TE012929159

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

Protocol References:

ASTM = ASTM International

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

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

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: Ross Ranch 6

Job ID: 890-1480-1
SDG: TE012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1480-1	SW01	Solid	10/22/21 15:11	10/25/21 16:43	0 - 4

Page 476 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.0/2.8	Thermometer ID	TNM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW01	S	10/22/2021	1511	0-4	1	X	X	X	COMPOSITE

890-1480 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10-25-21 14:00	2		10.25.21 1643
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 17 of 20

11/1/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 477 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax. 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-481 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1480-1
Address: 1211 W Florida Ave	Due Date Requested: 10/29/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/6036FP_Calc (MOD) BTEX	Total Number of containers	Special Instructions/Note
			Preservation Code:									
SW01 (890-1480-1)	10/22/21	15 11 Mountain		Solid			X	X	X	X	4	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Cole Cuff 10.26.21			Kramer	~~10.26~~	
Relinquished by	Date/Time	Company	Received by	Date/Time 10.27.21 1112	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 2.6/2.7

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1480-1
SDG Number: TE012929159

Login Number: 1480
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1480-1
SDG Number: TE012929159

Login Number: 1480
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 10/27/21 11:09 AM

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	2.6/2.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1484-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/2/2021 3:27:59 PM

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

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

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1484-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 16
QC Sample Results 18
QC Association Summary 22
Lab Chronicle 26
Certification Summary 30
Method Summary 31
Sample Summary 32
Chain of Custody 33
Receipt Checklists 37

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1484-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Job ID: 890-1484-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1484-1

Receipt
The samples were received on 10/26/2021 8:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SW02 (890-1484-1), FS07 (890-1484-7), FS10 (890-1484-10), (890-1484-A-1-D MS) and (890-1484-A-1-B MSD). 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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-10739 and analytical batch 880-11104 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: SW02

Lab Sample ID: 890-1484-1
Matrix: Solid
Date Collected: 10/25/21 10:00
Date Received: 10/26/21 08:25
Sample Depth: 4 - 0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00205**	**F1**	0.00199		mg/Kg		10/27/21 10:38	10/29/21 00:46	1
Toluene	<0.00199	U F1 F2	0.00199		mg/Kg		10/27/21 10:38	10/29/21 00:46	1
Ethylbenzene	<0.00199	U F1 F2	0.00199		mg/Kg		10/27/21 10:38	10/29/21 00:46	1
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.00398		mg/Kg		10/27/21 10:38	10/29/21 00:46	1
o-Xylene	<0.00199	U F1 F2	0.00199		mg/Kg		10/27/21 10:38	10/29/21 00:46	1
Xylenes, Total	<0.00398	U F1 F2	0.00398		mg/Kg		10/27/21 10:38	10/29/21 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*10/27/21 10:38*	*10/29/21 00:46*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*10/27/21 10:38*	*10/29/21 00:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/30/21 21:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/30/21 21:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/30/21 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*10/29/21 15:20*	*10/30/21 21:24*	*1*
o-Terphenyl	*111*		*70 - 130*	*10/29/21 15:20*	*10/30/21 21:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**388**		4.97		mg/Kg			11/01/21 16:05	1

Client Sample ID: FS02

Lab Sample ID: 890-1484-2
Matrix: Solid
Date Collected: 10/25/21 11:45
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 01:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 01:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 01:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		10/27/21 10:38	10/29/21 01:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 01:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		10/27/21 10:38	10/29/21 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*10/27/21 10:38*	*10/29/21 01:06*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS02

Lab Sample ID: 890-1484-2
Matrix: Solid
Date Collected: 10/25/21 11:45
Date Received: 10/26/21 08:25
Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*10/27/21 10:38*	*10/29/21 01:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/29/21 15:20	10/30/21 22:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/29/21 15:20	10/30/21 22:28	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/29/21 15:20	10/30/21 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*99*		*70 - 130*	*10/29/21 15:20*	*10/30/21 22:28*	*1*
o-Terphenyl	*107*		*70 - 130*	*10/29/21 15:20*	*10/30/21 22:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2080**		25.3	mg/Kg			11/01/21 16:12	5

Client Sample ID: FS03

Lab Sample ID: 890-1484-3
Matrix: Solid
Date Collected: 10/25/21 11:47
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/27/21 10:38	10/29/21 01:27	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/27/21 10:38	10/29/21 01:27	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/27/21 10:38	10/29/21 01:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/27/21 10:38	10/29/21 01:27	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/27/21 10:38	10/29/21 01:27	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/27/21 10:38	10/29/21 01:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*10/27/21 10:38*	*10/29/21 01:27*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*10/27/21 10:38*	*10/29/21 01:27*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/01/21 12:32	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS03

Lab Sample ID: 890-1484-3
Matrix: Solid
Date Collected: 10/25/21 11:47
Date Received: 10/26/21 08:25
Sample Depth: 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 22:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 22:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*10/29/21 15:20*	*10/30/21 22:49*	*1*
o-Terphenyl	*103*		*70 - 130*	*10/29/21 15:20*	*10/30/21 22:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**306**		50.0		mg/Kg			11/01/21 16:19	10

Client Sample ID: FS04

Lab Sample ID: 890-1484-4
Matrix: Solid
Date Collected: 10/25/21 11:49
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 01:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 01:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 01:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 01:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 01:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*10/27/21 10:38*	*10/29/21 01:47*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*10/27/21 10:38*	*10/29/21 01:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 23:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 23:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*10/29/21 15:20*	*10/30/21 23:10*	*1*
o-Terphenyl	*102*		*70 - 130*	*10/29/21 15:20*	*10/30/21 23:10*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS04
Date Collected: 10/25/21 11:49
Date Received: 10/26/21 08:25
Sample Depth: 4

Lab Sample ID: 890-1484-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**428**	**F1**	5.01		mg/Kg			11/01/21 16:26	1

Client Sample ID: FS05
Date Collected: 10/25/21 11:51
Date Received: 10/26/21 08:25
Sample Depth: 4

Lab Sample ID: 890-1484-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 02:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*10/27/21 10:38*	*10/29/21 02:08*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*10/27/21 10:38*	*10/29/21 02:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**573**		49.8		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		10/29/21 15:20	10/30/21 23:31	1
Diesel Range Organics (Over C10-C28)	**490**		49.8		mg/Kg		10/29/21 15:20	10/30/21 23:31	1
Oil Range Organics (Over C28-C36)	**82.6**		49.8		mg/Kg		10/29/21 15:20	10/30/21 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*10/29/21 15:20*	*10/30/21 23:31*	*1*
o-Terphenyl	*109*		*70 - 130*	*10/29/21 15:20*	*10/30/21 23:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**989**		4.97		mg/Kg			11/01/21 16:46	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS06

Lab Sample ID: 890-1484-6
Matrix: Solid
Date Collected: 10/25/21 11:53
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 02:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 02:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*10/27/21 10:38*	*10/29/21 02:28*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*10/27/21 10:38*	*10/29/21 02:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 23:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 23:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*10/29/21 15:20*	*10/30/21 23:51*	*1*
o-Terphenyl	*112*		*70 - 130*	*10/29/21 15:20*	*10/30/21 23:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**113**		4.99		mg/Kg			11/01/21 16:53	1

Client Sample ID: FS07

Lab Sample ID: 890-1484-7
Matrix: Solid
Date Collected: 10/25/21 11:55
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 02:48	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 02:48	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 02:48	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		10/27/21 10:38	10/29/21 02:48	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		10/27/21 10:38	10/29/21 02:48	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		10/27/21 10:38	10/29/21 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*10/27/21 10:38*	*10/29/21 02:48*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS07

Lab Sample ID: 890-1484-7
Matrix: Solid
Date Collected: 10/25/21 11:55
Date Received: 10/26/21 08:25
Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*10/27/21 10:38*	*10/29/21 02:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		10/29/21 15:20	10/31/21 00:12	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		10/29/21 15:20	10/31/21 00:12	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		10/29/21 15:20	10/31/21 00:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*103*		*70 - 130*	*10/29/21 15:20*	*10/31/21 00:12*	*1*
o-Terphenyl	*108*		*70 - 130*	*10/29/21 15:20*	*10/31/21 00:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**489**		4.96		mg/Kg			11/01/21 17:14	1

Client Sample ID: FS08

Lab Sample ID: 890-1484-8
Matrix: Solid
Date Collected: 10/25/21 11:57
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 03:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 03:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 03:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/27/21 10:38	10/29/21 03:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 03:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/27/21 10:38	10/29/21 03:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*10/27/21 10:38*	*10/29/21 03:09*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*10/27/21 10:38*	*10/29/21 03:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:32	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS08

Lab Sample ID: 890-1484-8
Matrix: Solid
Date Collected: 10/25/21 11:57
Date Received: 10/26/21 08:25
Sample Depth: 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/31/21 00:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/31/21 00:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/31/21 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*10/29/21 15:20*	*10/31/21 00:33*	*1*
o-Terphenyl	*108*		*70 - 130*	*10/29/21 15:20*	*10/31/21 00:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1060**		5.04		mg/Kg			11/01/21 17:21	1

Client Sample ID: FS09

Lab Sample ID: 890-1484-9
Matrix: Solid
Date Collected: 10/25/21 11:59
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 03:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 03:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 03:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 03:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/27/21 10:38	10/29/21 03:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/27/21 10:38	10/29/21 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*10/27/21 10:38*	*10/29/21 03:29*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/27/21 10:38*	*10/29/21 03:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 00:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 00:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*10/29/21 15:20*	*10/31/21 00:54*	*1*
o-Terphenyl	*112*		*70 - 130*	*10/29/21 15:20*	*10/31/21 00:54*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS09

Lab Sample ID: 890-1484-9
Matrix: Solid
Date Collected: 10/25/21 11:59
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	66.1		4.97		mg/Kg			11/01/21 17:28	1

Client Sample ID: FS10

Lab Sample ID: 890-1484-10
Matrix: Solid
Date Collected: 10/25/21 13:38
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/27/21 10:38	10/29/21 03:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/27/21 10:38	10/29/21 03:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/27/21 10:38	10/29/21 03:50	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		10/27/21 10:38	10/29/21 03:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		10/27/21 10:38	10/29/21 03:50	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		10/27/21 10:38	10/29/21 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*61*	*S1-*	*70 - 130*	*10/27/21 10:38*	*10/29/21 03:50*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*10/27/21 10:38*	*10/29/21 03:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 01:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 01:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*10/29/21 15:20*	*10/31/21 01:15*	*1*
o-Terphenyl	*129*		*70 - 130*	*10/29/21 15:20*	*10/31/21 01:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	965		5.04		mg/Kg			11/01/21 17:35	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: SW03

Lab Sample ID: 890-1484-11
Matrix: Solid
Date Collected: 10/25/21 14:01
Date Received: 10/26/21 08:25
Sample Depth: 4 - 0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/27/21 10:38	10/29/21 05:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:38	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/27/21 10:38	10/29/21 05:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*10/27/21 10:38*	*10/29/21 05:38*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*10/27/21 10:38*	*10/29/21 05:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 01:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 01:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 01:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*10/29/21 15:20*	*10/31/21 01:57*	*1*
o-Terphenyl	*126*		*70 - 130*	*10/29/21 15:20*	*10/31/21 01:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.21**		5.03		mg/Kg			11/01/21 17:41	1

Client Sample ID: SW04

Lab Sample ID: 890-1484-12
Matrix: Solid
Date Collected: 10/25/21 14:05
Date Received: 10/26/21 08:25
Sample Depth: 4 - 0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/27/21 10:38	10/29/21 05:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 05:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/27/21 10:38	10/29/21 05:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*10/27/21 10:38*	*10/29/21 05:59*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: SW04

Lab Sample ID: 890-1484-12
Matrix: Solid
Date Collected: 10/25/21 14:05
Date Received: 10/26/21 08:25
Sample Depth: 4 - 0

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/27/21 10:38*	*10/29/21 05:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 02:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 02:18	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 02:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*109*		*70 - 130*	*10/29/21 15:20*	*10/31/21 02:18*	*1*
o-Terphenyl	*117*		*70 - 130*	*10/29/21 15:20*	*10/31/21 02:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.3**		4.97		mg/Kg			11/01/21 17:48	1

Client Sample ID: FS11

Lab Sample ID: 890-1484-13
Matrix: Solid
Date Collected: 10/25/21 13:40
Date Received: 10/26/21 08:25
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/27/21 10:38	10/29/21 06:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/27/21 10:38	10/29/21 06:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/27/21 10:38	10/29/21 06:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/27/21 10:38	10/29/21 06:19	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/27/21 10:38	10/29/21 06:19	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/27/21 10:38	10/29/21 06:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*10/27/21 10:38*	*10/29/21 06:19*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*10/27/21 10:38*	*10/29/21 06:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/01/21 13:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:47	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS11
Date Collected: 10/25/21 13:40
Date Received: 10/26/21 08:25
Sample Depth: 4

Lab Sample ID: 890-1484-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 02:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 02:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/29/21 15:20	10/31/21 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*10/29/21 15:20*	*10/31/21 02:39*	*1*
o-Terphenyl	*109*		*70 - 130*	*10/29/21 15:20*	*10/31/21 02:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**355**		4.99		mg/Kg			11/01/21 17:55	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1484-1	SW02	69 S1-	77
890-1484-1 MS	SW02	94	100
890-1484-1 MSD	SW02	76	82
890-1484-2	FS02	95	100
890-1484-3	FS03	80	77
890-1484-4	FS04	77	110
890-1484-5	FS05	82	82
890-1484-6	FS06	86	111
890-1484-7	FS07	67 S1-	78
890-1484-8	FS08	84	85
890-1484-9	FS09	95	102
890-1484-10	FS10	61 S1-	72
890-1484-11	SW03	84	98
890-1484-12	SW04	97	102
890-1484-13	FS11	87	115
LCS 880-10615/1-A	Lab Control Sample	96	103
LCSD 880-10615/2-A	Lab Control Sample Dup	94	103
MB 880-10614/5-A	Method Blank	99	105
MB 880-10615/5-A	Method Blank	97	106

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1484-1	SW02	110	111
890-1484-1 MS	SW02	93	87
890-1484-1 MSD	SW02	92	87
890-1484-2	FS02	99	107
890-1484-3	FS03	97	103
890-1484-4	FS04	96	102
890-1484-5	FS05	107	109
890-1484-6	FS06	108	112
890-1484-7	FS07	103	108
890-1484-8	FS08	103	108
890-1484-9	FS09	104	112
890-1484-10	FS10	121	129
890-1484-11	SW03	116	126
890-1484-12	SW04	109	117
890-1484-13	FS11	107	109
LCS 880-10979/2-A	Lab Control Sample	89	89
LCSD 880-10979/3-A	Lab Control Sample Dup	96	95
MB 880-10979/1-A	Method Blank	114	126

Surrogate Legend

1CO = 1-Chlorooctane

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10614/5-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10614

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/26/21 10:34	10/28/21 12:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/26/21 10:34	10/28/21 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/26/21 10:34*	*10/28/21 12:45*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/26/21 10:34*	*10/28/21 12:45*	*1*

Lab Sample ID: MB 880-10615/5-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10615

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/21 10:38	10/29/21 00:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/27/21 10:38	10/29/21 00:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*10/27/21 10:38*	*10/29/21 00:18*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/27/21 10:38*	*10/29/21 00:18*	*1*

Lab Sample ID: LCS 880-10615/1-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10615

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09333		mg/Kg		93	70 - 130		
Toluene			0.100	0.1037		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1057		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2092		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1145		mg/Kg		115	70 - 130		

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

Lab Sample ID: LCSD 880-10615/2-A
Matrix: Solid
Analysis Batch: 10827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10615

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09971		mg/Kg		100	70 - 130	7	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-10615/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10827 — **Prep Batch: 10615**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1086		mg/Kg		109	70 - 130	5	35
Ethylbenzene			0.100	0.1121		mg/Kg		112	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2225		mg/Kg		111	70 - 130	6	35
o-Xylene			0.100	0.1158		mg/Kg		116	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1484-1 MS — **Client Sample ID: SW02**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10827 — **Prep Batch: 10615**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.00205	F1	0.100	0.05500	F1	mg/Kg		53	70 - 130
Toluene	<0.00199	U F1 F2	0.100	0.05453	F1	mg/Kg		54	70 - 130
Ethylbenzene	<0.00199	U F1 F2	0.100	0.06169	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.1194	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1 F2	0.100	0.06899	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-1484-1 MSD — **Client Sample ID: SW02**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10827 — **Prep Batch: 10615**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00205	F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00199	U F1 F2	0.0998	0.02243	F1 F2	mg/Kg		22	70 - 130	83	35
Ethylbenzene	<0.00199	U F1 F2	0.0998	0.03041	F1 F2	mg/Kg		30	70 - 130	68	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.04465	F1 F2	mg/Kg		22	70 - 130	91	35
o-Xylene	<0.00199	U F1 F2	0.0998	0.02490	F1 F2	mg/Kg		25	70 - 130	94	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*

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

Lab Sample ID: MB 880-10979/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10998 — **Prep Batch: 10979**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 20:20	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

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

Lab Sample ID: MB 880-10979/1-A
Matrix: Solid
Analysis Batch: 10998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10979

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 20:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/29/21 15:20	10/30/21 20:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*10/29/21 15:20*	*10/30/21 20:20*	*1*
o-Terphenyl	*126*		*70 - 130*	*10/29/21 15:20*	*10/30/21 20:20*	*1*

Lab Sample ID: LCS 880-10979/2-A
Matrix: Solid
Analysis Batch: 10998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10979

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1089		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1150		mg/Kg		115	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: LCSD 880-10979/3-A
Matrix: Solid
Analysis Batch: 10998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10979

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1075		mg/Kg		108	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1162		mg/Kg		116	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: 890-1484-1 MS
Matrix: Solid
Analysis Batch: 10998

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 10979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	854.8		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	948.4		mg/Kg		92	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

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

Lab Sample ID: 890-1484-1 MSD
Matrix: Solid
Analysis Batch: 10998

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 10979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	844.5		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	956.9		mg/Kg		92	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10739/1-A
Matrix: Solid
Analysis Batch: 11104

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/21 14:07	1

Lab Sample ID: LCS 880-10739/2-A
Matrix: Solid
Analysis Batch: 11104

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	243.7		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-10739/3-A
Matrix: Solid
Analysis Batch: 11104

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	242.0		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-1484-4 MS
Matrix: Solid
Analysis Batch: 11104

Client Sample ID: FS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	428	F1	251	650.9	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 890-1484-4 MSD
Matrix: Solid
Analysis Batch: 11104

Client Sample ID: FS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	428	F1	251	656.0		mg/Kg		91	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

GC VOA

Prep Batch: 10614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-10614/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 10615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Total/NA	Solid	5035	
890-1484-2	FS02	Total/NA	Solid	5035	
890-1484-3	FS03	Total/NA	Solid	5035	
890-1484-4	FS04	Total/NA	Solid	5035	
890-1484-5	FS05	Total/NA	Solid	5035	
890-1484-6	FS06	Total/NA	Solid	5035	
890-1484-7	FS07	Total/NA	Solid	5035	
890-1484-8	FS08	Total/NA	Solid	5035	
890-1484-9	FS09	Total/NA	Solid	5035	
890-1484-10	FS10	Total/NA	Solid	5035	
890-1484-11	SW03	Total/NA	Solid	5035	
890-1484-12	SW04	Total/NA	Solid	5035	
890-1484-13	FS11	Total/NA	Solid	5035	
MB 880-10615/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-10615/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-10615/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1484-1 MS	SW02	Total/NA	Solid	5035	
890-1484-1 MSD	SW02	Total/NA	Solid	5035	

Analysis Batch: 10827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Total/NA	Solid	8021B	10615
890-1484-2	FS02	Total/NA	Solid	8021B	10615
890-1484-3	FS03	Total/NA	Solid	8021B	10615
890-1484-4	FS04	Total/NA	Solid	8021B	10615
890-1484-5	FS05	Total/NA	Solid	8021B	10615
890-1484-6	FS06	Total/NA	Solid	8021B	10615
890-1484-7	FS07	Total/NA	Solid	8021B	10615
890-1484-8	FS08	Total/NA	Solid	8021B	10615
890-1484-9	FS09	Total/NA	Solid	8021B	10615
890-1484-10	FS10	Total/NA	Solid	8021B	10615
890-1484-11	SW03	Total/NA	Solid	8021B	10615
890-1484-12	SW04	Total/NA	Solid	8021B	10615
890-1484-13	FS11	Total/NA	Solid	8021B	10615
MB 880-10614/5-A	Method Blank	Total/NA	Solid	8021B	10614
MB 880-10615/5-A	Method Blank	Total/NA	Solid	8021B	10615
LCS 880-10615/1-A	Lab Control Sample	Total/NA	Solid	8021B	10615
LCSD 880-10615/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	10615
890-1484-1 MS	SW02	Total/NA	Solid	8021B	10615
890-1484-1 MSD	SW02	Total/NA	Solid	8021B	10615

Analysis Batch: 11149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Total/NA	Solid	Total BTEX	
890-1484-2	FS02	Total/NA	Solid	Total BTEX	
890-1484-3	FS03	Total/NA	Solid	Total BTEX	
890-1484-4	FS04	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

GC VOA (Continued)

Analysis Batch: 11149 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-5	FS05	Total/NA	Solid	Total BTEX	
890-1484-6	FS06	Total/NA	Solid	Total BTEX	
890-1484-7	FS07	Total/NA	Solid	Total BTEX	
890-1484-8	FS08	Total/NA	Solid	Total BTEX	
890-1484-9	FS09	Total/NA	Solid	Total BTEX	
890-1484-10	FS10	Total/NA	Solid	Total BTEX	
890-1484-11	SW03	Total/NA	Solid	Total BTEX	
890-1484-12	SW04	Total/NA	Solid	Total BTEX	
890-1484-13	FS11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 10979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Total/NA	Solid	8015NM Prep	
890-1484-2	FS02	Total/NA	Solid	8015NM Prep	
890-1484-3	FS03	Total/NA	Solid	8015NM Prep	
890-1484-4	FS04	Total/NA	Solid	8015NM Prep	
890-1484-5	FS05	Total/NA	Solid	8015NM Prep	
890-1484-6	FS06	Total/NA	Solid	8015NM Prep	
890-1484-7	FS07	Total/NA	Solid	8015NM Prep	
890-1484-8	FS08	Total/NA	Solid	8015NM Prep	
890-1484-9	FS09	Total/NA	Solid	8015NM Prep	
890-1484-10	FS10	Total/NA	Solid	8015NM Prep	
890-1484-11	SW03	Total/NA	Solid	8015NM Prep	
890-1484-12	SW04	Total/NA	Solid	8015NM Prep	
890-1484-13	FS11	Total/NA	Solid	8015NM Prep	
MB 880-10979/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10979/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10979/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1484-1 MS	SW02	Total/NA	Solid	8015NM Prep	
890-1484-1 MSD	SW02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Total/NA	Solid	8015B NM	10979
890-1484-2	FS02	Total/NA	Solid	8015B NM	10979
890-1484-3	FS03	Total/NA	Solid	8015B NM	10979
890-1484-4	FS04	Total/NA	Solid	8015B NM	10979
890-1484-5	FS05	Total/NA	Solid	8015B NM	10979
890-1484-6	FS06	Total/NA	Solid	8015B NM	10979
890-1484-7	FS07	Total/NA	Solid	8015B NM	10979
890-1484-8	FS08	Total/NA	Solid	8015B NM	10979
890-1484-9	FS09	Total/NA	Solid	8015B NM	10979
890-1484-10	FS10	Total/NA	Solid	8015B NM	10979
890-1484-11	SW03	Total/NA	Solid	8015B NM	10979
890-1484-12	SW04	Total/NA	Solid	8015B NM	10979
890-1484-13	FS11	Total/NA	Solid	8015B NM	10979
MB 880-10979/1-A	Method Blank	Total/NA	Solid	8015B NM	10979
LCS 880-10979/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10979
LCSD 880-10979/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10979

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

GC Semi VOA (Continued)

Analysis Batch: 10998 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1 MS	SW02	Total/NA	Solid	8015B NM	10979
890-1484-1 MSD	SW02	Total/NA	Solid	8015B NM	10979

Analysis Batch: 11118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Total/NA	Solid	8015 NM	
890-1484-2	FS02	Total/NA	Solid	8015 NM	
890-1484-3	FS03	Total/NA	Solid	8015 NM	
890-1484-4	FS04	Total/NA	Solid	8015 NM	
890-1484-5	FS05	Total/NA	Solid	8015 NM	
890-1484-6	FS06	Total/NA	Solid	8015 NM	
890-1484-7	FS07	Total/NA	Solid	8015 NM	
890-1484-8	FS08	Total/NA	Solid	8015 NM	
890-1484-9	FS09	Total/NA	Solid	8015 NM	
890-1484-10	FS10	Total/NA	Solid	8015 NM	
890-1484-11	SW03	Total/NA	Solid	8015 NM	
890-1484-12	SW04	Total/NA	Solid	8015 NM	
890-1484-13	FS11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 10739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Soluble	Solid	DI Leach	
890-1484-2	FS02	Soluble	Solid	DI Leach	
890-1484-3	FS03	Soluble	Solid	DI Leach	
890-1484-4	FS04	Soluble	Solid	DI Leach	
890-1484-5	FS05	Soluble	Solid	DI Leach	
890-1484-6	FS06	Soluble	Solid	DI Leach	
890-1484-7	FS07	Soluble	Solid	DI Leach	
890-1484-8	FS08	Soluble	Solid	DI Leach	
890-1484-9	FS09	Soluble	Solid	DI Leach	
890-1484-10	FS10	Soluble	Solid	DI Leach	
890-1484-11	SW03	Soluble	Solid	DI Leach	
890-1484-12	SW04	Soluble	Solid	DI Leach	
890-1484-13	FS11	Soluble	Solid	DI Leach	
MB 880-10739/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10739/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10739/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1484-4 MS	FS04	Soluble	Solid	DI Leach	
890-1484-4 MSD	FS04	Soluble	Solid	DI Leach	

Analysis Batch: 11104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-1	SW02	Soluble	Solid	300.0	10739
890-1484-2	FS02	Soluble	Solid	300.0	10739
890-1484-3	FS03	Soluble	Solid	300.0	10739
890-1484-4	FS04	Soluble	Solid	300.0	10739
890-1484-5	FS05	Soluble	Solid	300.0	10739
890-1484-6	FS06	Soluble	Solid	300.0	10739
890-1484-7	FS07	Soluble	Solid	300.0	10739

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

HPLC/IC (Continued)

Analysis Batch: 11104 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1484-8	FS08	Soluble	Solid	300.0	10739
890-1484-9	FS09	Soluble	Solid	300.0	10739
890-1484-10	FS10	Soluble	Solid	300.0	10739
890-1484-11	SW03	Soluble	Solid	300.0	10739
890-1484-12	SW04	Soluble	Solid	300.0	10739
890-1484-13	FS11	Soluble	Solid	300.0	10739
MB 880-10739/1-A	Method Blank	Soluble	Solid	300.0	10739
LCS 880-10739/2-A	Lab Control Sample	Soluble	Solid	300.0	10739
LCSD 880-10739/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10739
890-1484-4 MS	FS04	Soluble	Solid	300.0	10739
890-1484-4 MSD	FS04	Soluble	Solid	300.0	10739

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: SW02

Lab Sample ID: 890-1484-1
Matrix: Solid
Date Collected: 10/25/21 10:00
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 00:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/30/21 21:24	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 16:05	CH	XEN MID

Client Sample ID: FS02

Lab Sample ID: 890-1484-2
Matrix: Solid
Date Collected: 10/25/21 11:45
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 01:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/30/21 22:28	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		5	11104	11/01/21 16:12	CH	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-1484-3
Matrix: Solid
Date Collected: 10/25/21 11:47
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 01:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/30/21 22:49	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		10	11104	11/01/21 16:19	CH	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-1484-4
Matrix: Solid
Date Collected: 10/25/21 11:49
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 01:47	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS04

Lab Sample ID: 890-1484-4
Matrix: Solid
Date Collected: 10/25/21 11:49
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/30/21 23:10	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 16:26	CH	XEN MID

Client Sample ID: FS05

Lab Sample ID: 890-1484-5
Matrix: Solid
Date Collected: 10/25/21 11:51
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 02:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/30/21 23:31	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 16:46	CH	XEN MID

Client Sample ID: FS06

Lab Sample ID: 890-1484-6
Matrix: Solid
Date Collected: 10/25/21 11:53
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 02:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/30/21 23:51	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 16:53	CH	XEN MID

Client Sample ID: FS07

Lab Sample ID: 890-1484-7
Matrix: Solid
Date Collected: 10/25/21 11:55
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 02:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 00:12	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Client Sample ID: FS07

Lab Sample ID: 890-1484-7
Matrix: Solid
Date Collected: 10/25/21 11:55
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:14	CH	XEN MID

Client Sample ID: FS08

Lab Sample ID: 890-1484-8
Matrix: Solid
Date Collected: 10/25/21 11:57
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 03:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 00:33	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:21	CH	XEN MID

Client Sample ID: FS09

Lab Sample ID: 890-1484-9
Matrix: Solid
Date Collected: 10/25/21 11:59
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 03:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 00:54	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:28	CH	XEN MID

Client Sample ID: FS10

Lab Sample ID: 890-1484-10
Matrix: Solid
Date Collected: 10/25/21 13:38
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 03:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 01:15	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:35	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1484-1
Project/Site: Ross Ranch 6 SDG: te012929159

Client Sample ID: SW03 Lab Sample ID: 890-1484-11

Date Collected: 10/25/21 14:01 **Matrix: Solid**
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 05:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 01:57	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:41	CH	XEN MID

Client Sample ID: SW04 Lab Sample ID: 890-1484-12

Date Collected: 10/25/21 14:05 **Matrix: Solid**
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 05:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 02:18	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:48	CH	XEN MID

Client Sample ID: FS11 Lab Sample ID: 890-1484-13

Date Collected: 10/25/21 13:40 **Matrix: Solid**
Date Received: 10/26/21 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10615	10/27/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10827	10/29/21 06:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 13:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10979	10/29/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	10998	10/31/21 02:39	AJ	XEN MID
Soluble	Leach	DI Leach			10739	10/27/21 12:26	SC	XEN MID
Soluble	Analysis	300.0		1	11104	11/01/21 17:55	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1484-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1484-1	SW02	Solid	10/25/21 10:00	10/26/21 08:25	4 - 0
890-1484-2	FS02	Solid	10/25/21 11:45	10/26/21 08:25	4
890-1484-3	FS03	Solid	10/25/21 11:47	10/26/21 08:25	4
890-1484-4	FS04	Solid	10/25/21 11:49	10/26/21 08:25	4
890-1484-5	FS05	Solid	10/25/21 11:51	10/26/21 08:25	4
890-1484-6	FS06	Solid	10/25/21 11:53	10/26/21 08:25	4
890-1484-7	FS07	Solid	10/25/21 11:55	10/26/21 08:25	4
890-1484-8	FS08	Solid	10/25/21 11:57	10/26/21 08:25	4
890-1484-9	FS09	Solid	10/25/21 11:59	10/26/21 08:25	4
890-1484-10	FS10	Solid	10/25/21 13:38	10/26/21 08:25	4
890-1484-11	SW03	Solid	10/25/21 14:01	10/26/21 08:25	4 - 0
890-1484-12	SW04	Solid	10/25/21 14:05	10/26/21 08:25	4 - 0
890-1484-13	FS11	Solid	10/25/21 13:40	10/26/21 08:25	4

Page 512 of 799

Chain of Custody

Work Order No: _____

XENCO LABORATORIES
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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

11/2/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.6 / 3.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-002		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-1484 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW02	S	10/25/2021	1000	0-4'	1	X	X	X	COMPOSITE
FS02	S	10/25/2021	1145	4'	1	X	X	X	
FS03	S	10/25/2021	1147	4'	1	X	X	X	
FS04	S	10/25/2021	1149	4'	1	X	X	X	
FS05	S	10/25/2021	1151	4'	1	X	X	X	
FS06	S	10/25/2021	1153	4'	1	X	X	X	
FS07	S	10/25/2021	1155	4'	1	X	X	X	
FS08	S	10/25/2021	1157	4'	1	X	X	X	
FS09	S	10/25/2021	1159	4'	1	X	X	X	
FS10	S	10/25/2021	1338	4'	1	X	X	X	

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Anna Byers	10/26/21 0810	2 Anna Byers	N. Cole	10/26/21 8:25
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Page 33 of 38

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 513 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	T-NM-002	Thermometer ID		
Received Intact:	(Yes) No	3.6 / 3.4		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SW03	S	10/25/2021	1401	0-4'	1	X	X	X	COMPOSITE
SW04	S	10/25/2021	1405	0-4'	1	X	X	X	
FS11	S	10/25/21	1340	4'	1	X	X	X	

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	[signature]	Anna Byers	10/26/21 0810	2 Anna Byers	[signature]	10/26/21 8:26
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-481 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1484-1
Address: 1211 W Florida Ave	Due Date Requested: 11/1/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
SW02 (890-1484-1)	10/25/21	10 00 Mountain		Solid			X	X	X	X	X	1	
FS02 (890-1484-2)	10/25/21	11 45 Mountain		Solid			X	X	X	X	X	1	
FS03 (890-1484-3)	10/25/21	11 47 Mountain		Solid			X	X	X	X	X	1	
FS04 (890-1484-4)	10/25/21	11 49 Mountain		Solid			X	X	X	X	X	1	
FS05 (890-1484-5)	10/25/21	11 51 Mountain		Solid			X	X	X	X	X	1	
FS06 (890-1484-6)	10/25/21	11 53 Mountain		Solid			X	X	X	X	X	1	
FS07 (890-1484-7)	10/25/21	11 55 Mountain		Solid			X	X	X	X	X	1	
FS08 (890-1484-8)	10/25/21	11 57 Mountain		Solid			X	X	X	X	X	1	
FS09 (890-1484-9)	10/25/21	11 59 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Clue Cuf 10.26.21	Date/Time:	Company	Received by: Kramer	Date/Time: 10.27.21	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time: 1112	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 2.6/2.7

Ver: 06/08/2021

Page 514 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/2/2021
Page 35 of 38
Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-481 2
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1484-1
Address: 1211 W Florida Ave	Due Date Requested: 11/1/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
FS10 (890-1484-10)	10/25/21	13 38 Mountain		Solid			X	X	X	X	X	1	
SW03 (890-1484-11)	10/25/21	14 01 Mountain		Solid			X	X	X	X	X	1	
SW04 (890-1484-12)	10/25/21	14 05 Mountain		Solid			X	X	X	X	X	1	
FS11 (890-1484-13)	10/25/21	13 40 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Chee Cuty 10:26:21			KRAMER	10.27 21	
Relinquished by	Date/Time	Company	Received by	Date/Time 1112	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Page 515 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/2/2021
Page 36 of 38
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1484-1
SDG Number: te012929159

Login Number: 1484
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1484-1
SDG Number: te012929159

Login Number: 1484
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 10/27/21 11:09 AM

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	2.6/2.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1487-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/3/2021 2:13:19 PM

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

LINKS
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Have a Question? Ask The Expert
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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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1487-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 15
Lab Chronicle 18
Certification Summary 20
Method Summary 21
Sample Summary 22
Chain of Custody 23
Receipt Checklists 25

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1487-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Job ID: 890-1487-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1487-1

Receipt
The samples were received on 10/27/2021 8:51 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-10940 and analytical batch 880-11208 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Client Sample ID: FS12

Lab Sample ID: 890-1487-1
Matrix: Solid
Date Collected: 10/26/21 13:33
Date Received: 10/27/21 08:51
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 22:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 22:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 22:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/28/21 10:38	10/28/21 22:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 22:58	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/28/21 10:38	10/28/21 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*10/28/21 10:38*	*10/28/21 22:58*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/28/21 10:38*	*10/28/21 22:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/01/21 14:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		11/01/21 14:28	11/02/21 03:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 03:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/01/21 14:28*	*11/02/21 03:25*	*1*
o-Terphenyl	*108*		*70 - 130*	*11/01/21 14:28*	*11/02/21 03:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**621**		5.00		mg/Kg			11/03/21 07:23	1

Client Sample ID: FS13

Lab Sample ID: 890-1487-2
Matrix: Solid
Date Collected: 10/26/21 13:35
Date Received: 10/27/21 08:51
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		10/28/21 10:38	10/28/21 23:19	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/28/21 10:38	10/28/21 23:19	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/28/21 10:38	10/28/21 23:19	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		10/28/21 10:38	10/28/21 23:19	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		10/28/21 10:38	10/28/21 23:19	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		10/28/21 10:38	10/28/21 23:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*10/28/21 10:38*	*10/28/21 23:19*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Client Sample ID: FS13

Lab Sample ID: 890-1487-2
Matrix: Solid
Date Collected: 10/26/21 13:35
Date Received: 10/27/21 08:51
Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*10/28/21 10:38*	*10/28/21 23:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			11/01/21 14:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		11/01/21 14:28	11/02/21 03:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/01/21 14:28	11/02/21 03:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/01/21 14:28	11/02/21 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*85*		*70 - 130*	*11/01/21 14:28*	*11/02/21 03:46*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/01/21 14:28*	*11/02/21 03:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1220**		4.99	mg/Kg			11/03/21 07:30	1

Client Sample ID: FS14

Lab Sample ID: 890-1487-3
Matrix: Solid
Date Collected: 10/26/21 13:37
Date Received: 10/27/21 08:51
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/28/21 10:38	10/28/21 23:39	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/28/21 10:38	10/28/21 23:39	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/28/21 10:38	10/28/21 23:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/28/21 10:38	10/28/21 23:39	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/28/21 10:38	10/28/21 23:39	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/28/21 10:38	10/28/21 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*10/28/21 10:38*	*10/28/21 23:39*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/28/21 10:38*	*10/28/21 23:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/01/21 14:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/01/21 12:47	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Client Sample ID: FS14

Lab Sample ID: 890-1487-3
Matrix: Solid
Date Collected: 10/26/21 13:37
Date Received: 10/27/21 08:51
Sample Depth: 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/01/21 14:28*	*11/02/21 04:07*	*1*
o-Terphenyl	*102*		*70 - 130*	*11/01/21 14:28*	*11/02/21 04:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1630**		24.8		mg/Kg			11/03/21 13:18	5

Client Sample ID: FS15

Lab Sample ID: 890-1487-4
Matrix: Solid
Date Collected: 10/26/21 13:39
Date Received: 10/27/21 08:51
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		10/28/21 10:38	10/29/21 00:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/28/21 10:38	10/29/21 00:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/28/21 10:38	10/29/21 00:00	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		10/28/21 10:38	10/29/21 00:00	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		10/28/21 10:38	10/29/21 00:00	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		10/28/21 10:38	10/29/21 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*10/28/21 10:38*	*10/29/21 00:00*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/28/21 10:38*	*10/29/21 00:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			11/01/21 14:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/01/21 14:28*	*11/02/21 04:28*	*1*
o-Terphenyl	*108*		*70 - 130*	*11/01/21 14:28*	*11/02/21 04:28*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Client Sample ID: FS15

Lab Sample ID: 890-1487-4
Matrix: Solid
Date Collected: 10/26/21 13:39
Date Received: 10/27/21 08:51
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		25.2		mg/Kg			11/03/21 13:25	5

Client Sample ID: SW06

Lab Sample ID: 890-1487-5
Matrix: Solid
Date Collected: 10/26/21 13:45
Date Received: 10/27/21 08:51
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/29/21 00:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/29/21 00:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/29/21 00:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/28/21 10:38	10/29/21 00:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/29/21 00:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/28/21 10:38	10/29/21 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*10/28/21 10:38*	*10/29/21 00:21*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*10/28/21 10:38*	*10/29/21 00:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/01/21 14:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 14:28	11/02/21 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*11/01/21 14:28*	*11/02/21 04:49*	*1*
o-Terphenyl	*101*		*70 - 130*	*11/01/21 14:28*	*11/02/21 04:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	503		4.97		mg/Kg			11/03/21 12:49	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1473-A-1-G MS	Matrix Spike	118	86
890-1473-A-1-H MSD	Matrix Spike Duplicate	136 S1+	132 S1+
890-1487-1	FS12	107	102
890-1487-2	FS13	104	100
890-1487-3	FS14	106	106
890-1487-4	FS15	98	101
890-1487-5	SW06	135 S1+	120
LCS 880-10706/1-A	Lab Control Sample	101	94
LCSD 880-10706/2-A	Lab Control Sample Dup	102	101
MB 880-10446/5-A	Method Blank	114	103
MB 880-10706/5-A	Method Blank	115	101

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-7562-A-17-I MS	Matrix Spike	87	88
880-7562-A-17-J MSD	Matrix Spike Duplicate	87	89
890-1487-1	FS12	96	108
890-1487-2	FS13	85	93
890-1487-3	FS14	93	102
890-1487-4	FS15	96	108
890-1487-5	SW06	92	101
LCS 880-11155/2-A	Lab Control Sample	81	92
LCSD 880-11155/3-A	Lab Control Sample Dup	76	86
MB 880-11155/1-A	Method Blank	92	105

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10446/5-A
Matrix: Solid
Analysis Batch: 10683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10446

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/25/21 14:32	10/28/21 09:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/25/21 14:32	10/28/21 09:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/25/21 14:32	10/28/21 09:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/25/21 14:32	10/28/21 09:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/25/21 14:32	10/28/21 09:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/25/21 14:32	10/28/21 09:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*10/25/21 14:32*	*10/28/21 09:51*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*10/25/21 14:32*	*10/28/21 09:51*	*1*

Lab Sample ID: MB 880-10706/5-A
Matrix: Solid
Analysis Batch: 10683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 10706

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 20:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 20:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 20:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/28/21 10:38	10/28/21 20:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/28/21 10:38	10/28/21 20:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/28/21 10:38	10/28/21 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/28/21 10:38*	*10/28/21 20:53*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/28/21 10:38*	*10/28/21 20:53*	*1*

Lab Sample ID: LCS 880-10706/1-A
Matrix: Solid
Analysis Batch: 10683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 10706

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07409		mg/Kg		74	70 - 130		
Toluene			0.100	0.07324		mg/Kg		73	70 - 130		
Ethylbenzene			0.100	0.08106		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1556		mg/Kg		78	70 - 130		
o-Xylene			0.100	0.08156		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-10706/2-A
Matrix: Solid
Analysis Batch: 10683

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 10706

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07695		mg/Kg		77	70 - 130	4	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-10706/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10683 — **Prep Batch: 10706**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.07281		mg/Kg		73	70 - 130	1	35
Ethylbenzene			0.100	0.08012		mg/Kg		80	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1549		mg/Kg		77	70 - 130	0	35
o-Xylene			0.100	0.08142		mg/Kg		81	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-1473-A-1-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10683 — **Prep Batch: 10706**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1	0.100	0.05982	F1	mg/Kg		60	70 - 130
Toluene	<0.00199	U F2 F1	0.100	0.07020		mg/Kg		70	70 - 130
Ethylbenzene	<0.00199	U F1	0.100	0.07684		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1517		mg/Kg		76	70 - 130
o-Xylene	<0.00199	U F1	0.100	0.07651		mg/Kg		77	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 890-1473-A-1-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 10683 — **Prep Batch: 10706**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.06272	F1	mg/Kg		63	70 - 130	5	35
Toluene	<0.00199	U F2 F1	0.0998	0.04675	F2 F1	mg/Kg		47	70 - 130	40	35
Ethylbenzene	<0.00199	U F1	0.0998	0.06485	F1	mg/Kg		65	70 - 130	17	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1310	F1	mg/Kg		66	70 - 130	15	35
o-Xylene	<0.00199	U F1	0.0998	0.06581	F1	mg/Kg		66	70 - 130	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*

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

Lab Sample ID: MB 880-11155/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11030 — **Prep Batch: 11155**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 14:28	11/01/21 21:24	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

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

Lab Sample ID: MB 880-11155/1-A
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11155

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 14:28	11/01/21 21:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 14:28	11/01/21 21:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*11/01/21 14:28*	*11/01/21 21:24*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/01/21 14:28*	*11/01/21 21:24*	*1*

Lab Sample ID: LCS 880-11155/2-A
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11155

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	786.0		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	812.9		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: LCSD 880-11155/3-A
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11155

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1123	*1	mg/Kg		112	70 - 130	35	20
Diesel Range Organics (Over C10-C28)			1000	856.1		mg/Kg		86	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 880-7562-A-17-I MS
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11155

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	997	980.3		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	784.9		mg/Kg		77	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

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

Lab Sample ID: 880-7562-A-17-J MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11030 — **Prep Batch: 11155**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	1000	983.7		mg/Kg		96	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	808.4		mg/Kg		79	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10939/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11180

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/03/21 03:55	1

Lab Sample ID: LCS 880-10939/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11180

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	262.0		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-10939/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11180

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	260.5		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1486-A-1-K MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11180

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	12.9		250	282.2		mg/Kg		108	90 - 110		

Lab Sample ID: 890-1486-A-1-L MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 11180

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12.9		250	285.2		mg/Kg		109	90 - 110	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-10940/1-A
Matrix: Solid
Analysis Batch: 11208

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/03/21 09:21	1

Lab Sample ID: LCS 880-10940/2-A
Matrix: Solid
Analysis Batch: 11208

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	257.6		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-10940/3-A
Matrix: Solid
Analysis Batch: 11208

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	260.1		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 880-7343-A-99-E MS
Matrix: Solid
Analysis Batch: 11208

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	8020	F1	2500	9106	F1	mg/Kg		43	90 - 110		

Lab Sample ID: 880-7343-A-99-F MSD
Matrix: Solid
Analysis Batch: 11208

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8020	F1	2500	9098	F1	mg/Kg		43	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

GC VOA

Prep Batch: 10446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-10446/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 10683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Total/NA	Solid	8021B	10706
890-1487-2	FS13	Total/NA	Solid	8021B	10706
890-1487-3	FS14	Total/NA	Solid	8021B	10706
890-1487-4	FS15	Total/NA	Solid	8021B	10706
890-1487-5	SW06	Total/NA	Solid	8021B	10706
MB 880-10446/5-A	Method Blank	Total/NA	Solid	8021B	10446
MB 880-10706/5-A	Method Blank	Total/NA	Solid	8021B	10706
LCS 880-10706/1-A	Lab Control Sample	Total/NA	Solid	8021B	10706
LCSD 880-10706/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	10706
890-1473-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	10706
890-1473-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	10706

Prep Batch: 10706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Total/NA	Solid	5035	
890-1487-2	FS13	Total/NA	Solid	5035	
890-1487-3	FS14	Total/NA	Solid	5035	
890-1487-4	FS15	Total/NA	Solid	5035	
890-1487-5	SW06	Total/NA	Solid	5035	
MB 880-10706/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-10706/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-10706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1473-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-1473-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Total/NA	Solid	Total BTEX	
890-1487-2	FS13	Total/NA	Solid	Total BTEX	
890-1487-3	FS14	Total/NA	Solid	Total BTEX	
890-1487-4	FS15	Total/NA	Solid	Total BTEX	
890-1487-5	SW06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 11030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Total/NA	Solid	8015B NM	11155
890-1487-2	FS13	Total/NA	Solid	8015B NM	11155
890-1487-3	FS14	Total/NA	Solid	8015B NM	11155
890-1487-4	FS15	Total/NA	Solid	8015B NM	11155
890-1487-5	SW06	Total/NA	Solid	8015B NM	11155
MB 880-11155/1-A	Method Blank	Total/NA	Solid	8015B NM	11155
LCS 880-11155/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11155
LCSD 880-11155/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11155
880-7562-A-17-I MS	Matrix Spike	Total/NA	Solid	8015B NM	11155
880-7562-A-17-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11155

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

GC Semi VOA

Analysis Batch: 11118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Total/NA	Solid	8015 NM	
890-1487-2	FS13	Total/NA	Solid	8015 NM	
890-1487-3	FS14	Total/NA	Solid	8015 NM	
890-1487-4	FS15	Total/NA	Solid	8015 NM	
890-1487-5	SW06	Total/NA	Solid	8015 NM	

Prep Batch: 11155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Total/NA	Solid	8015NM Prep	
890-1487-2	FS13	Total/NA	Solid	8015NM Prep	
890-1487-3	FS14	Total/NA	Solid	8015NM Prep	
890-1487-4	FS15	Total/NA	Solid	8015NM Prep	
890-1487-5	SW06	Total/NA	Solid	8015NM Prep	
MB 880-11155/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11155/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11155/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7562-A-17-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7562-A-17-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 10939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Soluble	Solid	DI Leach	
890-1487-2	FS13	Soluble	Solid	DI Leach	
MB 880-10939/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10939/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10939/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1486-A-1-K MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1486-A-1-L MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 10940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-3	FS14	Soluble	Solid	DI Leach	
890-1487-4	FS15	Soluble	Solid	DI Leach	
890-1487-5	SW06	Soluble	Solid	DI Leach	
MB 880-10940/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10940/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10940/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7343-A-99-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7343-A-99-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-1	FS12	Soluble	Solid	300.0	10939
890-1487-2	FS13	Soluble	Solid	300.0	10939
MB 880-10939/1-A	Method Blank	Soluble	Solid	300.0	10939
LCS 880-10939/2-A	Lab Control Sample	Soluble	Solid	300.0	10939
LCSD 880-10939/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10939
890-1486-A-1-K MS	Matrix Spike	Soluble	Solid	300.0	10939
890-1486-A-1-L MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10939

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

HPLC/IC

Analysis Batch: 11208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1487-3	FS14	Soluble	Solid	300.0	10940
890-1487-4	FS15	Soluble	Solid	300.0	10940
890-1487-5	SW06	Soluble	Solid	300.0	10940
MB 880-10940/1-A	Method Blank	Soluble	Solid	300.0	10940
LCS 880-10940/2-A	Lab Control Sample	Soluble	Solid	300.0	10940
LCSD 880-10940/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10940
880-7343-A-99-E MS	Matrix Spike	Soluble	Solid	300.0	10940
880-7343-A-99-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10940

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Client Sample ID: FS12

Lab Sample ID: 890-1487-1
Matrix: Solid
Date Collected: 10/26/21 13:33
Date Received: 10/27/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10706	10/28/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10683	10/28/21 22:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 14:01	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/02/21 03:25	AJ	XEN MID
Soluble	Leach	DI Leach			10939	10/29/21 13:22	CH	XEN MID
Soluble	Analysis	300.0		1	11180	11/03/21 07:23	CH	XEN MID

Client Sample ID: FS13

Lab Sample ID: 890-1487-2
Matrix: Solid
Date Collected: 10/26/21 13:35
Date Received: 10/27/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10706	10/28/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10683	10/28/21 23:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 14:01	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/02/21 03:46	AJ	XEN MID
Soluble	Leach	DI Leach			10939	10/29/21 13:22	CH	XEN MID
Soluble	Analysis	300.0		1	11180	11/03/21 07:30	CH	XEN MID

Client Sample ID: FS14

Lab Sample ID: 890-1487-3
Matrix: Solid
Date Collected: 10/26/21 13:37
Date Received: 10/27/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10706	10/28/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10683	10/28/21 23:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 14:01	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/02/21 04:07	AJ	XEN MID
Soluble	Leach	DI Leach			10940	10/29/21 13:25	CH	XEN MID
Soluble	Analysis	300.0		5	11208	11/03/21 13:18	CH	XEN MID

Client Sample ID: FS15

Lab Sample ID: 890-1487-4
Matrix: Solid
Date Collected: 10/26/21 13:39
Date Received: 10/27/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10706	10/28/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10683	10/29/21 00:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 14:01	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Client Sample ID: FS15

Lab Sample ID: 890-1487-4
Matrix: Solid
Date Collected: 10/26/21 13:39
Date Received: 10/27/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/02/21 04:28	AJ	XEN MID
Soluble	Leach	DI Leach			10940	10/29/21 13:25	CH	XEN MID
Soluble	Analysis	300.0		5	11208	11/03/21 13:25	CH	XEN MID

Client Sample ID: SW06

Lab Sample ID: 890-1487-5
Matrix: Solid
Date Collected: 10/26/21 13:45
Date Received: 10/27/21 08:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			10706	10/28/21 10:38	KL	XEN MID
Total/NA	Analysis	8021B		1	10683	10/29/21 00:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/01/21 14:01	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/02/21 04:49	AJ	XEN MID
Soluble	Leach	DI Leach			10940	10/29/21 13:25	CH	XEN MID
Soluble	Analysis	300.0		1	11208	11/03/21 12:49	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1487-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1487-1	FS12	Solid	10/26/21 13:33	10/27/21 08:51	4
890-1487-2	FS13	Solid	10/26/21 13:35	10/27/21 08:51	4
890-1487-3	FS14	Solid	10/26/21 13:37	10/27/21 08:51	4
890-1487-4	FS15	Solid	10/26/21 13:39	10/27/21 08:51	4
890-1487-5	SW06	Solid	10/26/21 13:45	10/27/21 08:51	0 - 4

Page 540 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.0/2.8	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS12	S	10/26/2021	1333	4'	1	X	X	X	COMPOSITE
FS13	S	10/26/2021	1335	4'	1	X	X	X	COMPOSITE
FS14	S	10/26/2021	1337	4'	1	X	X	X	COMPOSITE
FS15	S	10/26/2021	1339	4'	1	X	X	X	COMPOSITE
SW06	S	10/26/2021	1345	0-4'	1	X	X	X	COMPOSITE



Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10.27.21 0851	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 23 of 26

11/3/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 541 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-484 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1487-1
Address: 1211 W Florida Ave	Due Date Requested: 11/2/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8016MOD_NM/8016NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5036FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS12 (890-1487-1)	10/26/21	13 33 Mountain		Solid			X	X	X	X	X	1	
FS13 (890-1487-2)	10/26/21	13 35 Mountain		Solid			X	X	X	X	X	1	
FS14 (890-1487-3)	10/26/21	13 37 Mountain		Solid			X	X	X	X	X	1	
FS15 (890-1487-4)	10/26/21	13 39 Mountain		Solid			X	X	X	X	X	1	
SW06 (890-1487-5)	10/26/21	13 45 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Cloe Cuzp 10.27.21	Date/Time	Company	Received by: Kramer	Date/Time 10.28.21 1160	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 1 3/1 4

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1487-1
SDG Number: te012929159

Login Number: 1487
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1487-1
SDG Number: te012929159

Login Number: 1487
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 10/28/21 11:55 AM

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	1.3/1.4
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1499-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/8/2021 9:02:41 AM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch

Laboratory Job ID: 890-1499-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 5
Client Sample Results 7
Surrogate Summary 17
QC Sample Results 19
QC Association Summary 33
Lab Chronicle 39
Certification Summary 43
Method Summary 44
Sample Summary 45
Chain of Custody 46
Receipt Checklists 50

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1499-1
Project/Site: Ross Ranch SDG: te012929159

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Job ID: 890-1499-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1499-1

Receipt
The samples were received on 10/29/2021 10:16 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 1.8°C

GC VOA
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-11258 and analytical batch 880-11259 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SW13 (890-1499-10) and (MB 880-11258/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-1510-A-1-H). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11372 and analytical batch 880-11347 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.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11258 and analytical batch 880-11259 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.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-11258/5-A). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11018 and analytical batch 880-11030 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.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-11019 and analytical batch 880-11032 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-11222 and analytical batch 880-11195 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-11227 and analytical batch 880-11379 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Job ID: 890-1499-1 (Continued)

Laboratory: Eurofins Xenco, Carlsbad (Continued)

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: FS16

Lab Sample ID: 890-1499-1
Matrix: Solid
Date Collected: 10/28/21 12:44
Date Received: 10/29/21 10:16
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 18:34	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 18:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 18:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/01/21 08:33	11/01/21 18:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 18:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/01/21 08:33	11/01/21 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*11/01/21 08:33*	*11/01/21 18:34*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/01/21 08:33*	*11/01/21 18:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/02/21 11:18	11/03/21 05:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/02/21 11:18	11/03/21 05:57	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/02/21 11:18	11/03/21 05:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/02/21 11:18*	*11/03/21 05:57*	*1*
o-Terphenyl	*91*		*70 - 130*	*11/02/21 11:18*	*11/03/21 05:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**987**	**F1**	4.95		mg/Kg			11/06/21 05:38	1

Client Sample ID: FS17

Lab Sample ID: 890-1499-2
Matrix: Solid
Date Collected: 10/28/21 12:48
Date Received: 10/29/21 10:16
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 18:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 18:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 18:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/01/21 08:33	11/01/21 18:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 18:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/01/21 08:33	11/01/21 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/01/21 08:33*	*11/01/21 18:55*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: FS17

Lab Sample ID: 890-1499-2
Matrix: Solid
Date Collected: 10/28/21 12:48
Date Received: 10/29/21 10:16
Sample Depth: 4

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/01/21 08:33*	*11/01/21 18:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/01/21 08:28	11/01/21 12:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9	mg/Kg		11/01/21 08:28	11/01/21 12:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/01/21 08:28	11/01/21 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*11/01/21 08:28*	*11/01/21 12:37*	*1*
o-Terphenyl	*86*		*70 - 130*	*11/01/21 08:28*	*11/01/21 12:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1480**		24.8	mg/Kg			11/01/21 13:25	5

Client Sample ID: FS18

Lab Sample ID: 890-1499-3
Matrix: Solid
Date Collected: 10/28/21 08:34
Date Received: 10/29/21 10:16
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/01/21 08:33	11/01/21 19:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/01/21 08:33	11/01/21 19:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/01/21 08:33	11/01/21 19:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/01/21 08:33	11/01/21 19:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/01/21 08:33	11/01/21 19:15	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/01/21 08:33	11/01/21 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*11/01/21 08:33*	*11/01/21 19:15*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*11/01/21 08:33*	*11/01/21 19:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/01/21 12:47	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: FS18

Lab Sample ID: 890-1499-3
Matrix: Solid
Date Collected: 10/28/21 08:34
Date Received: 10/29/21 10:16
Sample Depth: 3

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/01/21 08:28	11/01/21 13:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/21 08:28	11/01/21 13:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 08:28	11/01/21 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*11/01/21 08:28*	*11/01/21 13:41*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/01/21 08:28*	*11/01/21 13:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**278**		4.95		mg/Kg			11/01/21 13:31	1

Client Sample ID: FS19

Lab Sample ID: 890-1499-4
Matrix: Solid
Date Collected: 10/28/21 12:52
Date Received: 10/29/21 10:16
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/01/21 08:33	11/01/21 19:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/01/21 08:33	11/01/21 19:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/01/21 08:33	11/01/21 19:35	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/01/21 08:33	11/01/21 19:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/01/21 08:33	11/01/21 19:35	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/01/21 08:33	11/01/21 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/01/21 08:33*	*11/01/21 19:35*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/01/21 08:33*	*11/01/21 19:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 14:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 14:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*11/01/21 08:28*	*11/01/21 14:03*	*1*
o-Terphenyl	*92*		*70 - 130*	*11/01/21 08:28*	*11/01/21 14:03*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: FS19

Lab Sample ID: 890-1499-4
Matrix: Solid
Date Collected: 10/28/21 12:52
Date Received: 10/29/21 10:16
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1400		5.04		mg/Kg			11/01/21 13:49	1

Client Sample ID: FS20

Lab Sample ID: 890-1499-5
Matrix: Solid
Date Collected: 10/28/21 12:56
Date Received: 10/29/21 10:16
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 19:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 19:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 19:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/01/21 08:33	11/01/21 19:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 19:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/01/21 08:33	11/01/21 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*11/01/21 08:33*	*11/01/21 19:56*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/01/21 08:33*	*11/01/21 19:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 14:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 14:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*11/01/21 08:28*	*11/01/21 14:24*	*1*
o-Terphenyl	*94*		*70 - 130*	*11/01/21 08:28*	*11/01/21 14:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2190		25.0		mg/Kg			11/01/21 13:55	5

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW09

Lab Sample ID: 890-1499-6
Matrix: Solid
Date Collected: 10/28/21 16:00
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 20:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 20:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 20:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/01/21 08:33	11/01/21 20:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/01/21 08:33	11/01/21 20:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/01/21 08:33	11/01/21 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/01/21 08:33*	*11/01/21 20:16*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/01/21 08:33*	*11/01/21 20:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/01/21 08:28	11/01/21 14:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/01/21 08:28	11/01/21 14:45	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/01/21 08:28	11/01/21 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*11/01/21 08:28*	*11/01/21 14:45*	*1*
o-Terphenyl	*92*		*70 - 130*	*11/01/21 08:28*	*11/01/21 14:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.1**		4.98		mg/Kg			11/01/21 14:01	1

Client Sample ID: SW10

Lab Sample ID: 890-1499-7
Matrix: Solid
Date Collected: 10/28/21 16:05
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/02/21 09:20	11/02/21 13:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/21 09:20	11/02/21 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*11/02/21 09:20*	*11/02/21 13:55*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW10

Lab Sample ID: 890-1499-7
Matrix: Solid
Date Collected: 10/28/21 16:05
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/02/21 09:20*	*11/02/21 13:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		11/01/21 08:29	11/01/21 12:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		11/01/21 08:29	11/01/21 12:37	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 08:29	11/01/21 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*73*		*70 - 130*	*11/01/21 08:29*	*11/01/21 12:37*	*1*
o-Terphenyl	*72*		*70 - 130*	*11/01/21 08:29*	*11/01/21 12:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.4**		4.99		mg/Kg			11/01/21 14:06	1

Client Sample ID: SW11

Lab Sample ID: 890-1499-8
Matrix: Solid
Date Collected: 10/28/21 16:10
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/02/21 09:20	11/02/21 18:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/02/21 09:20	11/02/21 18:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/02/21 09:20	11/02/21 18:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/02/21 09:20	11/02/21 18:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/02/21 09:20	11/02/21 18:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/02/21 09:20	11/02/21 18:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*11/02/21 09:20*	*11/02/21 18:21*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/02/21 09:20*	*11/02/21 18:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/21 12:47	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW11

Lab Sample ID: 890-1499-8
Matrix: Solid
Date Collected: 10/28/21 16:10
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		11/01/21 08:29	11/01/21 13:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/21 08:29	11/01/21 13:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/21 08:29	11/01/21 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*11/01/21 08:29*	*11/01/21 13:41*	*1*
o-Terphenyl	*84*		*70 - 130*	*11/01/21 08:29*	*11/01/21 13:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.4**		5.02		mg/Kg			11/01/21 14:12	1

Client Sample ID: SW12

Lab Sample ID: 890-1499-9
Matrix: Solid
Date Collected: 10/28/21 16:15
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 18:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 18:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 18:41	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/02/21 09:20	11/02/21 18:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 18:41	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/21 09:20	11/02/21 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*11/02/21 09:20*	*11/02/21 18:41*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/02/21 09:20*	*11/02/21 18:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		11/01/21 08:29	11/01/21 14:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 14:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*11/01/21 08:29*	*11/01/21 14:03*	*1*
o-Terphenyl	*77*		*70 - 130*	*11/01/21 08:29*	*11/01/21 14:03*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW12

Lab Sample ID: 890-1499-9
Matrix: Solid
Date Collected: 10/28/21 16:15
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		4.98		mg/Kg			11/01/21 14:18	1

Client Sample ID: SW13

Lab Sample ID: 890-1499-10
Matrix: Solid
Date Collected: 10/28/21 16:20
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:27	1
m-Xylene & p-Xylene	<0.00399	U F1	0.00399		mg/Kg		11/02/21 15:13	11/03/21 12:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:27	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/21 15:13	11/03/21 12:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/02/21 15:13*	*11/03/21 12:27*	*1*
1,4-Difluorobenzene (Surr)	*147*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 12:27*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		11/01/21 08:29	11/01/21 14:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 14:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*11/01/21 08:29*	*11/01/21 14:24*	*1*
o-Terphenyl	*70*		*70 - 130*	*11/01/21 08:29*	*11/01/21 14:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	194		4.95		mg/Kg			11/01/21 14:36	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW14

Lab Sample ID: 890-1499-11
Matrix: Solid
Date Collected: 10/28/21 16:25
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00394**		0.00202		mg/Kg		11/03/21 12:29	11/04/21 04:29	1
Toluene	**0.00309**		0.00202		mg/Kg		11/03/21 12:29	11/04/21 04:29	1
Ethylbenzene	**0.00319**		0.00202		mg/Kg		11/03/21 12:29	11/04/21 04:29	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/03/21 12:29	11/04/21 04:29	1
o-Xylene	**0.00712**		0.00202		mg/Kg		11/03/21 12:29	11/04/21 04:29	1
Xylenes, Total	**0.00712**		0.00403		mg/Kg		11/03/21 12:29	11/04/21 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*11/03/21 12:29*	*11/04/21 04:29*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*11/03/21 12:29*	*11/04/21 04:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0173**		0.00403		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 08:22	11/01/21 14:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:22	11/01/21 14:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:22	11/01/21 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*11/01/21 08:22*	*11/01/21 14:11*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/01/21 08:22*	*11/01/21 14:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**97.4**		5.04		mg/Kg			11/01/21 14:42	1

Client Sample ID: SW15

Lab Sample ID: 890-1499-12
Matrix: Solid
Date Collected: 10/28/21 16:30
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/04/21 04:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/04/21 04:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/04/21 04:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/03/21 12:29	11/04/21 04:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/04/21 04:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/03/21 12:29	11/04/21 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*11/03/21 12:29*	*11/04/21 04:49*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW15
Date Collected: 10/28/21 16:30
Date Received: 10/29/21 10:16
Sample Depth: 0 - 4

Lab Sample ID: 890-1499-12
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/03/21 12:29*	*11/04/21 04:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/03/21 12:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.4**		49.8		mg/Kg			11/01/21 12:47	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/01/21 08:22	11/01/21 14:31	1
Diesel Range Organics (Over C10-C28)	**69.4**		49.8		mg/Kg		11/01/21 08:22	11/01/21 14:31	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/01/21 08:22	11/01/21 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*82*		*70 - 130*	*11/01/21 08:22*	*11/01/21 14:31*	*1*
o-Terphenyl	*92*		*70 - 130*	*11/01/21 08:22*	*11/01/21 14:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**322**		5.05		mg/Kg			11/01/21 14:59	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1498-A-1-A MS	Matrix Spike	117	99
890-1498-A-1-B MSD	Matrix Spike Duplicate	119	103
890-1499-1	FS16	128	101
890-1499-2	FS17	116	99
890-1499-3	FS18	126	105
890-1499-4	FS19	123	96
890-1499-5	FS20	127	102
890-1499-6	SW09	98	101
890-1499-7	SW10	125	103
890-1499-7 MS	SW10	118	75
890-1499-7 MSD	SW10	109	95
890-1499-8	SW11	114	103
890-1499-9	SW12	113	100
890-1499-10	SW13	99	147 S1+
890-1499-10 MS	SW13	81	200 S1+
890-1499-10 MSD	SW13	87	250 S1+
890-1499-11	SW14	108	76
890-1499-12	SW15	113	99
890-1510-A-1-F MS	Matrix Spike	135 S1+	101
890-1510-A-1-G MSD	Matrix Spike Duplicate	98	98
LCS 880-11021/1-A	Lab Control Sample	121	103
LCS 880-11207/1-A	Lab Control Sample	110	107
LCS 880-11258/1-A	Lab Control Sample	84	137 S1+
LCS 880-11372/1-A	Lab Control Sample	114	100
LCSD 880-11021/2-A	Lab Control Sample Dup	110	100
LCSD 880-11207/2-A	Lab Control Sample Dup	115	90
LCSD 880-11258/2-A	Lab Control Sample Dup	77	177 S1+
LCSD 880-11372/2-A	Lab Control Sample Dup	109	106
MB 880-11021/5-A	Method Blank	106	101
MB 880-11207/5-A	Method Blank	107	71
MB 880-11258/5-A	Method Blank	54 S1-	182 S1+
MB 880-11348/5-A	Method Blank	112	97
MB 880-11372/5-A	Method Blank	118	99

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-7761-A-21-E MS	Matrix Spike	104	98
880-7761-A-21-F MSD	Matrix Spike Duplicate	109	101
890-1498-A-1-E MS	Matrix Spike	95	93
890-1498-A-1-F MSD	Matrix Spike Duplicate	93	92
890-1499-1	FS16	93	91
890-1499-2	FS17	78	86

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1499-1
Project/Site: Ross Ranch SDG: te012929159

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-1499-2 MS	FS17	75	76								
890-1499-2 MSD	FS17	85	86								
890-1499-3	FS18	85	96								
890-1499-4	FS19	82	92								
890-1499-5	FS20	83	94								
890-1499-6	SW09	82	92								
890-1499-7	SW10	73	72								
890-1499-7 MS	SW10	75	67 S1-								
890-1499-7 MSD	SW10	79	72								
890-1499-8	SW11	80	84								
890-1499-9	SW12	75	77								
890-1499-10	SW13	70	70								
890-1499-11	SW14	88	96								
890-1499-12	SW15	82	92								
LCS 880-11017/2-A	Lab Control Sample	86	88								
LCS 880-11018/2-A	Lab Control Sample	71	77								
LCS 880-11019/2-A	Lab Control Sample	75	73								
LCS 880-11222/2-A	Lab Control Sample	101	103								
LCSD 880-11017/3-A	Lab Control Sample Dup	104	108								
LCSD 880-11018/3-A	Lab Control Sample Dup	81	91								
LCSD 880-11019/3-A	Lab Control Sample Dup	75	74								
LCSD 880-11222/3-A	Lab Control Sample Dup	104	103								
MB 880-11017/1-A	Method Blank	98	112								
MB 880-11018/1-A	Method Blank	95	113								
MB 880-11019/1-A	Method Blank	93	96								
MB 880-11222/1-A	Method Blank	113	120								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11021/5-A
Matrix: Solid
Analysis Batch: 11022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11021

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 12:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 12:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/01/21 08:33	11/01/21 12:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/01/21 08:33	11/01/21 12:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/01/21 08:33	11/01/21 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*11/01/21 08:33*	*11/01/21 12:08*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/01/21 08:33*	*11/01/21 12:08*	*1*

Lab Sample ID: LCS 880-11021/1-A
Matrix: Solid
Analysis Batch: 11022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11021

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08284		mg/Kg		83	70 - 130		
Toluene			0.100	0.08405		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08962		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1923		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.09704		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-11021/2-A
Matrix: Solid
Analysis Batch: 11022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07647		mg/Kg		76	70 - 130	8	35
Toluene			0.100	0.07398		mg/Kg		74	70 - 130	13	35
Ethylbenzene			0.100	0.07944		mg/Kg		79	70 - 130	12	35
m-Xylene & p-Xylene			0.200	0.1712		mg/Kg		86	70 - 130	12	35
o-Xylene			0.100	0.08722		mg/Kg		87	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-1498-A-1-B MSD
Matrix: Solid
Analysis Batch: 11022

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11021

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.07206		mg/Kg					
Toluene	<0.00199	U	0.0998	0.07077		mg/Kg					

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: 890-1498-A-1-B MSD
Matrix: Solid
Analysis Batch: 11022

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11021

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00199	U	0.0998	0.07668		mg/Kg					
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1630		mg/Kg					
o-Xylene	<0.00199	U	0.0998	0.08213		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1498-A-1-A MS
Matrix: Solid
Analysis Batch: 11022

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-11207/5-A
Matrix: Solid
Analysis Batch: 11206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11207

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/21 09:20	11/02/21 13:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 09:20	11/02/21 13:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/21 09:20	11/02/21 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/02/21 09:20*	*11/02/21 13:33*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*11/02/21 09:20*	*11/02/21 13:33*	*1*

Lab Sample ID: LCS 880-11207/1-A
Matrix: Solid
Analysis Batch: 11206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11207

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09442		mg/Kg		94	70 - 130		
Toluene			0.100	0.08678		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08702		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene			0.200	0.1792		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.08930		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-11207/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11206 — **Prep Batch: 11207**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07480		mg/Kg		75	70 - 130	23	35
Toluene			0.100	0.08105		mg/Kg		81	70 - 130	7	35
Ethylbenzene			0.100	0.08482		mg/Kg		85	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1706		mg/Kg		85	70 - 130	5	35
o-Xylene			0.100	0.08564		mg/Kg		86	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 890-1499-7 MS — **Client Sample ID: SW10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11206 — **Prep Batch: 11207**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0998	0.08457		mg/Kg		85	70 - 130
Toluene	<0.00200	U	0.0998	0.08734		mg/Kg		88	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.1142		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2119		mg/Kg		106	70 - 130
o-Xylene	<0.00200	U	0.0998	0.1093		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: 890-1499-7 MSD — **Client Sample ID: SW10**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11206 — **Prep Batch: 11207**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.07639		mg/Kg		77	70 - 130	10	35
Toluene	<0.00200	U	0.0994	0.08546		mg/Kg		86	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.0994	0.08285		mg/Kg		83	70 - 130	32	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1698		mg/Kg		85	70 - 130	22	35
o-Xylene	<0.00200	U	0.0994	0.07911		mg/Kg		80	70 - 130	32	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-11258/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11259 — **Prep Batch: 11258**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: MB 880-11258/5-A
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11258

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/21 15:13	11/03/21 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*54*	*S1-*	*70 - 130*	*11/02/21 15:13*	*11/03/21 12:01*	*1*
1,4-Difluorobenzene (Surr)	*182*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 12:01*	*1*

Lab Sample ID: LCS 880-11258/1-A
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11258

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1087		mg/Kg		109	70 - 130		
Toluene			0.100	0.09796		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.08267		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1691		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.09889		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*137*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-11258/2-A
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11258

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1014		mg/Kg		101	70 - 130	7	35
Toluene			0.100	0.1035		mg/Kg		103	70 - 130	5	35
Ethylbenzene			0.100	0.09505		mg/Kg		95	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.1933		mg/Kg		97	70 - 130	13	35
o-Xylene			0.100	0.1102		mg/Kg		110	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*
1,4-Difluorobenzene (Surr)	*177*	*S1+*	*70 - 130*

Lab Sample ID: 890-1499-10 MS
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: SW13
Prep Type: Total/NA
Prep Batch: 11258

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.0994	0.09981		mg/Kg		100	70 - 130		
Toluene	<0.00200	U	0.0994	0.09309		mg/Kg		94	70 - 130		
Ethylbenzene	<0.00200	U	0.0994	0.07982		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene	<0.00399	U F1	0.199	0.1570		mg/Kg		79	70 - 130		
o-Xylene	<0.00200	U	0.0994	0.09041		mg/Kg		91	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		70 - 130
1,4-Difluorobenzene (Surr)	200	S1+	70 - 130

Lab Sample ID: 890-1499-10 MSD — **Client Sample ID: SW13**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11259 — **Prep Batch: 11258**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.08457		mg/Kg		84	70 - 130	17	35
Toluene	<0.00200	U	0.101	0.07932		mg/Kg		79	70 - 130	16	35
Ethylbenzene	<0.00200	U	0.101	0.07211		mg/Kg		72	70 - 130	10	35
m-Xylene & p-Xylene	<0.00399	U F1	0.202	0.1394	F1	mg/Kg		69	70 - 130	12	35
o-Xylene	<0.00200	U	0.101	0.08163		mg/Kg		81	70 - 130	10	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	250	S1+	70 - 130

Lab Sample ID: MB 880-11348/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11347 — **Prep Batch: 11348**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 09:17	11/03/21 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/21 09:17	11/03/21 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	11/03/21 09:17	11/03/21 12:28	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/03/21 09:17	11/03/21 12:28	1

Lab Sample ID: MB 880-11372/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11347 — **Prep Batch: 11372**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/21 12:29	11/03/21 23:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/21 12:29	11/03/21 23:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	11/03/21 12:29	11/03/21 23:41	1
1,4-Difluorobenzene (Surr)	99		70 - 130	11/03/21 12:29	11/03/21 23:41	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: LCS 880-11372/1-A
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11372

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09518		mg/Kg		95	70 - 130		
Toluene			0.100	0.08412		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08327		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1721		mg/Kg		86	70 - 130		
o-Xylene			0.100	0.09410		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-11372/2-A
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11372

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08659		mg/Kg		87	70 - 130	9	35
Toluene			0.100	0.07560		mg/Kg		76	70 - 130	11	35
Ethylbenzene			0.100	0.07731		mg/Kg		77	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1608		mg/Kg		80	70 - 130	7	35
o-Xylene			0.100	0.08457		mg/Kg		85	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1510-A-1-F MS
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11372

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.0262	F1 F2	0.0994	0.02080	F1	mg/Kg		-5	70 - 130		
Toluene	0.0320	F1	0.0994	0.02300	F1	mg/Kg		-9	70 - 130		
Ethylbenzene	0.0185	F1	0.0994	0.01568	F1	mg/Kg		-3	70 - 130		
m-Xylene & p-Xylene	0.0285	F1	0.199	0.04619	F1	mg/Kg		9	70 - 130		
o-Xylene	0.0174	F1 F2	0.0994	0.04126	F1	mg/Kg		24	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-1510-A-1-G MSD
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11372

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0262	F1 F2	0.0998	0.03171	F1 F2	mg/Kg		5	70 - 130	42	35
Toluene	0.0320	F1	0.0998	0.02610	F1	mg/Kg		-6	70 - 130	13	35
Ethylbenzene	0.0185	F1	0.0998	0.02107	F1	mg/Kg		3	70 - 130	29	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: 890-1510-A-1-G MSD
Matrix: Solid
Analysis Batch: 11347

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11372

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.0285	F1	0.200	0.04208	F1	mg/Kg		7	70 - 130	9	35
o-Xylene	0.0174	F1 F2	0.0998	0.02220	F1 F2	mg/Kg		5	70 - 130	60	35

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

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

Lab Sample ID: MB 880-11017/1-A
Matrix: Solid
Analysis Batch: 11034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11017

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 08:22	11/01/21 11:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:22	11/01/21 11:29	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:22	11/01/21 11:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/01/21 08:22*	*11/01/21 11:29*	*1*
o-Terphenyl	*112*		*70 - 130*	*11/01/21 08:22*	*11/01/21 11:29*	*1*

Lab Sample ID: LCS 880-11017/2-A
Matrix: Solid
Analysis Batch: 11034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11017

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1010		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	737.8		mg/Kg		74	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: LCSD 880-11017/3-A
Matrix: Solid
Analysis Batch: 11034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11017

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1140		mg/Kg		114	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	877.8		mg/Kg		88	70 - 130	17	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: LCSD 880-11017/3-A
Matrix: Solid
Analysis Batch: 11034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11017

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 890-1498-A-1-E MS
Matrix: Solid
Analysis Batch: 11034

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11017

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	997	1296		mg/Kg		130	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	894.2		mg/Kg		87	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-1498-A-1-F MSD
Matrix: Solid
Analysis Batch: 11034

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11017

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	1000	1510	F1	mg/Kg		151	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	891.0		mg/Kg		86	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: MB 880-11018/1-A
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11018

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 11:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 11:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:28	11/01/21 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	11/01/21 08:28	11/01/21 11:33	1
o-Terphenyl	113		70 - 130	11/01/21 08:28	11/01/21 11:33	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: LCS 880-11018/2-A
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11018

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1022		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	733.9		mg/Kg		73	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Lab Sample ID: LCSD 880-11018/3-A
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11018

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1013		mg/Kg		101	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	775.2		mg/Kg		78	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: 890-1499-2 MS
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: FS17
Prep Type: Total/NA
Prep Batch: 11018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	889.3		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	663.3	F1	mg/Kg		67	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*
o-Terphenyl	*76*		*70 - 130*

Lab Sample ID: 890-1499-2 MSD
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: FS17
Prep Type: Total/NA
Prep Batch: 11018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	940.4		mg/Kg		94	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	783.6		mg/Kg		78	70 - 130	17	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: 890-1499-2 MSD
Matrix: Solid
Analysis Batch: 11030

Client Sample ID: FS17
Prep Type: Total/NA
Prep Batch: 11018

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: MB 880-11019/1-A
Matrix: Solid
Analysis Batch: 11032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11019

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 11:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 11:33	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/21 08:29	11/01/21 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/01/21 08:29*	*11/01/21 11:33*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/01/21 08:29*	*11/01/21 11:33*	*1*

Lab Sample ID: LCS 880-11019/2-A
Matrix: Solid
Analysis Batch: 11032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11019

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	677.2	*-	mg/Kg		68	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	836.3		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: LCSD 880-11019/3-A
Matrix: Solid
Analysis Batch: 11032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11019

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	668.5	*-	mg/Kg		67	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	820.5		mg/Kg		82	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: 890-1499-7 MS
Matrix: Solid
Analysis Batch: 11032

Client Sample ID: SW10
Prep Type: Total/NA
Prep Batch: 11019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	997	700.3		mg/Kg		70	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	716.5	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*75*		*70 - 130*
o-Terphenyl	*67*	*S1-*	*70 - 130*

Lab Sample ID: 890-1499-7 MSD
Matrix: Solid
Analysis Batch: 11032

Client Sample ID: SW10
Prep Type: Total/NA
Prep Batch: 11019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	1000	822.9		mg/Kg		82	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	776.7		mg/Kg		74	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*72*		*70 - 130*

Lab Sample ID: MB 880-11222/1-A
Matrix: Solid
Analysis Batch: 11195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11222

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/02/21 11:18	11/02/21 20:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/02/21 11:18	11/02/21 20:41	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/02/21 11:18	11/02/21 20:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*11/02/21 11:18*	*11/02/21 20:41*	*1*
o-Terphenyl	*120*		*70 - 130*	*11/02/21 11:18*	*11/02/21 20:41*	*1*

Lab Sample ID: LCS 880-11222/2-A
Matrix: Solid
Analysis Batch: 11195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	889.0		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1228		mg/Kg		123	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Lab Sample ID: LCS 880-11222/2-A
Matrix: Solid
Analysis Batch: 11195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11222

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: LCSD 880-11222/3-A
Matrix: Solid
Analysis Batch: 11195

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11222

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	869.5		mg/Kg		87	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1149		mg/Kg		115	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: 880-7761-A-21-E MS
Matrix: Solid
Analysis Batch: 11195

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11222

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	997	1045		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1030		mg/Kg		101	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 880-7761-A-21-F MSD
Matrix: Solid
Analysis Batch: 11195

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	1000	1432	F1 F2	mg/Kg		141	70 - 130	31	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1091		mg/Kg		107	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11038/1-A
Matrix: Solid
Analysis Batch: 11110

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/21 12:38	1

Lab Sample ID: LCS 880-11038/2-A
Matrix: Solid
Analysis Batch: 11110

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	240.3		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-11038/3-A
Matrix: Solid
Analysis Batch: 11110

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	236.8		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 890-1499-9 MS
Matrix: Solid
Analysis Batch: 11110

Client Sample ID: SW12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	155		249	416.2		mg/Kg		105	90 - 110		

Lab Sample ID: 890-1499-9 MSD
Matrix: Solid
Analysis Batch: 11110

Client Sample ID: SW12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	155		249	409.1		mg/Kg		102	90 - 110	2	20

Lab Sample ID: MB 880-11227/1-A
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/06/21 05:15	1

Lab Sample ID: LCS 880-11227/2-A
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	266.7		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-11227/3-A
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	267.5		mg/Kg		107	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1499-1 MS
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: FS16
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	987	F1	248	1189	F1	mg/Kg		82	90 - 110		

Lab Sample ID: 890-1499-1 MSD
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: FS16
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	987	F1	248	1194	F1	mg/Kg		84	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

GC VOA

Prep Batch: 11021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Total/NA	Solid	5035	
890-1499-2	FS17	Total/NA	Solid	5035	
890-1499-3	FS18	Total/NA	Solid	5035	
890-1499-4	FS19	Total/NA	Solid	5035	
890-1499-5	FS20	Total/NA	Solid	5035	
890-1499-6	SW09	Total/NA	Solid	5035	
MB 880-11021/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11021/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11021/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1498-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Total/NA	Solid	8021B	11021
890-1499-2	FS17	Total/NA	Solid	8021B	11021
890-1499-3	FS18	Total/NA	Solid	8021B	11021
890-1499-4	FS19	Total/NA	Solid	8021B	11021
890-1499-5	FS20	Total/NA	Solid	8021B	11021
890-1499-6	SW09	Total/NA	Solid	8021B	11021
MB 880-11021/5-A	Method Blank	Total/NA	Solid	8021B	11021
LCS 880-11021/1-A	Lab Control Sample	Total/NA	Solid	8021B	11021
LCSD 880-11021/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11021
890-1498-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1498-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11021

Analysis Batch: 11149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Total/NA	Solid	Total BTEX	
890-1499-2	FS17	Total/NA	Solid	Total BTEX	
890-1499-3	FS18	Total/NA	Solid	Total BTEX	
890-1499-4	FS19	Total/NA	Solid	Total BTEX	
890-1499-5	FS20	Total/NA	Solid	Total BTEX	
890-1499-6	SW09	Total/NA	Solid	Total BTEX	
890-1499-7	SW10	Total/NA	Solid	Total BTEX	
890-1499-8	SW11	Total/NA	Solid	Total BTEX	
890-1499-9	SW12	Total/NA	Solid	Total BTEX	
890-1499-10	SW13	Total/NA	Solid	Total BTEX	
890-1499-11	SW14	Total/NA	Solid	Total BTEX	
890-1499-12	SW15	Total/NA	Solid	Total BTEX	

Analysis Batch: 11206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-7	SW10	Total/NA	Solid	8021B	11207
890-1499-8	SW11	Total/NA	Solid	8021B	11207
890-1499-9	SW12	Total/NA	Solid	8021B	11207
MB 880-11207/5-A	Method Blank	Total/NA	Solid	8021B	11207
LCS 880-11207/1-A	Lab Control Sample	Total/NA	Solid	8021B	11207
LCSD 880-11207/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11207
890-1499-7 MS	SW10	Total/NA	Solid	8021B	11207
890-1499-7 MSD	SW10	Total/NA	Solid	8021B	11207

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

GC VOA

Prep Batch: 11207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-7	SW10	Total/NA	Solid	5035	
890-1499-8	SW11	Total/NA	Solid	5035	
890-1499-9	SW12	Total/NA	Solid	5035	
MB 880-11207/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11207/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11207/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1499-7 MS	SW10	Total/NA	Solid	5035	
890-1499-7 MSD	SW10	Total/NA	Solid	5035	

Prep Batch: 11258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-10	SW13	Total/NA	Solid	5035	
MB 880-11258/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11258/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11258/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1499-10 MS	SW13	Total/NA	Solid	5035	
890-1499-10 MSD	SW13	Total/NA	Solid	5035	

Analysis Batch: 11259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-10	SW13	Total/NA	Solid	8021B	11258
MB 880-11258/5-A	Method Blank	Total/NA	Solid	8021B	11258
LCS 880-11258/1-A	Lab Control Sample	Total/NA	Solid	8021B	11258
LCSD 880-11258/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11258
890-1499-10 MS	SW13	Total/NA	Solid	8021B	11258
890-1499-10 MSD	SW13	Total/NA	Solid	8021B	11258

Analysis Batch: 11347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-11	SW14	Total/NA	Solid	8021B	11372
890-1499-12	SW15	Total/NA	Solid	8021B	11372
MB 880-11348/5-A	Method Blank	Total/NA	Solid	8021B	11348
MB 880-11372/5-A	Method Blank	Total/NA	Solid	8021B	11372
LCS 880-11372/1-A	Lab Control Sample	Total/NA	Solid	8021B	11372
LCSD 880-11372/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11372
890-1510-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	11372
890-1510-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11372

Prep Batch: 11348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11348/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-11	SW14	Total/NA	Solid	5035	
890-1499-12	SW15	Total/NA	Solid	5035	
MB 880-11372/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11372/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11372/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1510-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-1510-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

GC Semi VOA

Prep Batch: 11017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-11	SW14	Total/NA	Solid	8015NM Prep	
890-1499-12	SW15	Total/NA	Solid	8015NM Prep	
MB 880-11017/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11017/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11017/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1498-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1498-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 11018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-2	FS17	Total/NA	Solid	8015NM Prep	
890-1499-3	FS18	Total/NA	Solid	8015NM Prep	
890-1499-4	FS19	Total/NA	Solid	8015NM Prep	
890-1499-5	FS20	Total/NA	Solid	8015NM Prep	
890-1499-6	SW09	Total/NA	Solid	8015NM Prep	
MB 880-11018/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11018/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11018/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1499-2 MS	FS17	Total/NA	Solid	8015NM Prep	
890-1499-2 MSD	FS17	Total/NA	Solid	8015NM Prep	

Prep Batch: 11019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-7	SW10	Total/NA	Solid	8015NM Prep	
890-1499-8	SW11	Total/NA	Solid	8015NM Prep	
890-1499-9	SW12	Total/NA	Solid	8015NM Prep	
890-1499-10	SW13	Total/NA	Solid	8015NM Prep	
MB 880-11019/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11019/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11019/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1499-7 MS	SW10	Total/NA	Solid	8015NM Prep	
890-1499-7 MSD	SW10	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-2	FS17	Total/NA	Solid	8015B NM	11018
890-1499-3	FS18	Total/NA	Solid	8015B NM	11018
890-1499-4	FS19	Total/NA	Solid	8015B NM	11018
890-1499-5	FS20	Total/NA	Solid	8015B NM	11018
890-1499-6	SW09	Total/NA	Solid	8015B NM	11018
MB 880-11018/1-A	Method Blank	Total/NA	Solid	8015B NM	11018
LCS 880-11018/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11018
LCSD 880-11018/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11018
890-1499-2 MS	FS17	Total/NA	Solid	8015B NM	11018
890-1499-2 MSD	FS17	Total/NA	Solid	8015B NM	11018

Analysis Batch: 11032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-7	SW10	Total/NA	Solid	8015B NM	11019
890-1499-8	SW11	Total/NA	Solid	8015B NM	11019
890-1499-9	SW12	Total/NA	Solid	8015B NM	11019

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

GC Semi VOA (Continued)

Analysis Batch: 11032 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-10	SW13	Total/NA	Solid	8015B NM	11019
MB 880-11019/1-A	Method Blank	Total/NA	Solid	8015B NM	11019
LCS 880-11019/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11019
LCSD 880-11019/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11019
890-1499-7 MS	SW10	Total/NA	Solid	8015B NM	11019
890-1499-7 MSD	SW10	Total/NA	Solid	8015B NM	11019

Analysis Batch: 11034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-11	SW14	Total/NA	Solid	8015B NM	11017
890-1499-12	SW15	Total/NA	Solid	8015B NM	11017
MB 880-11017/1-A	Method Blank	Total/NA	Solid	8015B NM	11017
LCS 880-11017/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11017
LCSD 880-11017/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11017
890-1498-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	11017
890-1498-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11017

Analysis Batch: 11118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Total/NA	Solid	8015 NM	
890-1499-2	FS17	Total/NA	Solid	8015 NM	
890-1499-3	FS18	Total/NA	Solid	8015 NM	
890-1499-4	FS19	Total/NA	Solid	8015 NM	
890-1499-5	FS20	Total/NA	Solid	8015 NM	
890-1499-6	SW09	Total/NA	Solid	8015 NM	
890-1499-7	SW10	Total/NA	Solid	8015 NM	
890-1499-8	SW11	Total/NA	Solid	8015 NM	
890-1499-9	SW12	Total/NA	Solid	8015 NM	
890-1499-10	SW13	Total/NA	Solid	8015 NM	
890-1499-11	SW14	Total/NA	Solid	8015 NM	
890-1499-12	SW15	Total/NA	Solid	8015 NM	

Analysis Batch: 11195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Total/NA	Solid	8015B NM	11222
MB 880-11222/1-A	Method Blank	Total/NA	Solid	8015B NM	11222
LCS 880-11222/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11222
LCSD 880-11222/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11222
880-7761-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	11222
880-7761-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11222

Prep Batch: 11222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Total/NA	Solid	8015NM Prep	
MB 880-11222/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11222/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11222/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7761-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7761-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

HPLC/IC

Leach Batch: 11038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-2	FS17	Soluble	Solid	DI Leach	
890-1499-3	FS18	Soluble	Solid	DI Leach	
890-1499-4	FS19	Soluble	Solid	DI Leach	
890-1499-5	FS20	Soluble	Solid	DI Leach	
890-1499-6	SW09	Soluble	Solid	DI Leach	
890-1499-7	SW10	Soluble	Solid	DI Leach	
890-1499-8	SW11	Soluble	Solid	DI Leach	
890-1499-9	SW12	Soluble	Solid	DI Leach	
890-1499-10	SW13	Soluble	Solid	DI Leach	
890-1499-11	SW14	Soluble	Solid	DI Leach	
890-1499-12	SW15	Soluble	Solid	DI Leach	
MB 880-11038/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11038/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11038/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1499-9 MS	SW12	Soluble	Solid	DI Leach	
890-1499-9 MSD	SW12	Soluble	Solid	DI Leach	

Analysis Batch: 11110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-2	FS17	Soluble	Solid	300.0	11038
890-1499-3	FS18	Soluble	Solid	300.0	11038
890-1499-4	FS19	Soluble	Solid	300.0	11038
890-1499-5	FS20	Soluble	Solid	300.0	11038
890-1499-6	SW09	Soluble	Solid	300.0	11038
890-1499-7	SW10	Soluble	Solid	300.0	11038
890-1499-8	SW11	Soluble	Solid	300.0	11038
890-1499-9	SW12	Soluble	Solid	300.0	11038
890-1499-10	SW13	Soluble	Solid	300.0	11038
890-1499-11	SW14	Soluble	Solid	300.0	11038
890-1499-12	SW15	Soluble	Solid	300.0	11038
MB 880-11038/1-A	Method Blank	Soluble	Solid	300.0	11038
LCS 880-11038/2-A	Lab Control Sample	Soluble	Solid	300.0	11038
LCSD 880-11038/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11038
890-1499-9 MS	SW12	Soluble	Solid	300.0	11038
890-1499-9 MSD	SW12	Soluble	Solid	300.0	11038

Leach Batch: 11227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Soluble	Solid	DI Leach	
MB 880-11227/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11227/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11227/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1499-1 MS	FS16	Soluble	Solid	DI Leach	
890-1499-1 MSD	FS16	Soluble	Solid	DI Leach	

Analysis Batch: 11379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1	FS16	Soluble	Solid	300.0	11227
MB 880-11227/1-A	Method Blank	Soluble	Solid	300.0	11227
LCS 880-11227/2-A	Lab Control Sample	Soluble	Solid	300.0	11227
LCSD 880-11227/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11227

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

HPLC/IC (Continued)

Analysis Batch: 11379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1499-1 MS	FS16	Soluble	Solid	300.0	11227
890-1499-1 MSD	FS16	Soluble	Solid	300.0	11227

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: FS16

Lab Sample ID: 890-1499-1
Matrix: Solid
Date Collected: 10/28/21 12:44
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11021	11/01/21 08:33	KL	XEN MID
Total/NA	Analysis	8021B		1	11022	11/01/21 18:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11222	11/02/21 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11195	11/03/21 05:57	AJ	XEN MID
Soluble	Leach	DI Leach			11227	11/02/21 11:52	CH	XEN MID
Soluble	Analysis	300.0		1	11379	11/06/21 05:38	CH	XEN MID

Client Sample ID: FS17

Lab Sample ID: 890-1499-2
Matrix: Solid
Date Collected: 10/28/21 12:48
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11021	11/01/21 08:33	KL	XEN MID
Total/NA	Analysis	8021B		1	11022	11/01/21 18:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11018	11/01/21 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/01/21 12:37	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		5	11110	11/01/21 13:25	CH	XEN MID

Client Sample ID: FS18

Lab Sample ID: 890-1499-3
Matrix: Solid
Date Collected: 10/28/21 08:34
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11021	11/01/21 08:33	KL	XEN MID
Total/NA	Analysis	8021B		1	11022	11/01/21 19:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11018	11/01/21 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/01/21 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 13:31	CH	XEN MID

Client Sample ID: FS19

Lab Sample ID: 890-1499-4
Matrix: Solid
Date Collected: 10/28/21 12:52
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11021	11/01/21 08:33	KL	XEN MID
Total/NA	Analysis	8021B		1	11022	11/01/21 19:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: FS19

Lab Sample ID: 890-1499-4
Matrix: Solid
Date Collected: 10/28/21 12:52
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11018	11/01/21 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/01/21 14:03	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 13:49	CH	XEN MID

Client Sample ID: FS20

Lab Sample ID: 890-1499-5
Matrix: Solid
Date Collected: 10/28/21 12:56
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11021	11/01/21 08:33	KL	XEN MID
Total/NA	Analysis	8021B		1	11022	11/01/21 19:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11018	11/01/21 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/01/21 14:24	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		5	11110	11/01/21 13:55	CH	XEN MID

Client Sample ID: SW09

Lab Sample ID: 890-1499-6
Matrix: Solid
Date Collected: 10/28/21 16:00
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11021	11/01/21 08:33	KL	XEN MID
Total/NA	Analysis	8021B		1	11022	11/01/21 20:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11018	11/01/21 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11030	11/01/21 14:45	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:01	CH	XEN MID

Client Sample ID: SW10

Lab Sample ID: 890-1499-7
Matrix: Solid
Date Collected: 10/28/21 16:05
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11207	11/02/21 09:20	MR	XEN MID
Total/NA	Analysis	8021B		1	11206	11/02/21 13:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11019	11/01/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11032	11/01/21 12:37	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1499-1
Project/Site: Ross Ranch SDG: te012929159

Client Sample ID: SW10 Lab Sample ID: 890-1499-7

Date Collected: 10/28/21 16:05 **Matrix: Solid**
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:06	CH	XEN MID

Client Sample ID: SW11 Lab Sample ID: 890-1499-8

Date Collected: 10/28/21 16:10 **Matrix: Solid**
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11207	11/02/21 09:20	MR	XEN MID
Total/NA	Analysis	8021B		1	11206	11/02/21 18:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11019	11/01/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11032	11/01/21 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:12	CH	XEN MID

Client Sample ID: SW12 Lab Sample ID: 890-1499-9

Date Collected: 10/28/21 16:15 **Matrix: Solid**
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11207	11/02/21 09:20	MR	XEN MID
Total/NA	Analysis	8021B		1	11206	11/02/21 18:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11019	11/01/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11032	11/01/21 14:03	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:18	CH	XEN MID

Client Sample ID: SW13 Lab Sample ID: 890-1499-10

Date Collected: 10/28/21 16:20 **Matrix: Solid**
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		1	11259	11/03/21 12:27	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11019	11/01/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11032	11/01/21 14:24	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:36	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Client Sample ID: SW14

Lab Sample ID: 890-1499-11
Matrix: Solid
Date Collected: 10/28/21 16:25
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	11347	11/04/21 04:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11017	11/01/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11034	11/01/21 14:11	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:42	CH	XEN MID

Client Sample ID: SW15

Lab Sample ID: 890-1499-12
Matrix: Solid
Date Collected: 10/28/21 16:30
Date Received: 10/29/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11372	11/03/21 12:29	MR	XEN MID
Total/NA	Analysis	8021B		1	11347	11/04/21 04:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11149	11/03/21 12:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11118	11/01/21 12:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11017	11/01/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11034	11/01/21 14:31	AJ	XEN MID
Soluble	Leach	DI Leach			11038	11/01/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	11110	11/01/21 14:59	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1499-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1499-1	FS16	Solid	10/28/21 12:44	10/29/21 10:16	4
890-1499-2	FS17	Solid	10/28/21 12:48	10/29/21 10:16	4
890-1499-3	FS18	Solid	10/28/21 08:34	10/29/21 10:16	3
890-1499-4	FS19	Solid	10/28/21 12:52	10/29/21 10:16	4
890-1499-5	FS20	Solid	10/28/21 12:56	10/29/21 10:16	4
890-1499-6	SW09	Solid	10/28/21 16:00	10/29/21 10:16	0 - 4
890-1499-7	SW10	Solid	10/28/21 16:05	10/29/21 10:16	0 - 4
890-1499-8	SW11	Solid	10/28/21 16:10	10/29/21 10:16	0 - 4
890-1499-9	SW12	Solid	10/28/21 16:15	10/29/21 10:16	0 - 4
890-1499-10	SW13	Solid	10/28/21 16:20	10/29/21 10:16	0 - 4
890-1499-11	SW14	Solid	10/28/21 16:25	10/29/21 10:16	0 - 4
890-1499-12	SW15	Solid	10/28/21 16:30	10/29/21 10:16	0 - 4

Page 589 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.0/1.8	Thermometer ID	IR M-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

890-1499 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
FS16	S	10/28/2021	1244	4'	1	X	X	X	COMPOSITE
FS17	S	10/28/2021	1248	4'	1	X	X	X	COMPOSITE
FS18	S	10/28/2021	834	LDV ~~4~~ 3'	1	X	X	X	COMPOSITE
FS19	S	10/28/2021	1252	4'	1	X	X	X	COMPOSITE
FS20	S	10/28/2021	1256	4'	1	X	X	X	COMPOSITE
SW09	S	10/28/2021	1600	0-4'	1	X	X	X	COMPOSITE
SW10	S	10/28/2021	1605	0-4'	1	X	X	X	COMPOSITE
SW11	S	10/28/2021	1610	0-4'	1	X	X	X	COMPOSITE
SW12	S	10/28/2021	1615	0-4'	1	X	X	X	COMPOSITE
SW13	S	10/28/2021	1620	0-4'	1	X	X	X	COMPOSITE

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	10:29.21 1011	10/29/21 1015	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM
Released to Imaging: 4/8/2022 2:26:11 PM

11/8/2021

Page 590 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
	Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):		Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	~~Yes~~ No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW14	S	10/28/2021	1625	0-4'	1	X	X	X	COMPOSITE
SW15	S	10/28/2021	1630	0-4'	1	X	X	X	COMPOSITE

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	10.29.21 1015	10/29/21 1015	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM
Released to Imaging: 4/8/2022 2:26:11 PM
11/8/2021
Page 47 of 51

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone. 575-988-3199 Fax. 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-488 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1499-1
Address: 1211 W Florida Ave,	Due Date Requested: 11/1/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #			
Email	WO #:			
Project Name: Ross Ranch	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS16 (890-1499-1)	10/28/21	12 44 Mountain		Solid			X	X	X	X	X	1	
FS17 (890-1499-2)	10/28/21	12.48 Mountain		Solid			X	X	X	X	X	1	
FS18 (890-1499-3)	10/28/21	08 34 Mountain		Solid			X	X	X	X	X	1	
FS19 (890-1499-4)	10/28/21	12 52 Mountain		Solid			X	X	X	X	X	1	
FS20 (890-1499-5)	10/28/21	12 56 Mountain		Solid			X	X	X	X	X	1	
SW09 (890-1499-6)	10/28/21	16 00 Mountain		Solid			X	X	X	X	X	1	
SW10 (890-1499-7)	10/28/21	16 05 Mountain		Solid			X	X	X	X	X	1	
SW11 (890-1499-8)	10/28/21	16 10 Mountain		Solid			X	X	X	X	X	1	
SW12 (890-1499-9)	10/28/21	16 15 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature] 10:29			[signature]	11.1.21	
2						
3						

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 2.6/27

Ver: 06/08/2021

Page 591 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/8/2021
Page 48 of 51
Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax. 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-488 2
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1499-1
Address: 1211 W Florida Ave	Due Date Requested: 11/1/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #			
Email	WO #			
Project Name: Ross Ranch	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
SW13 (890-1499-10)	10/28/21	16 20 Mountain		Solid			X	X	X	X	X	1	
SW14 (890-1499-11)	10/28/21	16 25 Mountain		Solid			X	X	X	X	X	1	
SW15 (890-1499-12)	10/28/21	16 30 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM
Released to Imaging: 4/8/2022 2:26:11 PM
11/8/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1499-1
SDG Number: te012929159

Login Number: 1499
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1499-1
SDG Number: te012929159

Login Number: 1499
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/01/21 08:46 AM

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	2.6/2.7
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1506-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/8/2021 4:27:34 PM

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

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1506-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 15
Lab Chronicle 18
Certification Summary 20
Method Summary 21
Sample Summary 22
Chain of Custody 23
Receipt Checklists 25

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1506-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Job ID: 890-1506-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1506-1

Receipt
The samples were received on 11/1/2021 10:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: FS21 (890-1506-1), FS22 (890-1506-2), SW16 (890-1506-3), SW17 (890-1506-4) and SW18 (890-1506-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11258 and analytical batch 880-11259 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.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-11258/5-A) and (890-1499-A-10-F). 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
Method 300_ORGFM_28D: The laboratory control sample (LCS) associated with preparation batch 880-11235 and analytical batch 880-11380 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Client Sample ID: FS21

Lab Sample ID: 890-1506-1
Matrix: Solid
Date Collected: 10/29/21 08:24
Date Received: 11/01/21 10:37
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:08	1
Ethylbenzene	**0.00872**		0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/02/21 15:13	11/03/21 18:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/02/21 15:13	11/03/21 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*11/02/21 15:13*	*11/03/21 18:08*	*1*
1,4-Difluorobenzene (Surr)	*188*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 18:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00872**		0.00402		mg/Kg			11/08/21 17:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/08/21 15:54	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 16:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 16:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*11/02/21 15:51*	*11/03/21 16:42*	*1*
o-Terphenyl	*109*		*70 - 130*	*11/02/21 15:51*	*11/03/21 16:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1390**		5.04		mg/Kg			11/06/21 14:51	1

Client Sample ID: FS22

Lab Sample ID: 890-1506-2
Matrix: Solid
Date Collected: 10/29/21 08:35
Date Received: 11/01/21 10:37
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:34	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:34	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/02/21 15:13	11/03/21 18:34	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/02/21 15:13	11/03/21 18:34	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/02/21 15:13	11/03/21 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*11/02/21 15:13*	*11/03/21 18:34*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Client Sample ID: FS22

Lab Sample ID: 890-1506-2
Matrix: Solid
Date Collected: 10/29/21 08:35
Date Received: 11/01/21 10:37
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*216*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 18:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/08/21 17:06	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/08/21 15:54	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 17:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 17:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 17:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*94*		*70 - 130*	*11/02/21 15:51*	*11/03/21 17:02*	*1*
o-Terphenyl	*100*		*70 - 130*	*11/02/21 15:51*	*11/03/21 17:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**866**	*-	4.97		mg/Kg			11/07/21 00:05	1

Client Sample ID: SW16

Lab Sample ID: 890-1506-3
Matrix: Solid
Date Collected: 10/29/21 12:56
Date Received: 11/01/21 10:37
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/02/21 15:13	11/03/21 19:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:01	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/02/21 15:13	11/03/21 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*11/02/21 15:13*	*11/03/21 19:01*	*1*
1,4-Difluorobenzene (Surr)	*215*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 19:01*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/08/21 17:06	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/08/21 15:54	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Client Sample ID: SW16

Lab Sample ID: 890-1506-3
Matrix: Solid
Date Collected: 10/29/21 12:56
Date Received: 11/01/21 10:37
Sample Depth: 0 - 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 17:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 17:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*11/02/21 15:51*	*11/03/21 17:22*	*1*
o-Terphenyl	*103*		*70 - 130*	*11/02/21 15:51*	*11/03/21 17:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.0**	*-	4.95		mg/Kg			11/07/21 00:13	1

Client Sample ID: SW17

Lab Sample ID: 890-1506-4
Matrix: Solid
Date Collected: 10/29/21 12:18
Date Received: 11/01/21 10:37
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/02/21 15:13	11/03/21 19:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 19:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/21 15:13	11/03/21 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*11/02/21 15:13*	*11/03/21 19:28*	*1*
1,4-Difluorobenzene (Surr)	*217*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 19:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/08/21 17:06	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/08/21 15:54	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/02/21 15:51	11/03/21 17:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/02/21 15:51	11/03/21 17:42	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/02/21 15:51	11/03/21 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/02/21 15:51*	*11/03/21 17:42*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/02/21 15:51*	*11/03/21 17:42*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Client Sample ID: SW17

Lab Sample ID: 890-1506-4
Matrix: Solid
Date Collected: 10/29/21 12:18
Date Received: 11/01/21 10:37
Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.6	*-	5.04		mg/Kg			11/07/21 00:20	1

Client Sample ID: SW18

Lab Sample ID: 890-1506-5
Matrix: Solid
Date Collected: 10/29/21 12:20
Date Received: 11/01/21 10:37
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/02/21 15:13	11/03/21 19:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/02/21 15:13	11/03/21 19:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/02/21 15:13	11/03/21 19:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/02/21 15:13	11/03/21 19:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/02/21 15:13	11/03/21 19:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/02/21 15:13	11/03/21 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*11/02/21 15:13*	*11/03/21 19:56*	*1*
1,4-Difluorobenzene (Surr)	*205*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 19:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/08/21 17:06	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/08/21 15:54	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 18:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 18:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*11/02/21 15:51*	*11/03/21 18:03*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/02/21 15:51*	*11/03/21 18:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.1	*-	4.99		mg/Kg			11/07/21 00:27	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1499-A-10-D MS	Matrix Spike	81	200 S1+
890-1499-A-10-E MSD	Matrix Spike Duplicate	87	250 S1+
890-1506-1	FS21	109	188 S1+
890-1506-2	FS22	100	216 S1+
890-1506-3	SW16	85	215 S1+
890-1506-4	SW17	76	217 S1+
890-1506-5	SW18	85	205 S1+
LCS 880-11258/1-A	Lab Control Sample	84	137 S1+
LCSD 880-11258/2-A	Lab Control Sample Dup	77	177 S1+
MB 880-11258/5-A	Method Blank	54 S1-	182 S1+

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1506-1	FS21	103	109
890-1506-2	FS22	94	100
890-1506-3	SW16	99	103
890-1506-4	SW17	89	93
890-1506-5	SW18	97	104
890-1514-A-1-D MS	Matrix Spike	97	81
890-1514-A-1-E MSD	Matrix Spike Duplicate	111	84
LCS 880-11260/2-A	Lab Control Sample	105	90
LCSD 880-11260/3-A	Lab Control Sample Dup	94	86
MB 880-11260/1-A	Method Blank	97	109

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11258/5-A
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11258

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/21 15:13	11/03/21 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*54*	*S1-*	*70 - 130*	*11/02/21 15:13*	*11/03/21 12:01*	*1*
1,4-Difluorobenzene (Surr)	*182*	*S1+*	*70 - 130*	*11/02/21 15:13*	*11/03/21 12:01*	*1*

Lab Sample ID: LCS 880-11258/1-A
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11258

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1087		mg/Kg		109	70 - 130		
Toluene			0.100	0.09796		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.08267		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1691		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.09889		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*137*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-11258/2-A
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11258

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1014		mg/Kg		101	70 - 130	7	35
Toluene			0.100	0.1035		mg/Kg		103	70 - 130	5	35
Ethylbenzene			0.100	0.09505		mg/Kg		95	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.1933		mg/Kg		97	70 - 130	13	35
o-Xylene			0.100	0.1102		mg/Kg		110	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*
1,4-Difluorobenzene (Surr)	*177*	*S1+*	*70 - 130*

Lab Sample ID: 890-1499-A-10-D MS
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11258

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.0994	0.09981		mg/Kg		100	70 - 130		
Toluene	<0.00200	U	0.0994	0.09309		mg/Kg		94	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1499-A-10-D MS
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11258

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0994	0.07982		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1	0.199	0.1570		mg/Kg		79	70 - 130
o-Xylene	<0.00200	U	0.0994	0.09041		mg/Kg		91	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*200*	*S1+*	*70 - 130*

Lab Sample ID: 890-1499-A-10-E MSD
Matrix: Solid
Analysis Batch: 11259

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11258

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.08457		mg/Kg		84	70 - 130	17	35
Toluene	<0.00200	U	0.101	0.07932		mg/Kg		79	70 - 130	16	35
Ethylbenzene	<0.00200	U	0.101	0.07211		mg/Kg		72	70 - 130	10	35
m-Xylene & p-Xylene	<0.00399	U F1	0.202	0.1394	F1	mg/Kg		69	70 - 130	12	35
o-Xylene	<0.00200	U	0.101	0.08163		mg/Kg		81	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*250*	*S1+*	*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11260/1-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11260

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 10:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 10:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*11/02/21 15:51*	*11/03/21 10:40*	*1*
o-Terphenyl	*109*		*70 - 130*	*11/02/21 15:51*	*11/03/21 10:40*	*1*

Lab Sample ID: LCS 880-11260/2-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11260

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	838.4		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)			1000	851.4		mg/Kg		85	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-11260/2-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11260

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-11260/3-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11260

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	953.0		mg/Kg		95	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	788.7		mg/Kg		79	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 890-1514-A-1-D MS
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11260

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	931.4		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	868.7		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 890-1514-A-1-E MSD
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11260

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	964.0		mg/Kg		96	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	900.3		mg/Kg		88	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	84		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11227/1-A
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/06/21 05:15	1

Lab Sample ID: LCS 880-11227/2-A
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	266.7		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-11227/3-A
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	267.5		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-1504-A-7-G MS
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	186		248	445.9		mg/Kg		105	90 - 110		

Lab Sample ID: 890-1504-A-7-H MSD
Matrix: Solid
Analysis Batch: 11379

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	186		248	441.5		mg/Kg		103	90 - 110	1	20

Lab Sample ID: MB 880-11235/1-A
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/06/21 22:29	1

Lab Sample ID: LCS 880-11235/2-A
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	222.3	*-	mg/Kg		89	90 - 110		

Lab Sample ID: LCSD 880-11235/3-A
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	225.3		mg/Kg		90	90 - 110	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1504-A-10-G MS
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	88.0	*-	250	328.9		mg/Kg		96	90 - 110		

Lab Sample ID: 890-1504-A-10-H MSD
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	88.0	*-	250	334.5		mg/Kg		99	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

GC VOA

Prep Batch: 11258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Total/NA	Solid	5035	
890-1506-2	FS22	Total/NA	Solid	5035	
890-1506-3	SW16	Total/NA	Solid	5035	
890-1506-4	SW17	Total/NA	Solid	5035	
890-1506-5	SW18	Total/NA	Solid	5035	
MB 880-11258/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11258/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11258/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1499-A-10-D MS	Matrix Spike	Total/NA	Solid	5035	
890-1499-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Total/NA	Solid	8021B	11258
890-1506-2	FS22	Total/NA	Solid	8021B	11258
890-1506-3	SW16	Total/NA	Solid	8021B	11258
890-1506-4	SW17	Total/NA	Solid	8021B	11258
890-1506-5	SW18	Total/NA	Solid	8021B	11258
MB 880-11258/5-A	Method Blank	Total/NA	Solid	8021B	11258
LCS 880-11258/1-A	Lab Control Sample	Total/NA	Solid	8021B	11258
LCSD 880-11258/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11258
890-1499-A-10-D MS	Matrix Spike	Total/NA	Solid	8021B	11258
890-1499-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11258

Analysis Batch: 11768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Total/NA	Solid	Total BTEX	
890-1506-2	FS22	Total/NA	Solid	Total BTEX	
890-1506-3	SW16	Total/NA	Solid	Total BTEX	
890-1506-4	SW17	Total/NA	Solid	Total BTEX	
890-1506-5	SW18	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Total/NA	Solid	8015NM Prep	
890-1506-2	FS22	Total/NA	Solid	8015NM Prep	
890-1506-3	SW16	Total/NA	Solid	8015NM Prep	
890-1506-4	SW17	Total/NA	Solid	8015NM Prep	
890-1506-5	SW18	Total/NA	Solid	8015NM Prep	
MB 880-11260/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11260/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11260/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1514-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1514-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Total/NA	Solid	8015B NM	11260
890-1506-2	FS22	Total/NA	Solid	8015B NM	11260

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

GC Semi VOA (Continued)

Analysis Batch: 11319 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-3	SW16	Total/NA	Solid	8015B NM	11260
890-1506-4	SW17	Total/NA	Solid	8015B NM	11260
890-1506-5	SW18	Total/NA	Solid	8015B NM	11260
MB 880-11260/1-A	Method Blank	Total/NA	Solid	8015B NM	11260
LCS 880-11260/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11260
LCSD 880-11260/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11260
890-1514-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	11260
890-1514-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11260

Analysis Batch: 11598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Total/NA	Solid	8015 NM	
890-1506-2	FS22	Total/NA	Solid	8015 NM	
890-1506-3	SW16	Total/NA	Solid	8015 NM	
890-1506-4	SW17	Total/NA	Solid	8015 NM	
890-1506-5	SW18	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Soluble	Solid	DI Leach	
MB 880-11227/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11227/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11227/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1504-A-7-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1504-A-7-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 11235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-2	FS22	Soluble	Solid	DI Leach	
890-1506-3	SW16	Soluble	Solid	DI Leach	
890-1506-4	SW17	Soluble	Solid	DI Leach	
890-1506-5	SW18	Soluble	Solid	DI Leach	
MB 880-11235/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11235/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11235/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1504-A-10-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1504-A-10-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-1	FS21	Soluble	Solid	300.0	11227
MB 880-11227/1-A	Method Blank	Soluble	Solid	300.0	11227
LCS 880-11227/2-A	Lab Control Sample	Soluble	Solid	300.0	11227
LCSD 880-11227/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11227
890-1504-A-7-G MS	Matrix Spike	Soluble	Solid	300.0	11227
890-1504-A-7-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11227

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

HPLC/IC

Analysis Batch: 11380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1506-2	FS22	Soluble	Solid	300.0	11235
890-1506-3	SW16	Soluble	Solid	300.0	11235
890-1506-4	SW17	Soluble	Solid	300.0	11235
890-1506-5	SW18	Soluble	Solid	300.0	11235
MB 880-11235/1-A	Method Blank	Soluble	Solid	300.0	11235
LCS 880-11235/2-A	Lab Control Sample	Soluble	Solid	300.0	11235
LCSD 880-11235/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11235
890-1504-A-10-G MS	Matrix Spike	Soluble	Solid	300.0	11235
890-1504-A-10-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11235

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Client Sample ID: FS21

Lab Sample ID: 890-1506-1
Matrix: Solid
Date Collected: 10/29/21 08:24
Date Received: 11/01/21 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		1	11259	11/03/21 18:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11260	11/02/21 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11319	11/03/21 16:42	AJ	XEN MID
Soluble	Leach	DI Leach			11227	11/02/21 11:52	CH	XEN MID
Soluble	Analysis	300.0		1	11379	11/06/21 14:51	CH	XEN MID

Client Sample ID: FS22

Lab Sample ID: 890-1506-2
Matrix: Solid
Date Collected: 10/29/21 08:35
Date Received: 11/01/21 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		1	11259	11/03/21 18:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11260	11/02/21 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11319	11/03/21 17:02	AJ	XEN MID
Soluble	Leach	DI Leach			11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		1	11380	11/07/21 00:05	CH	XEN MID

Client Sample ID: SW16

Lab Sample ID: 890-1506-3
Matrix: Solid
Date Collected: 10/29/21 12:56
Date Received: 11/01/21 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		1	11259	11/03/21 19:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11260	11/02/21 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11319	11/03/21 17:22	AJ	XEN MID
Soluble	Leach	DI Leach			11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		1	11380	11/07/21 00:13	CH	XEN MID

Client Sample ID: SW17

Lab Sample ID: 890-1506-4
Matrix: Solid
Date Collected: 10/29/21 12:18
Date Received: 11/01/21 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		1	11259	11/03/21 19:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:06	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Client Sample ID: SW17

Lab Sample ID: 890-1506-4
Matrix: Solid
Date Collected: 10/29/21 12:18
Date Received: 11/01/21 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11260	11/02/21 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11319	11/03/21 17:42	AJ	XEN MID
Soluble	Leach	DI Leach			11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		1	11380	11/07/21 00:20	CH	XEN MID

Client Sample ID: SW18

Lab Sample ID: 890-1506-5
Matrix: Solid
Date Collected: 10/29/21 12:20
Date Received: 11/01/21 10:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		1	11259	11/03/21 19:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11260	11/02/21 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11319	11/03/21 18:03	AJ	XEN MID
Soluble	Leach	DI Leach			11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		1	11380	11/07/21 00:27	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1506-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1506-1	FS21	Solid	10/29/21 08:24	11/01/21 10:37	4
890-1506-2	FS22	Solid	10/29/21 08:35	11/01/21 10:37	4
890-1506-3	SW16	Solid	10/29/21 12:56	11/01/21 10:37	0 - 4
890-1506-4	SW17	Solid	10/29/21 12:18	11/01/21 10:37	0 - 4
890-1506-5	SW18	Solid	10/29/21 12:20	11/01/21 10:37	0 - 4

Page 617 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.6/2.4	Thermometer ID		
Received Intact:	(Yes) No		TNM007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-1506 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS21	S	10/29/2021	824	4'	1	X	X	X	COMPOSITE
FS22	S	10/29/2021	835	4'	1	X	X	X	COMPOSITE
SW16	S	10/29/2021	1256	0-4'	1	X	X	X	COMPOSITE
SW17	S	10/29/2021	1218	0-4'	1	X	X	X	COMPOSITE
SW18	S	10/29/2021	1220	0-4'	1	X	X	X	COMPOSITE

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11/01/21 ; 1000	2		11-1-21 1057
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 618 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-489 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP Texas		Job #: 890-1506-1
Address: 1211 W Florida Ave	Due Date Requested: 11/5/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS21 (890-1506-1)	10/29/21	08 24 Mountain		Solid			X	X	X	X	X	1	
FS22 (890-1506-2)	10/29/21	08 35 Mountain		Solid			X	X	X	X	X	1	
SW16 (890-1506-3)	10/29/21	12 56 Mountain		Solid			X	X	X	X	X	1	
SW17 (890-1506-4)	10/29/21	12 18 Mountain		Solid			X	X	X	X	X	1	
SW18 (890-1506-5)	10/29/21	12 20 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: 11.1.21	Date/Time:	Company	Received by: KRAMER	Date/Time: 11.2.21	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1119	Company	
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.8/3.9

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM
Page 24 of 26
11/8/2021
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1506-1
SDG Number: te012929159

Login Number: 1506
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1506-1
SDG Number: te012929159

Login Number: 1506
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/02/21 11:25 AM

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	3.8/3.9
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1505-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/8/2021 6:47:21 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch

Laboratory Job ID: 890-1505-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 12
Lab Chronicle 14
Certification Summary 15
Method Summary 16
Sample Summary 17
Chain of Custody 18
Receipt Checklists 20

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1505-1
Project/Site: Ross Ranch SDG: te012929159

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Job ID: 890-1505-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1505-1

Receipt
The sample was received on 11/1/2021 10:37 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 2.4°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11445 and analytical batch 880-11449 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.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS23 (890-1505-1), (CCV 880-11449/30) and (890-1520-A-1-D). 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
Method 300_ORGFM_28D: The laboratory control sample (LCS) associated with preparation batch 880-11235 and analytical batch 880-11380 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Client Sample ID: FS23

Date Collected: 10/29/21 08:40
Date Received: 11/01/21 10:37
Sample Depth: 4

Lab Sample ID: 890-1505-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/04/21 11:11	11/05/21 04:02	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/04/21 11:11	11/05/21 04:02	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/04/21 11:11	11/05/21 04:02	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/04/21 11:11	11/05/21 04:02	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/04/21 11:11	11/05/21 04:02	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/04/21 11:11	11/05/21 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*180*	*S1+*	*70 - 130*	*11/04/21 11:11*	*11/05/21 04:02*	*1*
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*	*11/04/21 11:11*	*11/05/21 04:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/08/21 17:11	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**631**		49.9		mg/Kg			11/08/21 15:54	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 16:22	1
Diesel Range Organics (Over C10-C28)	**631**		49.9		mg/Kg		11/02/21 15:51	11/03/21 16:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/02/21 15:51	11/03/21 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/02/21 15:51*	*11/03/21 16:22*	*1*
o-Terphenyl	*89*		*70 - 130*	*11/02/21 15:51*	*11/03/21 16:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2370**	***-**	25.3		mg/Kg			11/06/21 22:58	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1505-1	FS23	180 S1+	127
890-1520-A-1-B MS	Matrix Spike	101	103
890-1520-A-1-C MSD	Matrix Spike Duplicate	61 S1-	204 S1+
LCS 880-11445/1-A	Lab Control Sample	103	230 S1+
LCS 880-11449/3	Lab Control Sample	94	190 S1+
LCSD 880-11445/2-A	Lab Control Sample Dup	82	234 S1+
LCSD 880-11449/4	Lab Control Sample Dup	95	198 S1+
MB 880-11445/5-A	Method Blank	65 S1-	196 S1+
MB 880-11449/8	Method Blank	63 S1-	187 S1+

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1505-1	FS23	96	89
890-1514-A-1-D MS	Matrix Spike	97	81
890-1514-A-1-E MSD	Matrix Spike Duplicate	111	84
LCS 880-11260/2-A	Lab Control Sample	105	90
LCSD 880-11260/3-A	Lab Control Sample Dup	94	86
MB 880-11260/1-A	Method Blank	97	109

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11445/5-A
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11445

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/04/21 11:11	11/04/21 21:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/04/21 11:11	11/04/21 21:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/04/21 11:11	11/04/21 21:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/04/21 11:11	11/04/21 21:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/04/21 11:11	11/04/21 21:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/04/21 11:11	11/04/21 21:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*11/04/21 11:11*	*11/04/21 21:28*	*1*
1,4-Difluorobenzene (Surr)	*196*	*S1+*	*70 - 130*	*11/04/21 11:11*	*11/04/21 21:28*	*1*

Lab Sample ID: LCS 880-11445/1-A
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11445

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1225		mg/Kg		122	70 - 130		
Toluene			0.100	0.1133		mg/Kg		113	70 - 130		
Ethylbenzene			0.100	0.1054		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2176		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1278		mg/Kg		128	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*230*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-11445/2-A
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11445

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09174		mg/Kg		92	70 - 130	29	35
Toluene			0.100	0.08621		mg/Kg		86	70 - 130	27	35
Ethylbenzene			0.100	0.07899		mg/Kg		79	70 - 130	29	35
m-Xylene & p-Xylene			0.200	0.1558		mg/Kg		78	70 - 130	33	35
o-Xylene			0.100	0.09402		mg/Kg		94	70 - 130	30	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*234*	*S1+*	*70 - 130*

Lab Sample ID: 890-1520-A-1-B MS
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11445

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.00453	F1	0.0996	0.07184	F1	mg/Kg		68	70 - 130		
Toluene	0.00416	F1 F2	0.0996	0.002115	F1	mg/Kg		-2	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1520-A-1-B MS
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11445

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U F1 F2	0.0996	0.06456	F1	mg/Kg		65	70 - 130
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.199	0.1288	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0996	0.08438		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1520-A-1-C MSD
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11445

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00453	F1	0.100	0.06470	F1	mg/Kg		60	70 - 130	10	35
Toluene	0.00416	F1 F2	0.100	0.03154	F1 F2	mg/Kg		27	70 - 130	175	35
Ethylbenzene	<0.00200	U F1 F2	0.100	0.02033	F1 F2	mg/Kg		20	70 - 130	104	35
m-Xylene & p-Xylene	<0.00399	U F1 F2	0.200	0.01225	F1 F2	mg/Kg		5	70 - 130	165	35
o-Xylene	<0.00200	U F1 F2	0.100	0.01299	F1 F2	mg/Kg		13	70 - 130	147	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*61*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*204*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-11449/8
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			11/04/21 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg			11/04/21 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			11/04/21 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			11/04/21 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			11/04/21 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			11/04/21 15:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*63*	*S1-*	*70 - 130*		*11/04/21 15:47*	*1*
1,4-Difluorobenzene (Surr)	*187*	*S1+*	*70 - 130*		*11/04/21 15:47*	*1*

Lab Sample ID: LCS 880-11449/3
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1209		mg/Kg		121	70 - 130
Toluene	0.100	0.1145		mg/Kg		114	70 - 130
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2177		mg/Kg		109	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-11449/3
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.1244		mg/Kg		124	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*190*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-11449/4
Matrix: Solid
Analysis Batch: 11449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1235		mg/Kg		123	70 - 130	2	35
Toluene			0.100	0.1165		mg/Kg		117	70 - 130	2	35
Ethylbenzene			0.100	0.1076		mg/Kg		108	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2185		mg/Kg		109	70 - 130	0	35
o-Xylene			0.100	0.1273		mg/Kg		127	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*198*	*S1+*	*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11260/1-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11260

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 10:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 10:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/02/21 15:51	11/03/21 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*11/02/21 15:51*	*11/03/21 10:40*	*1*
o-Terphenyl	*109*		*70 - 130*	*11/02/21 15:51*	*11/03/21 10:40*	*1*

Lab Sample ID: LCS 880-11260/2-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11260

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	838.4		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	851.4		mg/Kg		85	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-11260/2-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11260

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-11260/3-A
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11260

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	953.0		mg/Kg		95	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	788.7		mg/Kg		79	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 890-1514-A-1-D MS
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11260

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	931.4		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	868.7		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 890-1514-A-1-E MSD
Matrix: Solid
Analysis Batch: 11319

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11260

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	964.0		mg/Kg		96	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	900.3		mg/Kg		88	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	84		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11235/1-A
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/06/21 22:29	1

Lab Sample ID: LCS 880-11235/2-A
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	222.3	*-	mg/Kg		89	90 - 110		

Lab Sample ID: LCSD 880-11235/3-A
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	225.3		mg/Kg		90	90 - 110	1	20

Lab Sample ID: 890-1504-A-10-G MS
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	88.0	*-	250	328.9		mg/Kg		96	90 - 110		

Lab Sample ID: 890-1504-A-10-H MSD
Matrix: Solid
Analysis Batch: 11380

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	88.0	*-	250	334.5		mg/Kg		99	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

GC VOA

Prep Batch: 11445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Total/NA	Solid	5035	
MB 880-11445/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11445/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11445/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1520-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1520-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Total/NA	Solid	8021B	11445
MB 880-11445/5-A	Method Blank	Total/NA	Solid	8021B	11445
MB 880-11449/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-11445/1-A	Lab Control Sample	Total/NA	Solid	8021B	11445
LCS 880-11449/3	Lab Control Sample	Total/NA	Solid	8021B	
LCSD 880-11445/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11445
LCSD 880-11449/4	Lab Control Sample Dup	Total/NA	Solid	8021B	
890-1520-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	11445
890-1520-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11445

Analysis Batch: 11768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Total/NA	Solid	8015NM Prep	
MB 880-11260/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11260/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11260/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1514-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1514-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Total/NA	Solid	8015B NM	11260
MB 880-11260/1-A	Method Blank	Total/NA	Solid	8015B NM	11260
LCS 880-11260/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11260
LCSD 880-11260/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11260
890-1514-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	11260
890-1514-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11260

Analysis Batch: 11598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

HPLC/IC (Continued)

Leach Batch: 11235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11235/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11235/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11235/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1504-A-10-G MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1504-A-10-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1505-1	FS23	Soluble	Solid	300.0	11235
MB 880-11235/1-A	Method Blank	Soluble	Solid	300.0	11235
LCS 880-11235/2-A	Lab Control Sample	Soluble	Solid	300.0	11235
LCSD 880-11235/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11235
890-1504-A-10-G MS	Matrix Spike	Soluble	Solid	300.0	11235
890-1504-A-10-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11235

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Client Sample ID: FS23

Date Collected: 10/29/21 08:40
Date Received: 11/01/21 10:37

Lab Sample ID: 890-1505-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11445	11/04/21 11:11	MR	XEN MID
Total/NA	Analysis	8021B		1	11449	11/05/21 04:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:11	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11260	11/02/21 15:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11319	11/03/21 16:22	AJ	XEN MID
Soluble	Leach	DI Leach			11235	11/02/21 12:18	CH	XEN MID
Soluble	Analysis	300.0		5	11380	11/06/21 22:58	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch

Job ID: 890-1505-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1505-1	FS23	Solid	10/29/21 08:40	11/01/21 10:37	4

Page 638 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	2.6/2.4	Thermometer ID		
Received Intact:	Yes No	TNM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS23	S	10/29/2021	840	4'	1	X	X	X

890-1505 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

COMPOSITE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/9/21 ; 1000	2 Clue Culp 11-1-21 1037		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

11/8/2021

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s)	COC No: 890-489 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1505-1
Address: 1211 W Florida Ave	Due Date Requested: 11/5/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
FS23 (890-1505-1)	10/29/21	08 40 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Chee Cruz 11.1.21			Kramer	11.2.21	
2	Relinquished by	Date/Time	Company	Received by	Date/Time 1119	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.8/3.9

Ver: 06/08/2021

Page 639 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/8/2021
Page 19 of 21
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1505-1
SDG Number: te012929159

Login Number: 1505
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1505-1
SDG Number: te012929159

Login Number: 1505
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/02/21 11:25 AM

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	3.8/3.9
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1533-1
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/12/2021 6:17:57 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS
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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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1533-1
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 12
QC Sample Results 13
QC Association Summary 19
Lab Chronicle 23
Certification Summary 26
Method Summary 27
Sample Summary 28
Chain of Custody 29
Receipt Checklists 31

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1533-1
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

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
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Job ID: 890-1533-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1533-1

Receipt
The samples were received on 11/4/2021 8:33 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 0.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11532 and analytical batch 880-11601 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
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-11610 and analytical batch 880-11624 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-11610 and analytical batch 880-11624 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10

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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: FS24

Lab Sample ID: 890-1533-1
Matrix: Solid
Date Collected: 11/01/21 10:44
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1 F2	0.00198		mg/Kg		11/05/21 11:23	11/06/21 05:22	1
Toluene	<0.00198	U F1 F2	0.00198		mg/Kg		11/05/21 11:23	11/06/21 05:22	1
Ethylbenzene	<0.00198	U F1 F2	0.00198		mg/Kg		11/05/21 11:23	11/06/21 05:22	1
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.00397		mg/Kg		11/05/21 11:23	11/06/21 05:22	1
o-Xylene	<0.00198	U F1 F2	0.00198		mg/Kg		11/05/21 11:23	11/06/21 05:22	1
Xylenes, Total	<0.00397	U F1 F2	0.00397		mg/Kg		11/05/21 11:23	11/06/21 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/05/21 11:23*	*11/06/21 05:22*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/05/21 11:23*	*11/06/21 05:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 18:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 18:11	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*11/05/21 15:11*	*11/06/21 18:11*	*1*
o-Terphenyl	*86*		*70 - 130*	*11/05/21 15:11*	*11/06/21 18:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.3**		4.97		mg/Kg			11/10/21 16:59	1

Client Sample ID: FS25

Lab Sample ID: 890-1533-2
Matrix: Solid
Date Collected: 11/01/21 10:48
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 05:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 05:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 05:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 05:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 05:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 05:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*11/05/21 11:23*	*11/06/21 05:42*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: FS25

Lab Sample ID: 890-1533-2
Matrix: Solid
Date Collected: 11/01/21 10:48
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/05/21 11:23*	*11/06/21 05:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/09/21 16:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 18:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 18:32	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*97*		*70 - 130*	*11/05/21 15:11*	*11/06/21 18:32*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/05/21 15:11*	*11/06/21 18:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.5**		4.99	mg/Kg			11/10/21 17:52	1

Client Sample ID: SW19

Lab Sample ID: 890-1533-3
Matrix: Solid
Date Collected: 11/01/21 11:00
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 06:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 06:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 06:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/05/21 11:23	11/06/21 06:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 06:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/05/21 11:23	11/06/21 06:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/05/21 11:23*	*11/06/21 06:02*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*11/05/21 11:23*	*11/06/21 06:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/09/21 16:19	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW19

Lab Sample ID: 890-1533-3
Matrix: Solid
Date Collected: 11/01/21 11:00
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 18:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 18:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/05/21 15:11*	*11/06/21 18:54*	*1*
o-Terphenyl	*100*		*70 - 130*	*11/05/21 15:11*	*11/06/21 18:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.7**		4.95		mg/Kg			11/12/21 08:49	1

Client Sample ID: SW20

Lab Sample ID: 890-1533-4
Matrix: Solid
Date Collected: 11/01/21 11:05
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 06:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 06:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 06:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 06:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 06:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*11/05/21 11:23*	*11/06/21 06:23*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*11/05/21 11:23*	*11/06/21 06:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/09/21 16:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 19:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 19:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*11/05/21 15:11*	*11/06/21 19:15*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/05/21 15:11*	*11/06/21 19:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW20

Lab Sample ID: 890-1533-4
Matrix: Solid
Date Collected: 11/01/21 11:05
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.3**		5.04		mg/Kg			11/12/21 11:38	1

Client Sample ID: SW21

Lab Sample ID: 890-1533-5
Matrix: Solid
Date Collected: 11/01/21 11:10
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 06:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 06:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 06:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 06:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 06:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 06:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*11/05/21 11:23*	*11/06/21 06:43*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*11/05/21 11:23*	*11/06/21 06:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.8**		49.8		mg/Kg			11/09/21 16:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/05/21 15:11	11/06/21 19:37	1
Diesel Range Organics (Over C10-C28)	**52.8**		49.8		mg/Kg		11/05/21 15:11	11/06/21 19:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/05/21 15:11	11/06/21 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/05/21 15:11*	*11/06/21 19:37*	*1*
o-Terphenyl	*103*		*70 - 130*	*11/05/21 15:11*	*11/06/21 19:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38.4**		4.97		mg/Kg			11/12/21 11:45	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW22

Lab Sample ID: 890-1533-6
Matrix: Solid
Date Collected: 11/01/21 11:15
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 07:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 07:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 07:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 07:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 07:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 07:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/05/21 11:23*	*11/06/21 07:04*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/05/21 11:23*	*11/06/21 07:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 19:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 19:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*11/05/21 15:11*	*11/06/21 19:58*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/05/21 15:11*	*11/06/21 19:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		4.95		mg/Kg			11/12/21 11:53	1

Client Sample ID: SW23

Lab Sample ID: 890-1533-7
Matrix: Solid
Date Collected: 11/01/21 14:00
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 07:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 07:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/05/21 11:23*	*11/06/21 07:24*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW23

Lab Sample ID: 890-1533-7
Matrix: Solid
Date Collected: 11/01/21 14:00
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/05/21 11:23*	*11/06/21 07:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/09/21 16:19	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		11/05/21 14:32	11/06/21 20:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 14:32	11/06/21 20:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 14:32	11/06/21 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*105*		*70 - 130*	*11/05/21 14:32*	*11/06/21 20:40*	*1*
o-Terphenyl	*117*		*70 - 130*	*11/05/21 14:32*	*11/06/21 20:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.6**		4.99		mg/Kg			11/12/21 12:00	1

Client Sample ID: SW24

Lab Sample ID: 890-1533-8
Matrix: Solid
Date Collected: 11/01/21 14:05
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 07:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 07:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 07:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/05/21 11:23*	*11/06/21 07:45*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/05/21 11:23*	*11/06/21 07:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/11/21 14:02	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/09/21 16:19	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW24
Date Collected: 11/01/21 14:05
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Lab Sample ID: 890-1533-8
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8		mg/Kg		11/05/21 14:32	11/06/21 21:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/05/21 14:32	11/06/21 21:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/05/21 14:32	11/06/21 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*11/05/21 14:32*	*11/06/21 21:01*	*1*
o-Terphenyl	*119*		*70 - 130*	*11/05/21 14:32*	*11/06/21 21:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.6**		5.05		mg/Kg			11/12/21 12:22	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1533-1	FS24	119	99
890-1533-1 MS	FS24	121	100
890-1533-1 MSD	FS24	116	100
890-1533-2	FS25	77	89
890-1533-3	SW19	119	105
890-1533-4	SW20	114	95
890-1533-5	SW21	127	104
890-1533-6	SW22	124	107
890-1533-7	SW23	123	106
890-1533-8	SW24	117	96
LCS 880-11532/1-A	Lab Control Sample	109	105
LCSD 880-11532/2-A	Lab Control Sample Dup	116	102
MB 880-11531/5-A	Method Blank	123	110
MB 880-11532/5-A	Method Blank	120	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1530-A-1-F MS	Matrix Spike	110	99
890-1530-A-1-G MSD	Matrix Spike Duplicate	101	91
890-1531-A-1-C MS	Matrix Spike	99	102
890-1531-A-1-D MSD	Matrix Spike Duplicate	95	92
890-1533-1	FS24	77	86
890-1533-2	FS25	97	104
890-1533-3	SW19	89	100
890-1533-4	SW20	85	96
890-1533-5	SW21	95	103
890-1533-6	SW22	89	93
890-1533-7	SW23	105	117
890-1533-8	SW24	101	119
LCS 880-11610/2-A	Lab Control Sample	77	76
LCS 880-11611/2-A	Lab Control Sample	98	91
LCSD 880-11610/3-A	Lab Control Sample Dup	72	73
LCSD 880-11611/3-A	Lab Control Sample Dup	111	98
MB 880-11610/1-A	Method Blank	99	112
MB 880-11611/1-A	Method Blank	107	121

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11531/5-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:19	11/05/21 17:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:21*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:21*	*1*

Lab Sample ID: MB 880-11532/5-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11532

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:23	11/06/21 04:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/05/21 11:23*	*11/06/21 04:53*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/05/21 11:23*	*11/06/21 04:53*	*1*

Lab Sample ID: LCS 880-11532/1-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11532

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09671		mg/Kg		97	70 - 130		
Toluene			0.100	0.09834		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.09981		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.1958		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.09726		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-11532/2-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11532

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09457		mg/Kg		95	70 - 130	2	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-11532/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11601 — **Prep Batch: 11532**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09793		mg/Kg		98	70 - 130	0	35
Ethylbenzene			0.100	0.1006		mg/Kg		101	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1981		mg/Kg		99	70 - 130	1	35
o-Xylene			0.100	0.09696		mg/Kg		97	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-1533-1 MS — **Client Sample ID: FS24**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11601 — **Prep Batch: 11532**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F1 F2	0.0996	0.06079	F1	mg/Kg		60	70 - 130
Toluene	<0.00198	U F1 F2	0.0996	0.07168		mg/Kg		71	70 - 130
Ethylbenzene	<0.00198	U F1 F2	0.0996	0.06706	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.199	0.1313	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00198	U F1 F2	0.0996	0.06616	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-1533-1 MSD — **Client Sample ID: FS24**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11601 — **Prep Batch: 11532**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1 F2	0.0994	0.03443	F1 F2	mg/Kg		34	70 - 130	55	35
Toluene	<0.00198	U F1 F2	0.0994	0.04255	F1 F2	mg/Kg		42	70 - 130	51	35
Ethylbenzene	<0.00198	U F1 F2	0.0994	0.04437	F1 F2	mg/Kg		45	70 - 130	41	35
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.199	0.08392	F1 F2	mg/Kg		42	70 - 130	44	35
o-Xylene	<0.00198	U F1 F2	0.0994	0.04221	F1 F2	mg/Kg		42	70 - 130	44	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11610/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11624 — **Prep Batch: 11610**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 14:32	11/06/21 12:08	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-11610/1-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11610

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 14:32	11/06/21 12:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 14:32	11/06/21 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*11/05/21 14:32*	*11/06/21 12:08*	*1*
o-Terphenyl	*112*		*70 - 130*	*11/05/21 14:32*	*11/06/21 12:08*	*1*

Lab Sample ID: LCS 880-11610/2-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11610

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1096		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	834.8		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*77*		*70 - 130*
o-Terphenyl	*76*		*70 - 130*

Lab Sample ID: LCSD 880-11610/3-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11610

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	865.6	*1	mg/Kg		87	70 - 130	23	20
Diesel Range Organics (Over C10-C28)			1000	747.6		mg/Kg		75	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*72*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 890-1531-A-1-C MS
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	997	1170		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1044		mg/Kg		105	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1531-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11624 — **Prep Batch: 11610**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	1000	1283		mg/Kg		128	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	969.9		mg/Kg		97	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: MB 880-11611/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11626 — **Prep Batch: 11611**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 12:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 12:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*11/05/21 15:11*	*11/06/21 12:08*	*1*
o-Terphenyl	*121*		*70 - 130*	*11/05/21 15:11*	*11/06/21 12:08*	*1*

Lab Sample ID: LCS 880-11611/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11626 — **Prep Batch: 11611**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	908.8		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	890.7		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: LCSD 880-11611/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 11626 — **Prep Batch: 11611**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	768.0		mg/Kg		77	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	966.3		mg/Kg		97	70 - 130	8	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-11611/3-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11611

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-1530-A-1-F MS
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11611

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1153		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1066		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-1530-A-1-G MSD
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11611

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1224		mg/Kg		122	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	958.9		mg/Kg		94	70 - 130	11	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	91		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11669/1-A
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/10/21 12:24	1

Lab Sample ID: LCS 880-11669/2-A
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	249.5		mg/Kg		100	90 - 110

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-11669/3-A
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	250.1		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1527-A-10-E MS
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	22.7		253	273.2		mg/Kg		99	90 - 110

Lab Sample ID: 890-1527-A-10-F MSD
Matrix: Solid
Analysis Batch: 11847

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	22.7		250	263.3		mg/Kg		96	90 - 110	4	20

Lab Sample ID: MB 880-11670/1-A
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/12/21 08:26	1

Lab Sample ID: LCS 880-11670/2-A
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	248.2		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-11670/3-A
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1533-3 MS
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: SW19
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.7		248	249.3		mg/Kg		94	90 - 110

Lab Sample ID: 890-1533-3 MSD
Matrix: Solid
Analysis Batch: 11952

Client Sample ID: SW19
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16.7		248	249.7		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

GC VOA

Prep Batch: 11531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11531/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Total/NA	Solid	5035	
890-1533-2	FS25	Total/NA	Solid	5035	
890-1533-3	SW19	Total/NA	Solid	5035	
890-1533-4	SW20	Total/NA	Solid	5035	
890-1533-5	SW21	Total/NA	Solid	5035	
890-1533-6	SW22	Total/NA	Solid	5035	
890-1533-7	SW23	Total/NA	Solid	5035	
890-1533-8	SW24	Total/NA	Solid	5035	
MB 880-11532/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11532/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11532/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1533-1 MS	FS24	Total/NA	Solid	5035	
890-1533-1 MSD	FS24	Total/NA	Solid	5035	

Analysis Batch: 11601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Total/NA	Solid	8021B	11532
890-1533-2	FS25	Total/NA	Solid	8021B	11532
890-1533-3	SW19	Total/NA	Solid	8021B	11532
890-1533-4	SW20	Total/NA	Solid	8021B	11532
890-1533-5	SW21	Total/NA	Solid	8021B	11532
890-1533-6	SW22	Total/NA	Solid	8021B	11532
890-1533-7	SW23	Total/NA	Solid	8021B	11532
890-1533-8	SW24	Total/NA	Solid	8021B	11532
MB 880-11531/5-A	Method Blank	Total/NA	Solid	8021B	11531
MB 880-11532/5-A	Method Blank	Total/NA	Solid	8021B	11532
LCS 880-11532/1-A	Lab Control Sample	Total/NA	Solid	8021B	11532
LCSD 880-11532/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11532
890-1533-1 MS	FS24	Total/NA	Solid	8021B	11532
890-1533-1 MSD	FS24	Total/NA	Solid	8021B	11532

Analysis Batch: 12040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Total/NA	Solid	Total BTEX	
890-1533-2	FS25	Total/NA	Solid	Total BTEX	
890-1533-3	SW19	Total/NA	Solid	Total BTEX	
890-1533-4	SW20	Total/NA	Solid	Total BTEX	
890-1533-5	SW21	Total/NA	Solid	Total BTEX	
890-1533-6	SW22	Total/NA	Solid	Total BTEX	
890-1533-7	SW23	Total/NA	Solid	Total BTEX	
890-1533-8	SW24	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-7	SW23	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

GC Semi VOA (Continued)

Prep Batch: 11610 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-8	SW24	Total/NA	Solid	8015NM Prep	
MB 880-11610/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11610/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1531-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1531-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 11611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Total/NA	Solid	8015NM Prep	
890-1533-2	FS25	Total/NA	Solid	8015NM Prep	
890-1533-3	SW19	Total/NA	Solid	8015NM Prep	
890-1533-4	SW20	Total/NA	Solid	8015NM Prep	
890-1533-5	SW21	Total/NA	Solid	8015NM Prep	
890-1533-6	SW22	Total/NA	Solid	8015NM Prep	
MB 880-11611/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11611/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1530-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1530-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-7	SW23	Total/NA	Solid	8015B NM	11610
890-1533-8	SW24	Total/NA	Solid	8015B NM	11610
MB 880-11610/1-A	Method Blank	Total/NA	Solid	8015B NM	11610
LCS 880-11610/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11610
LCSD 880-11610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11610
890-1531-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	11610
890-1531-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11610

Analysis Batch: 11626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Total/NA	Solid	8015B NM	11611
890-1533-2	FS25	Total/NA	Solid	8015B NM	11611
890-1533-3	SW19	Total/NA	Solid	8015B NM	11611
890-1533-4	SW20	Total/NA	Solid	8015B NM	11611
890-1533-5	SW21	Total/NA	Solid	8015B NM	11611
890-1533-6	SW22	Total/NA	Solid	8015B NM	11611
MB 880-11611/1-A	Method Blank	Total/NA	Solid	8015B NM	11611
LCS 880-11611/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11611
LCSD 880-11611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11611
890-1530-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	11611
890-1530-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11611

Analysis Batch: 11856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Total/NA	Solid	8015 NM	
890-1533-2	FS25	Total/NA	Solid	8015 NM	
890-1533-3	SW19	Total/NA	Solid	8015 NM	
890-1533-4	SW20	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

GC Semi VOA (Continued)

Analysis Batch: 11856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-5	SW21	Total/NA	Solid	8015 NM	
890-1533-6	SW22	Total/NA	Solid	8015 NM	
890-1533-7	SW23	Total/NA	Solid	8015 NM	
890-1533-8	SW24	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Soluble	Solid	DI Leach	
890-1533-2	FS25	Soluble	Solid	DI Leach	
MB 880-11669/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11669/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11669/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1527-A-10-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1527-A-10-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 11670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-3	SW19	Soluble	Solid	DI Leach	
890-1533-4	SW20	Soluble	Solid	DI Leach	
890-1533-5	SW21	Soluble	Solid	DI Leach	
890-1533-6	SW22	Soluble	Solid	DI Leach	
890-1533-7	SW23	Soluble	Solid	DI Leach	
890-1533-8	SW24	Soluble	Solid	DI Leach	
MB 880-11670/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11670/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11670/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1533-3 MS	SW19	Soluble	Solid	DI Leach	
890-1533-3 MSD	SW19	Soluble	Solid	DI Leach	

Analysis Batch: 11847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-1	FS24	Soluble	Solid	300.0	11669
890-1533-2	FS25	Soluble	Solid	300.0	11669
MB 880-11669/1-A	Method Blank	Soluble	Solid	300.0	11669
LCS 880-11669/2-A	Lab Control Sample	Soluble	Solid	300.0	11669
LCSD 880-11669/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11669
890-1527-A-10-E MS	Matrix Spike	Soluble	Solid	300.0	11669
890-1527-A-10-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11669

Analysis Batch: 11952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1533-3	SW19	Soluble	Solid	300.0	11670
890-1533-4	SW20	Soluble	Solid	300.0	11670
890-1533-5	SW21	Soluble	Solid	300.0	11670
890-1533-6	SW22	Soluble	Solid	300.0	11670
890-1533-7	SW23	Soluble	Solid	300.0	11670
890-1533-8	SW24	Soluble	Solid	300.0	11670
MB 880-11670/1-A	Method Blank	Soluble	Solid	300.0	11670
LCS 880-11670/2-A	Lab Control Sample	Soluble	Solid	300.0	11670

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

HPLC/IC (Continued)

Analysis Batch: 11952 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-11670/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11670
890-1533-3 MS	SW19	Soluble	Solid	300.0	11670
890-1533-3 MSD	SW19	Soluble	Solid	300.0	11670

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: FS24

Lab Sample ID: 890-1533-1
Matrix: Solid
Date Collected: 11/01/21 10:44
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 05:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 18:11	AJ	XEN MID
Soluble	Leach	DI Leach			11669	11/08/21 11:25	CH	XEN MID
Soluble	Analysis	300.0		1	11847	11/10/21 16:59	CH	XEN MID

Client Sample ID: FS25

Lab Sample ID: 890-1533-2
Matrix: Solid
Date Collected: 11/01/21 10:48
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 05:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 18:32	AJ	XEN MID
Soluble	Leach	DI Leach			11669	11/08/21 11:25	CH	XEN MID
Soluble	Analysis	300.0		1	11847	11/10/21 17:52	CH	XEN MID

Client Sample ID: SW19

Lab Sample ID: 890-1533-3
Matrix: Solid
Date Collected: 11/01/21 11:00
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 06:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 18:54	AJ	XEN MID
Soluble	Leach	DI Leach			11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1	11952	11/12/21 08:49	SC	XEN MID

Client Sample ID: SW20

Lab Sample ID: 890-1533-4
Matrix: Solid
Date Collected: 11/01/21 11:05
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 06:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW20

Lab Sample ID: 890-1533-4
Matrix: Solid
Date Collected: 11/01/21 11:05
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 19:15	AJ	XEN MID
Soluble	Leach	DI Leach			11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1	11952	11/12/21 11:38	SC	XEN MID

Client Sample ID: SW21

Lab Sample ID: 890-1533-5
Matrix: Solid
Date Collected: 11/01/21 11:10
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 06:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 19:37	AJ	XEN MID
Soluble	Leach	DI Leach			11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1	11952	11/12/21 11:45	SC	XEN MID

Client Sample ID: SW22

Lab Sample ID: 890-1533-6
Matrix: Solid
Date Collected: 11/01/21 11:15
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 07:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 19:58	AJ	XEN MID
Soluble	Leach	DI Leach			11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1	11952	11/12/21 11:53	SC	XEN MID

Client Sample ID: SW23

Lab Sample ID: 890-1533-7
Matrix: Solid
Date Collected: 11/01/21 14:00
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 07:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11610	11/05/21 14:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/06/21 20:40	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Client Sample ID: SW23
Date Collected: 11/01/21 14:00
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1533-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1	11952	11/12/21 12:00	SC	XEN MID

Client Sample ID: SW24
Date Collected: 11/01/21 14:05
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1533-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 07:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	12040	11/11/21 14:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11610	11/05/21 14:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/06/21 21:01	AJ	XEN MID
Soluble	Leach	DI Leach			11670	11/08/21 11:27	CH	XEN MID
Soluble	Analysis	300.0		1	11952	11/12/21 12:22	SC	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1533-1
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1533-1	FS24	Solid	11/01/21 10:44	11/04/21 08:33	4
890-1533-2	FS25	Solid	11/01/21 10:48	11/04/21 08:33	4
890-1533-3	SW19	Solid	11/01/21 11:00	11/04/21 08:33	0 - 4
890-1533-4	SW20	Solid	11/01/21 11:05	11/04/21 08:33	0 - 4
890-1533-5	SW21	Solid	11/01/21 11:10	11/04/21 08:33	0 - 4
890-1533-6	SW22	Solid	11/01/21 11:15	11/04/21 08:33	0 - 4
890-1533-7	SW23	Solid	11/01/21 14:00	11/04/21 08:33	0 - 4
890-1533-8	SW24	Solid	11/01/21 14:05	11/04/21 08:33	0 - 4

Page 670 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	X
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	1.0/0.8	Thermometer ID	TWM-307	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS24	S	11/1/2021	1044	4'	1	X	X	X
FS25	S	11/1/2021	1048	4'	1	X	X	X
SW19	S	11/1/2021	1100	0-4'	1	X	X	X
SW20	S	11/1/2021	1105	0-4'	1	X	X	X
SW21	S	11/1/2021	1110	0-4'	1	X	X	X
SW22	S	11/1/2021	1115	0-4'	1	X	X	X
SW23	S	11/1/2021	1400	0-4'	1	X	X	X
SW24	S	11/1/2021	1405	0-4'	1	X	X	X

ANALYSIS REQUEST



Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE
COMPOSITE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-4-21 / 1600	2		11.4.21 0833
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Page 29 of 32

11/12/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1533-1
Address: 1211 W Florida Ave	Due Date Requested: 11/10/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS24 (890-1533-1)	11/1/21	10 44 Mountain		Solid			X	X	X	X	X	1	
FS25 (890-1533-2)	11/1/21	10 48 Mountain		Solid			X	X	X	X	X	1	
SW19 (890-1533-3)	11/1/21	11 00 Mountain		Solid			X	X	X	X	X	1	
SW20 (890-1533-4)	11/1/21	11 05 Mountain		Solid			X	X	X	X	X	1	
SW21 (890-1533-5)	11/1/21	11 10 Mountain		Solid			X	X	X	X	X	1	
SW22 (890-1533-6)	11/1/21	11 15 Mountain		Solid			X	X	X	X	X	1	
SW23 (890-1533-7)	11/1/21	14 00 Mountain		Solid			X	X	X	X	X	1	
SW24 (890-1533-8)	11/1/21	14 05 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Cloe Cuzp 11-4-21			[signature]	11-5-21	
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time 1304	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks	4.6/4.7

Ver: 06/08/2021

Page 671 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/12/2021
Page 30 of 32
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1533-1
SDG Number: te012929159

Login Number: 1533
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1533-1
SDG Number: te012929159

Login Number: 1533
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1529-1
Laboratory Sample Delivery Group: TE0129159
Client Project/Site: Ross Ranch 6

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/17/2021 4:22:29 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1529-1
SDG: TE0129159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1529-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc. Job ID: 890-1529-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Job ID: 890-1529-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1529-1

Receipt
The sample was received on 11/4/2021 8:33 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 0.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11533 and analytical batch 880-11613 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.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS26 (890-1529-1) and (MB 880-11533/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-11610 and analytical batch 880-11624 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-11610 and analytical batch 880-11624 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10

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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Client Sample ID: FS26

Date Collected: 11/01/21 13:25
Date Received: 11/04/21 08:33
Sample Depth: 4

Lab Sample ID: 890-1529-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199		mg/Kg		11/05/21 11:26	11/05/21 20:25	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		11/05/21 11:26	11/05/21 20:25	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		11/05/21 11:26	11/05/21 20:25	1
m-Xylene & p-Xylene	**0.0116**	**F1**	0.00398		mg/Kg		11/05/21 11:26	11/05/21 20:25	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		11/05/21 11:26	11/05/21 20:25	1
Xylenes, Total	**0.0116**	**F1**	0.00398		mg/Kg		11/05/21 11:26	11/05/21 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*11/05/21 11:26*	*11/05/21 20:25*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/05/21 11:26*	*11/05/21 20:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0116**		0.00398		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**398**		49.9		mg/Kg			11/11/21 14:46	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		11/05/21 14:32	11/06/21 20:19	1
Diesel Range Organics (Over C10-C28)	**398**		49.9		mg/Kg		11/05/21 14:32	11/06/21 20:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 14:32	11/06/21 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*11/05/21 14:32*	*11/06/21 20:19*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/05/21 14:32*	*11/06/21 20:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**495**		5.00		mg/Kg			11/17/21 14:33	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1529-1	FS26	135 S1+	89
890-1529-1 MS	FS26	127	99
890-1529-1 MSD	FS26	119	89
LCS 880-11533/1-A	Lab Control Sample	93	114
LCSD 880-11533/2-A	Lab Control Sample Dup	101	126
MB 880-11533/5-A	Method Blank	58 S1-	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1529-1	FS26	93	104
890-1531-A-1-C MS	Matrix Spike	99	102
890-1531-A-1-D MSD	Matrix Spike Duplicate	95	92
LCS 880-11610/2-A	Lab Control Sample	77	76
LCSD 880-11610/3-A	Lab Control Sample Dup	72	73
MB 880-11610/1-A	Method Blank	99	112

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11533/5-A
Matrix: Solid
Analysis Batch: 11613

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11533

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:26	11/05/21 19:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:26	11/05/21 19:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:26	11/05/21 19:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:26	11/05/21 19:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:26	11/05/21 19:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:26	11/05/21 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*58*	*S1-*	*70 - 130*	*11/05/21 11:26*	*11/05/21 19:58*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/05/21 11:26*	*11/05/21 19:58*	*1*

Lab Sample ID: LCS 880-11533/1-A
Matrix: Solid
Analysis Batch: 11613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11533

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09979		mg/Kg		100	70 - 130		
Toluene			0.100	0.08147		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.09528		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.2107		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1005		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-11533/2-A
Matrix: Solid
Analysis Batch: 11613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11533

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1100		mg/Kg		110	70 - 130	10	35
Toluene			0.100	0.1002		mg/Kg		100	70 - 130	21	35
Ethylbenzene			0.100	0.1051		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2338		mg/Kg		117	70 - 130	10	35
o-Xylene			0.100	0.1126		mg/Kg		113	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*

Lab Sample ID: 890-1529-1 MS
Matrix: Solid
Analysis Batch: 11613

Client Sample ID: FS26
Prep Type: Total/NA
Prep Batch: 11533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.101	0.06653	F1	mg/Kg		66	70 - 130		
Toluene	<0.00199	U F1	0.101	0.06412	F1	mg/Kg		64	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1529-1 MS
Matrix: Solid
Analysis Batch: 11613

Client Sample ID: FS26
Prep Type: Total/NA
Prep Batch: 11533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.101	0.05055	F1	mg/Kg		50	70 - 130
m-Xylene & p-Xylene	0.0116	F1	0.202	0.1200	F1	mg/Kg		54	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.06381	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-1529-1 MSD
Matrix: Solid
Analysis Batch: 11613

Client Sample ID: FS26
Prep Type: Total/NA
Prep Batch: 11533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.05642	F1	mg/Kg		57	70 - 130	16	35
Toluene	<0.00199	U F1	0.0998	0.05788	F1	mg/Kg		58	70 - 130	10	35
Ethylbenzene	<0.00199	U F1	0.0998	0.04113	F1	mg/Kg		41	70 - 130	21	35
m-Xylene & p-Xylene	0.0116	F1	0.200	0.1091	F1	mg/Kg		49	70 - 130	10	35
o-Xylene	<0.00199	U F1	0.0998	0.05762	F1	mg/Kg		57	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11610/1-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11610

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 14:32	11/06/21 12:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 14:32	11/06/21 12:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 14:32	11/06/21 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*11/05/21 14:32*	*11/06/21 12:08*	*1*
o-Terphenyl	*112*		*70 - 130*	*11/05/21 14:32*	*11/06/21 12:08*	*1*

Lab Sample ID: LCS 880-11610/2-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11610

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1096		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)			1000	834.8		mg/Kg		83	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-11610/2-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11610

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: LCSD 880-11610/3-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11610

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	865.6	*1	mg/Kg		87	70 - 130	23	20
Diesel Range Organics (Over C10-C28)			1000	747.6		mg/Kg		75	70 - 130	11	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-1531-A-1-C MS
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	997	1170		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1044		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-1531-A-1-D MSD
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11610

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	1000	1283		mg/Kg		128	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	969.9		mg/Kg		97	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	92		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11674/1-A
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/21 12:28	1

Lab Sample ID: LCS 880-11674/2-A
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-11674/3-A
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	266.8		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-1529-1 MS
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: FS26
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	495		250	740.4		mg/Kg		98	90 - 110		

Lab Sample ID: 890-1529-1 MSD
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: FS26
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	495		250	740.2		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

GC VOA

Prep Batch: 11533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Total/NA	Solid	5035	
MB 880-11533/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11533/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11533/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1529-1 MS	FS26	Total/NA	Solid	5035	
890-1529-1 MSD	FS26	Total/NA	Solid	5035	

Analysis Batch: 11613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Total/NA	Solid	8021B	11533
MB 880-11533/5-A	Method Blank	Total/NA	Solid	8021B	11533
LCS 880-11533/1-A	Lab Control Sample	Total/NA	Solid	8021B	11533
LCSD 880-11533/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11533
890-1529-1 MS	FS26	Total/NA	Solid	8021B	11533
890-1529-1 MSD	FS26	Total/NA	Solid	8021B	11533

Analysis Batch: 11890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Total/NA	Solid	8015NM Prep	
MB 880-11610/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11610/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1531-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1531-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Total/NA	Solid	8015B NM	11610
MB 880-11610/1-A	Method Blank	Total/NA	Solid	8015B NM	11610
LCS 880-11610/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11610
LCSD 880-11610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11610
890-1531-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	11610
890-1531-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11610

Analysis Batch: 12008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Soluble	Solid	DI Leach	
MB 880-11674/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11674/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11674/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

HPLC/IC (Continued)

Leach Batch: 11674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1 MS	FS26	Soluble	Solid	DI Leach	
890-1529-1 MSD	FS26	Soluble	Solid	DI Leach	

Analysis Batch: 12052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-1	FS26	Soluble	Solid	300.0	11674
MB 880-11674/1-A	Method Blank	Soluble	Solid	300.0	11674
LCS 880-11674/2-A	Lab Control Sample	Soluble	Solid	300.0	11674
LCSD 880-11674/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11674
890-1529-1 MS	FS26	Soluble	Solid	300.0	11674
890-1529-1 MSD	FS26	Soluble	Solid	300.0	11674

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1529-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: FS26 Lab Sample ID: 890-1529-1

Date Collected: 11/01/21 13:25 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11533	11/05/21 11:26	MR	XEN MID
Total/NA	Analysis	8021B		1	11613	11/05/21 20:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12008	11/11/21 14:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11610	11/05/21 14:32	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/06/21 20:19	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 14:33	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1529-1
Project/Site: Ross Ranch 6 SDG: TE0129159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1529-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1529-1
SDG: TE0129159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1529-1	FS26	Solid	11/01/21 13:25	11/04/21 08:33	4

Page 690 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	1.0/0.6	Thermometer ID	
Received Intact:	Yes No	IR-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS26	S	11/1/2021	1325	4'	1	X	X	X

890-1529 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

COMPOSITE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-4-21 / 4:00	2			11-4-21 0833
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 691 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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11/17/2021

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1529-1
Address: 1211 W Florida Ave,	Due Date Requested: 11/11/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS26 (890-1529-1)	11/1/21	13 25 Mountain		Solid			X	X	X	X	X	1	

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 compliance to Eurofins Xenco LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1	Clue Cat 11-4-21			Kramer	11.5.21	
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time 1304	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4 6/4-7

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1529-1
SDG Number: TE0129159

Login Number: 1529
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1529-1
SDG Number: TE0129159

Login Number: 1529
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1532-2
Laboratory Sample Delivery Group: te012929159
Client Project/Site: Ross Ranch 6

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/8/2021 4:29:21 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1532-2
SDG: te012929159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 10
QC Sample Results 11
QC Association Summary 14
Lab Chronicle 16
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 24

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1532-2
Project/Site: Ross Ranch 6 SDG: te012929159

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Job ID: 890-1532-2

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1532-2

Receipt
The samples were received on 11/4/2021 8:33 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 0.8°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
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-11589 and analytical batch 880-11624 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Client Sample ID: FS27

Lab Sample ID: 890-1532-1
Matrix: Solid
Date Collected: 10/22/21 10:29
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 16:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 16:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 16:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/05/21 09:00	11/05/21 16:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 16:11	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/05/21 09:00	11/05/21 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/05/21 09:00*	*11/05/21 16:11*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/05/21 09:00*	*11/05/21 16:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/05/21 13:34	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/05/21 13:34	11/07/21 00:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		11/05/21 13:34	11/07/21 00:26	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/05/21 13:34	11/07/21 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/05/21 13:34*	*11/07/21 00:26*	*1*
o-Terphenyl	*120*		*70 - 130*	*11/05/21 13:34*	*11/07/21 00:26*	*1*

Client Sample ID: FS28

Lab Sample ID: 890-1532-2
Matrix: Solid
Date Collected: 10/22/21 10:40
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 16:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 16:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 16:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/05/21 09:00	11/05/21 16:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 16:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/05/21 09:00	11/05/21 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/05/21 09:00*	*11/05/21 16:32*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/05/21 09:00*	*11/05/21 16:32*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Client Sample ID: FS28

Lab Sample ID: 890-1532-2
Matrix: Solid
Date Collected: 10/22/21 10:40
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/05/21 13:34	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 13:34	11/07/21 00:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		11/05/21 13:34	11/07/21 00:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 13:34	11/07/21 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/05/21 13:34*	*11/07/21 00:46*	*1*
o-Terphenyl	*116*		*70 - 130*	*11/05/21 13:34*	*11/07/21 00:46*	*1*

Client Sample ID: FS31

Lab Sample ID: 890-1532-3
Matrix: Solid
Date Collected: 10/22/21 14:30
Date Received: 11/04/21 08:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/05/21 09:00	11/05/21 17:55	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/05/21 09:00	11/05/21 17:55	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/05/21 09:00	11/05/21 17:55	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/05/21 09:00	11/05/21 17:55	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/05/21 09:00	11/05/21 17:55	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/05/21 09:00	11/05/21 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/05/21 09:00*	*11/05/21 17:55*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/05/21 09:00*	*11/05/21 17:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/05/21 13:34	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 13:34	11/07/21 01:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		11/05/21 13:34	11/07/21 01:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 13:34	11/07/21 01:06	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1532-2
Project/Site: Ross Ranch 6 SDG: te012929159

Client Sample ID: FS31 — Lab Sample ID: 890-1532-3

Date Collected: 10/22/21 14:30 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	11/05/21 13:34	11/07/21 01:06	1
o-Terphenyl	109		70 - 130	11/05/21 13:34	11/07/21 01:06	1

Client Sample ID: FS32 — Lab Sample ID: 890-1532-4

Date Collected: 10/22/21 14:32 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/05/21 09:00	11/05/21 18:15	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/05/21 09:00	11/05/21 18:15	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/05/21 09:00	11/05/21 18:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/05/21 09:00	11/05/21 18:15	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/05/21 09:00	11/05/21 18:15	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/05/21 09:00	11/05/21 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	11/05/21 09:00	11/05/21 18:15	1
1,4-Difluorobenzene (Surr)	100		70 - 130	11/05/21 09:00	11/05/21 18:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/05/21 13:34	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.7**		49.9	mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/05/21 13:34	11/07/21 01:26	1
Diesel Range Organics (Over C10-C28)	**52.7**	***1**	49.9	mg/Kg		11/05/21 13:34	11/07/21 01:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/05/21 13:34	11/07/21 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	11/05/21 13:34	11/07/21 01:26	1
o-Terphenyl	106		70 - 130	11/05/21 13:34	11/07/21 01:26	1

Client Sample ID: SW25 — Lab Sample ID: 890-1532-5

Date Collected: 10/22/21 12:53 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/05/21 09:00	11/05/21 18:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/05/21 09:00	11/05/21 18:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/05/21 09:00	11/05/21 18:35	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/05/21 09:00	11/05/21 18:35	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Client Sample ID: SW25

Lab Sample ID: 890-1532-5
Matrix: Solid
Date Collected: 10/22/21 12:53
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 18:35	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/05/21 09:00	11/05/21 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*11/05/21 09:00*	*11/05/21 18:35*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/05/21 09:00*	*11/05/21 18:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/05/21 13:34	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 13:34	11/07/21 01:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		11/05/21 13:34	11/07/21 01:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 13:34	11/07/21 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/05/21 13:34*	*11/07/21 01:46*	*1*
o-Terphenyl	*115*		*70 - 130*	*11/05/21 13:34*	*11/07/21 01:46*	*1*

Client Sample ID: SW26

Lab Sample ID: 890-1532-6
Matrix: Solid
Date Collected: 10/22/21 13:12
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 18:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 18:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 18:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/05/21 09:00	11/05/21 18:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/05/21 09:00	11/05/21 18:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/05/21 09:00	11/05/21 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*11/05/21 09:00*	*11/05/21 18:56*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*11/05/21 09:00*	*11/05/21 18:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/08/21 17:06	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Client Sample ID: SW26

Date Collected: 10/22/21 13:12
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Lab Sample ID: 890-1532-6

Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 13:34	11/07/21 02:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		11/05/21 13:34	11/07/21 02:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 13:34	11/07/21 02:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*11/05/21 13:34*	*11/07/21 02:01*	*1*
o-Terphenyl	*107*		*70 - 130*	*11/05/21 13:34*	*11/07/21 02:01*	*1*

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1532-1	FS27	116	99
890-1532-2	FS28	116	94
890-1532-3	FS31	117	94
890-1532-4	FS32	123	100
890-1532-5	SW25	129	107
890-1532-6	SW26	129	77
890-1537-A-1-B MS	Matrix Spike	111	103
890-1537-A-1-C MSD	Matrix Spike Duplicate	119	102
LCS 880-11475/1-A	Lab Control Sample	107	106
LCSD 880-11475/2-A	Lab Control Sample Dup	103	106
MB 880-11475/5-A	Method Blank	110	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
820-2486-A-1-C MS	Matrix Spike	102	104
820-2486-A-1-D MSD	Matrix Spike Duplicate	98	99
890-1532-1	FS27	106	120
890-1532-2	FS28	106	116
890-1532-3	FS31	98	109
890-1532-4	FS32	99	106
890-1532-5	SW25	106	115
890-1532-6	SW26	99	107
LCS 880-11589/2-A	Lab Control Sample	80	83
LCSD 880-11589/3-A	Lab Control Sample Dup	74	76
MB 880-11589/1-A	Method Blank	108	130

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11475/5-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11475

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/05/21 09:00*	*11/05/21 12:28*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/05/21 09:00*	*11/05/21 12:28*	*1*

Lab Sample ID: LCS 880-11475/1-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11475

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08097		mg/Kg		81	70 - 130		
Toluene			0.100	0.07362		mg/Kg		74	70 - 130		
Ethylbenzene			0.100	0.07723		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1612		mg/Kg		81	70 - 130		
o-Xylene			0.100	0.08159		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-11475/2-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11475

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08404		mg/Kg		84	70 - 130	4	35
Toluene			0.100	0.07617		mg/Kg		76	70 - 130	3	35
Ethylbenzene			0.100	0.07848		mg/Kg		78	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1634		mg/Kg		82	70 - 130	1	35
o-Xylene			0.100	0.08158		mg/Kg		82	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1537-A-1-B MS
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0998	0.09141		mg/Kg		91	70 - 130		
Toluene	<0.00199	U	0.0998	0.08545		mg/Kg		85	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1537-A-1-B MS
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.08783		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1844		mg/Kg		92	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09241		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1537-A-1-C MSD
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.08206		mg/Kg		82	70 - 130	11	35
Toluene	<0.00199	U	0.0996	0.07797		mg/Kg		78	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.0996	0.08478		mg/Kg		85	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1813		mg/Kg		91	70 - 130	2	35
o-Xylene	<0.00199	U	0.0996	0.09187		mg/Kg		92	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11589/1-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11589

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 13:34	11/06/21 21:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 13:34	11/06/21 21:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 13:34	11/06/21 21:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*11/05/21 13:34*	*11/06/21 21:43*	*1*
o-Terphenyl	*130*		*70 - 130*	*11/05/21 13:34*	*11/06/21 21:43*	*1*

Lab Sample ID: LCS 880-11589/2-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11589

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	933.7		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)			1000	889.8		mg/Kg		89	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-11589/2-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11589

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: LCSD 880-11589/3-A
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11589

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	877.0		mg/Kg		88	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	709.3	*1	mg/Kg		71	70 - 130	23	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	74		70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: 820-2486-A-1-C MS
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11589

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1216		mg/Kg		122	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *1	997	1047		mg/Kg		104	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 820-2486-A-1-D MSD
Matrix: Solid
Analysis Batch: 11624

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11589

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1283		mg/Kg		128	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	1014		mg/Kg		100	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	99		70 - 130

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

GC VOA

Prep Batch: 11475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-1	FS27	Total/NA	Solid	5035	
890-1532-2	FS28	Total/NA	Solid	5035	
890-1532-3	FS31	Total/NA	Solid	5035	
890-1532-4	FS32	Total/NA	Solid	5035	
890-1532-5	SW25	Total/NA	Solid	5035	
890-1532-6	SW26	Total/NA	Solid	5035	
MB 880-11475/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11475/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11475/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1537-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1537-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-1	FS27	Total/NA	Solid	8021B	11475
890-1532-2	FS28	Total/NA	Solid	8021B	11475
890-1532-3	FS31	Total/NA	Solid	8021B	11475
890-1532-4	FS32	Total/NA	Solid	8021B	11475
890-1532-5	SW25	Total/NA	Solid	8021B	11475
890-1532-6	SW26	Total/NA	Solid	8021B	11475
MB 880-11475/5-A	Method Blank	Total/NA	Solid	8021B	11475
LCS 880-11475/1-A	Lab Control Sample	Total/NA	Solid	8021B	11475
LCSD 880-11475/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11475
890-1537-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	11475
890-1537-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11475

Analysis Batch: 11588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-1	FS27	Total/NA	Solid	Total BTEX	
890-1532-2	FS28	Total/NA	Solid	Total BTEX	
890-1532-3	FS31	Total/NA	Solid	Total BTEX	
890-1532-4	FS32	Total/NA	Solid	Total BTEX	
890-1532-5	SW25	Total/NA	Solid	Total BTEX	

Analysis Batch: 11768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-6	SW26	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-1	FS27	Total/NA	Solid	8015NM Prep	
890-1532-2	FS28	Total/NA	Solid	8015NM Prep	
890-1532-3	FS31	Total/NA	Solid	8015NM Prep	
890-1532-4	FS32	Total/NA	Solid	8015NM Prep	
890-1532-5	SW25	Total/NA	Solid	8015NM Prep	
890-1532-6	SW26	Total/NA	Solid	8015NM Prep	
MB 880-11589/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11589/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11589/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

GC Semi VOA (Continued)

Prep Batch: 11589 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-2486-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
820-2486-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-1	FS27	Total/NA	Solid	8015 NM	
890-1532-2	FS28	Total/NA	Solid	8015 NM	
890-1532-3	FS31	Total/NA	Solid	8015 NM	
890-1532-4	FS32	Total/NA	Solid	8015 NM	
890-1532-5	SW25	Total/NA	Solid	8015 NM	
890-1532-6	SW26	Total/NA	Solid	8015 NM	

Analysis Batch: 11624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1532-1	FS27	Total/NA	Solid	8015B NM	11589
890-1532-2	FS28	Total/NA	Solid	8015B NM	11589
890-1532-3	FS31	Total/NA	Solid	8015B NM	11589
890-1532-4	FS32	Total/NA	Solid	8015B NM	11589
890-1532-5	SW25	Total/NA	Solid	8015B NM	11589
890-1532-6	SW26	Total/NA	Solid	8015B NM	11589
MB 880-11589/1-A	Method Blank	Total/NA	Solid	8015B NM	11589
LCS 880-11589/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11589
LCSD 880-11589/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11589
820-2486-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	11589
820-2486-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11589

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1532-2
Project/Site: Ross Ranch 6 SDG: te012929159

Client Sample ID: FS27 Lab Sample ID: 890-1532-1

Date Collected: 10/22/21 10:29 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 16:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11588	11/05/21 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/07/21 00:26	AJ	XEN MID

Client Sample ID: FS28 Lab Sample ID: 890-1532-2

Date Collected: 10/22/21 10:40 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 16:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11588	11/05/21 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/07/21 00:46	AJ	XEN MID

Client Sample ID: FS31 Lab Sample ID: 890-1532-3

Date Collected: 10/22/21 14:30 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 17:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11588	11/05/21 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/07/21 01:06	AJ	XEN MID

Client Sample ID: FS32 Lab Sample ID: 890-1532-4

Date Collected: 10/22/21 14:32 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 18:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11588	11/05/21 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/07/21 01:26	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Client Sample ID: SW25

Lab Sample ID: 890-1532-5
Matrix: Solid
Date Collected: 10/22/21 12:53
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 18:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11588	11/05/21 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/07/21 01:46	AJ	XEN MID

Client Sample ID: SW26

Lab Sample ID: 890-1532-6
Matrix: Solid
Date Collected: 10/22/21 13:12
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 18:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11768	11/08/21 17:06	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11624	11/07/21 02:01	AJ	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1532-2
SDG: te012929159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1532-1	FS27	Solid	10/22/21 10:29	11/04/21 08:33	4
890-1532-2	FS28	Solid	10/22/21 10:40	11/04/21 08:33	4
890-1532-3	FS31	Solid	10/22/21 14:30	11/04/21 08:33	2
890-1532-4	FS32	Solid	10/22/21 14:32	11/04/21 08:33	2
890-1532-5	SW25	Solid	10/22/21 12:53	11/04/21 08:33	0 - 4
890-1532-6	SW26	Solid	10/22/21 13:12	11/04/21 08:33	0 - 4

Page 714 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0 / 0.5	Thermometer ID	
Received Intact:	(Yes) No	TWN-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST



Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS27	S	10/22/2021	1029	4'	1	X	X	X	COMPOSITE
FS28	S	10/22/2021	1040	4'	1	X	X	X	COMPOSITE
~~FS32~~ FS31	S	10/22/2021	1430	2'	1	X	X	X	COMPOSITE
~~FS33~~ FS32	S	10/22/2021	1432	2'	1	X	X	X	COMPOSITE
SW25	S	10/22/2021	1253	0-4'	1	X	X	X	COMPOSITE
SW26	S	10/22/2021	1312	0-4'	1	X	X	X	COMPOSITE

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-4-21 9:00	2		11.4.21 0833
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Page 21 of 25

11/8/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1532-2
Address: 1211 W Florida Ave	Due Date Requested: 11/5/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL M Hexane
B NaOH N None
C - Zn Acetate O - AsNaO2
D Nitric Acid P Na2O4S
E NaHSO4 Q Na2SO3
F MeOH R Na2S2O3
G Amchlor S H2SO4
H Ascorbic Acid T TSP Dodecahydrate
I Ice U Acetone
J DI Water V MCAA
K - EDTA W pH 4-5
L EDA Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
FS27 (890-1532-1)	10/22/21	10 29 Mountain		Solid			X	X	X	X	1	
FS28 (890-1532-2)	10/22/21	10 40 Mountain		Solid			X	X	X	X	1	
FS31 (890-1532-3)	10/22/21	14 30 Mountain		Solid			X	X	X	X	1	
FS32 (890-1532-4)	10/22/21	14 32 Mountain		Solid			X	X	X	X	1	
SW25 (890-1532-5)	10/22/21	12 53 Mountain		Solid			X	X	X	X	1	
SW26 (890-1532-6)	10/22/21	13 12 Mountain		Solid			X	X	X	X	1	

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.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:
Relinquished by: Clint Cuffo 11-4-21	Date/Time:	Company	Received by: Kramer Date/Time: 11.5.21 Company
Relinquished by:	Date/Time	Company	Received by: Date/Time: 1304 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No
Cooler Temperature(s) °C and Other Remarks	4.6/4.7

Ver: 06/08/2021

Page 715 of 799
Received by OCD: 3/4/2022 1:28:26 PM
Page 22 of 25
11/8/2021
Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1532-1
Address: 1211 W Florida Ave ,	Due Date Requested: 11/10/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	Total Number of containers	Special Instructions/Note
			Preservation Code:						
FS27 (890-1532-1)	10/22/21	10 29 Mountain		Solid			X	1	
FS28 (890-1532-2)	10/22/21	10 40 Mountain		Solid			X	1	
FS31 (890-1532-3)	10/22/21	14 30 Mountain		Solid			X	1	
FS32 (890-1532-4)	10/22/21	14 32 Mountain		Solid			X	1	
SW25 (890-1532-5)	10/22/21	12 53 Mountain		Solid			X	1	
SW26 (890-1532-6)	10/22/21	13 12 Mountain		Solid			X	1	

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.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Clue Cat 11-4-21			KRAMER	11521	
2					1304	
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.6/4.7

Ver: 06/08/2021

Page 716 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/8/2021
Page 23 of 25
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1532-2
SDG Number: te012929159

Login Number: 1532
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1532-2
SDG Number: te012929159

Login Number: 1532
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1530-1
Laboratory Sample Delivery Group: TE0129159
Client Project/Site: Ross Ranch 6

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/17/2021 4:22:35 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

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www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1530-1
SDG: TE0129159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 14
QC Sample Results 15
QC Association Summary 20
Lab Chronicle 24
Certification Summary 28
Method Summary 29
Sample Summary 30
Chain of Custody 31
Receipt Checklists 35

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Qualifiers

GC VOA

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
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Job ID: 890-1530-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1530-1

Receipt
The samples were received on 11/4/2021 8:33 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 0.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11532 and analytical batch 880-11601 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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Client Sample ID: FS29

Lab Sample ID: 890-1530-1
Matrix: Solid
Date Collected: 11/03/21 12:15
Date Received: 11/04/21 08:33
Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 08:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 08:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 08:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:23	11/06/21 08:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 08:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:23	11/06/21 08:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/05/21 11:23*	*11/06/21 08:25*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/05/21 11:23*	*11/06/21 08:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 13:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 13:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*11/05/21 15:11*	*11/06/21 13:12*	*1*
o-Terphenyl	*107*		*70 - 130*	*11/05/21 15:11*	*11/06/21 13:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**145**		4.99		mg/Kg			11/17/21 14:55	1

Client Sample ID: FS30

Lab Sample ID: 890-1530-2
Matrix: Solid
Date Collected: 11/03/21 12:13
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 10:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 10:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/05/21 11:23*	*11/06/21 10:14*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: FS30 — Lab Sample ID: 890-1530-2

Date Collected: 11/03/21 12:13 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*11/05/21 11:23*	*11/06/21 10:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 14:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 14:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*11/05/21 15:11*	*11/06/21 14:15*	*1*
o-Terphenyl	*99*		*70 - 130*	*11/05/21 15:11*	*11/06/21 14:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.5**		4.95	mg/Kg			11/17/21 15:02	1

Client Sample ID: FS33 — Lab Sample ID: 890-1530-3

Date Collected: 11/03/21 14:39 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/05/21 11:23	11/06/21 10:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/05/21 11:23	11/06/21 10:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/05/21 11:23	11/06/21 10:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/05/21 11:23	11/06/21 10:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/05/21 11:23	11/06/21 10:35	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/05/21 11:23	11/06/21 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*11/05/21 11:23*	*11/06/21 10:35*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/05/21 11:23*	*11/06/21 10:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/11/21 15:00	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: FS33 — Lab Sample ID: 890-1530-3

Date Collected: 11/03/21 14:39 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 14:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 14:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*11/05/21 15:11*	*11/06/21 14:36*	*1*
o-Terphenyl	*101*		*70 - 130*	*11/05/21 15:11*	*11/06/21 14:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.2**		4.97		mg/Kg			11/17/21 15:25	1

Client Sample ID: FS34 — Lab Sample ID: 890-1530-4

Date Collected: 11/03/21 14:56 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 10:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 10:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/05/21 11:23*	*11/06/21 10:55*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/05/21 11:23*	*11/06/21 10:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 14:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 14:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*11/05/21 15:11*	*11/06/21 14:57*	*1*
o-Terphenyl	*78*		*70 - 130*	*11/05/21 15:11*	*11/06/21 14:57*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Client Sample ID: FS34

Lab Sample ID: 890-1530-4
Matrix: Solid
Date Collected: 11/03/21 14:56
Date Received: 11/04/21 08:33
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**251**		4.95		mg/Kg			11/17/21 15:32	1

Client Sample ID: FS35

Lab Sample ID: 890-1530-5
Matrix: Solid
Date Collected: 11/03/21 10:10
Date Received: 11/04/21 08:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 11:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 11:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 11:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 11:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 11:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 11:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/05/21 11:23*	*11/06/21 11:16*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/05/21 11:23*	*11/06/21 11:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.0**		49.8		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/05/21 15:11	11/06/21 15:19	1
Diesel Range Organics (Over C10-C28)	**53.0**		49.8		mg/Kg		11/05/21 15:11	11/06/21 15:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/05/21 15:11	11/06/21 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*63*	*S1-*	*70 - 130*	*11/05/21 15:11*	*11/06/21 15:19*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*11/05/21 15:11*	*11/06/21 15:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.5**		4.95		mg/Kg			11/17/21 15:39	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Client Sample ID: FS36

Lab Sample ID: 890-1530-6
Matrix: Solid
Date Collected: 11/03/21 10:15
Date Received: 11/04/21 08:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:36	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:36	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:36	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/05/21 11:23	11/06/21 11:36	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:36	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/05/21 11:23	11/06/21 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*11/05/21 11:23*	*11/06/21 11:36*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*11/05/21 11:23*	*11/06/21 11:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.1**		50.0		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 15:40	1
Diesel Range Organics (Over C10-C28)	**70.1**		50.0		mg/Kg		11/05/21 15:11	11/06/21 15:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*11/05/21 15:11*	*11/06/21 15:40*	*1*
o-Terphenyl	*75*		*70 - 130*	*11/05/21 15:11*	*11/06/21 15:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.7**		5.00		mg/Kg			11/17/21 15:47	1

Client Sample ID: FS37

Lab Sample ID: 890-1530-7
Matrix: Solid
Date Collected: 11/03/21 10:20
Date Received: 11/04/21 08:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:56	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:56	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:56	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/05/21 11:23	11/06/21 11:56	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/05/21 11:23	11/06/21 11:56	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/05/21 11:23	11/06/21 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*11/05/21 11:23*	*11/06/21 11:56*	*1*

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: FS37 — Lab Sample ID: 890-1530-7

Date Collected: 11/03/21 10:20 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/05/21 11:23*	*11/06/21 11:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.9**		49.8	mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/05/21 15:11	11/06/21 16:01	1
Diesel Range Organics (Over C10-C28)	**69.9**		49.8	mg/Kg		11/05/21 15:11	11/06/21 16:01	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/05/21 15:11	11/06/21 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*85*		*70 - 130*	*11/05/21 15:11*	*11/06/21 16:01*	*1*
o-Terphenyl	*88*		*70 - 130*	*11/05/21 15:11*	*11/06/21 16:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.1**		5.00	mg/Kg			11/17/21 15:54	1

Client Sample ID: SW27 — Lab Sample ID: 890-1530-8

Date Collected: 11/03/21 15:28 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 12:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 12:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 12:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/05/21 11:23	11/06/21 12:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/05/21 11:23	11/06/21 12:17	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/05/21 11:23	11/06/21 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/05/21 11:23*	*11/06/21 12:17*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*11/05/21 11:23*	*11/06/21 12:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/11/21 15:00	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: SW27 Lab Sample ID: 890-1530-8

Date Collected: 11/03/21 15:28 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 16:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 16:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*11/05/21 15:11*	*11/06/21 16:23*	*1*
o-Terphenyl	*78*		*70 - 130*	*11/05/21 15:11*	*11/06/21 16:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62.4**		5.00		mg/Kg			11/17/21 16:01	1

Client Sample ID: SW28 Lab Sample ID: 890-1530-9

Date Collected: 11/03/21 15:25 **Matrix: Solid**
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 12:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 12:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 12:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 12:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 12:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/05/21 11:23*	*11/06/21 12:37*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/05/21 11:23*	*11/06/21 12:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 16:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 16:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*11/05/21 15:11*	*11/06/21 16:45*	*1*
o-Terphenyl	*72*		*70 - 130*	*11/05/21 15:11*	*11/06/21 16:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Client Sample ID: SW28

Lab Sample ID: 890-1530-9
Matrix: Solid
Date Collected: 11/03/21 15:25
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.7		5.02		mg/Kg			11/17/21 16:09	1

Client Sample ID: SW31

Lab Sample ID: 890-1530-10
Matrix: Solid
Date Collected: 11/03/21 15:10
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 12:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 12:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 12:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 12:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/05/21 11:23	11/06/21 12:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/05/21 11:23	11/06/21 12:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/05/21 11:23*	*11/06/21 12:58*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/05/21 11:23*	*11/06/21 12:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 17:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 17:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*11/05/21 15:11*	*11/06/21 17:06*	*1*
o-Terphenyl	*83*		*70 - 130*	*11/05/21 15:11*	*11/06/21 17:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.9		4.95		mg/Kg			11/11/21 20:16	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Client Sample ID: SW32

Date Collected: 11/03/21 15:22
Date Received: 11/04/21 08:33
Sample Depth: 0 - 4

Lab Sample ID: 890-1530-11

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 13:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 13:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 13:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 13:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 13:18	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 11:23	11/06/21 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/05/21 11:23*	*11/06/21 13:18*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/05/21 11:23*	*11/06/21 13:18*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/10/21 11:29	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.4**		49.9		mg/Kg			11/11/21 15:00	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**53.4**		49.9		mg/Kg		11/05/21 15:11	11/06/21 17:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 17:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/05/21 15:11	11/06/21 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*11/05/21 15:11*	*11/06/21 17:49*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/05/21 15:11*	*11/06/21 17:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.3**		5.02		mg/Kg			11/11/21 20:38	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1530-1	FS29	124	106
890-1530-2	FS30	120	104
890-1530-3	FS33	127	98
890-1530-4	FS34	124	103
890-1530-5	FS35	123	108
890-1530-6	FS36	81	74
890-1530-7	FS37	118	103
890-1530-8	SW27	117	95
890-1530-9	SW28	124	106
890-1530-10	SW31	117	102
890-1530-11	SW32	119	107
890-1533-A-1-C MSD	Matrix Spike Duplicate	116	100
890-1533-A-1-E MS	Matrix Spike	121	100
LCS 880-11532/1-A	Lab Control Sample	109	105
LCSD 880-11532/2-A	Lab Control Sample Dup	116	102
MB 880-11531/5-A	Method Blank	123	110
MB 880-11532/5-A	Method Blank	120	107

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1530-1	FS29	92	107
890-1530-1 MS	FS29	110	99
890-1530-1 MSD	FS29	101	91
890-1530-2	FS30	91	99
890-1530-3	FS33	94	101
890-1530-4	FS34	73	78
890-1530-5	FS35	63 S1-	67 S1-
890-1530-6	FS36	73	75
890-1530-7	FS37	85	88
890-1530-8	SW27	72	78
890-1530-9	SW28	65 S1-	72
890-1530-10	SW31	72	83
890-1530-11	SW32	95	105
LCS 880-11611/2-A	Lab Control Sample	98	91
LCSD 880-11611/3-A	Lab Control Sample Dup	111	98
MB 880-11611/1-A	Method Blank	107	121

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11531/5-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:19	11/05/21 17:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:19	11/05/21 17:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:21*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/05/21 11:19*	*11/05/21 17:21*	*1*

Lab Sample ID: MB 880-11532/5-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11532

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 11:23	11/06/21 04:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 11:23	11/06/21 04:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/05/21 11:23*	*11/06/21 04:53*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*11/05/21 11:23*	*11/06/21 04:53*	*1*

Lab Sample ID: LCS 880-11532/1-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11532

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09671		mg/Kg		97	70 - 130		
Toluene			0.100	0.09834		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.09981		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.1958		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.09726		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-11532/2-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11532

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09457		mg/Kg		95	70 - 130	2	35

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-11532/2-A
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11532

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.09793		mg/Kg		98	70 - 130	0	35
Ethylbenzene			0.100	0.1006		mg/Kg		101	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1981		mg/Kg		99	70 - 130	1	35
o-Xylene			0.100	0.09696		mg/Kg		97	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-1533-A-1-C MSD
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11532

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1 F2	0.0994	0.03443	F1 F2	mg/Kg		34	70 - 130	55	35
Toluene	<0.00198	U F1 F2	0.0994	0.04255	F1 F2	mg/Kg		42	70 - 130	51	35
Ethylbenzene	<0.00198	U F1 F2	0.0994	0.04437	F1 F2	mg/Kg		45	70 - 130	41	35
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.199	0.08392	F1 F2	mg/Kg		42	70 - 130	44	35
o-Xylene	<0.00198	U F1 F2	0.0994	0.04221	F1 F2	mg/Kg		42	70 - 130	44	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-1533-A-1-E MS
Matrix: Solid
Analysis Batch: 11601

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11532

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F1 F2	0.0996	0.06079	F1	mg/Kg		60	70 - 130
Toluene	<0.00198	U F1 F2	0.0996	0.07168		mg/Kg		71	70 - 130
Ethylbenzene	<0.00198	U F1 F2	0.0996	0.06706	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1 F2	0.199	0.1313	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00198	U F1 F2	0.0996	0.06616	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11611/1-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11611

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 12:08	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-11611/1-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11611

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 12:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/05/21 15:11	11/06/21 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*11/05/21 15:11*	*11/06/21 12:08*	*1*
o-Terphenyl	*121*		*70 - 130*	*11/05/21 15:11*	*11/06/21 12:08*	*1*

Lab Sample ID: LCS 880-11611/2-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11611

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	908.8		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	890.7		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: LCSD 880-11611/3-A
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11611

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	768.0		mg/Kg		77	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	966.3		mg/Kg		97	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 890-1530-1 MS
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: FS29
Prep Type: Total/NA
Prep Batch: 11611

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1153		mg/Kg		116	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1066		mg/Kg		105	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1530-1 MSD
Matrix: Solid
Analysis Batch: 11626

Client Sample ID: FS29
Prep Type: Total/NA
Prep Batch: 11611

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1224		mg/Kg		122	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	958.9		mg/Kg		94	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11674/1-A
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/21 12:28	1

Lab Sample ID: LCS 880-11674/2-A
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-11674/3-A
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	266.8		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-1529-A-1-K MS
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	495		250	740.4		mg/Kg		98	90 - 110		

Lab Sample ID: 890-1529-A-1-L MSD
Matrix: Solid
Analysis Batch: 12052

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	495		250	740.2		mg/Kg		98	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-11675/1-A
Matrix: Solid
Analysis Batch: 12053

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/11/21 19:54	1

Lab Sample ID: LCS 880-11675/2-A
Matrix: Solid
Analysis Batch: 12053

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-11675/3-A
Matrix: Solid
Analysis Batch: 12053

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	248.0		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-1530-10 MS
Matrix: Solid
Analysis Batch: 12053

Client Sample ID: SW31
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	23.9		248	256.0		mg/Kg		94	90 - 110		

Lab Sample ID: 890-1530-10 MSD
Matrix: Solid
Analysis Batch: 12053

Client Sample ID: SW31
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	23.9		248	255.8		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

GC VOA

Prep Batch: 11531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11531/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Total/NA	Solid	5035	
890-1530-2	FS30	Total/NA	Solid	5035	
890-1530-3	FS33	Total/NA	Solid	5035	
890-1530-4	FS34	Total/NA	Solid	5035	
890-1530-5	FS35	Total/NA	Solid	5035	
890-1530-6	FS36	Total/NA	Solid	5035	
890-1530-7	FS37	Total/NA	Solid	5035	
890-1530-8	SW27	Total/NA	Solid	5035	
890-1530-9	SW28	Total/NA	Solid	5035	
890-1530-10	SW31	Total/NA	Solid	5035	
890-1530-11	SW32	Total/NA	Solid	5035	
MB 880-11532/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11532/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11532/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1533-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
890-1533-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 11601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Total/NA	Solid	8021B	11532
890-1530-2	FS30	Total/NA	Solid	8021B	11532
890-1530-3	FS33	Total/NA	Solid	8021B	11532
890-1530-4	FS34	Total/NA	Solid	8021B	11532
890-1530-5	FS35	Total/NA	Solid	8021B	11532
890-1530-6	FS36	Total/NA	Solid	8021B	11532
890-1530-7	FS37	Total/NA	Solid	8021B	11532
890-1530-8	SW27	Total/NA	Solid	8021B	11532
890-1530-9	SW28	Total/NA	Solid	8021B	11532
890-1530-10	SW31	Total/NA	Solid	8021B	11532
890-1530-11	SW32	Total/NA	Solid	8021B	11532
MB 880-11531/5-A	Method Blank	Total/NA	Solid	8021B	11531
MB 880-11532/5-A	Method Blank	Total/NA	Solid	8021B	11532
LCS 880-11532/1-A	Lab Control Sample	Total/NA	Solid	8021B	11532
LCSD 880-11532/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11532
890-1533-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11532
890-1533-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	11532

Analysis Batch: 11890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Total/NA	Solid	Total BTEX	
890-1530-2	FS30	Total/NA	Solid	Total BTEX	
890-1530-3	FS33	Total/NA	Solid	Total BTEX	
890-1530-4	FS34	Total/NA	Solid	Total BTEX	
890-1530-5	FS35	Total/NA	Solid	Total BTEX	
890-1530-6	FS36	Total/NA	Solid	Total BTEX	
890-1530-7	FS37	Total/NA	Solid	Total BTEX	
890-1530-8	SW27	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

GC VOA (Continued)

Analysis Batch: 11890 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-9	SW28	Total/NA	Solid	Total BTEX	
890-1530-10	SW31	Total/NA	Solid	Total BTEX	
890-1530-11	SW32	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Total/NA	Solid	8015NM Prep	
890-1530-2	FS30	Total/NA	Solid	8015NM Prep	
890-1530-3	FS33	Total/NA	Solid	8015NM Prep	
890-1530-4	FS34	Total/NA	Solid	8015NM Prep	
890-1530-5	FS35	Total/NA	Solid	8015NM Prep	
890-1530-6	FS36	Total/NA	Solid	8015NM Prep	
890-1530-7	FS37	Total/NA	Solid	8015NM Prep	
890-1530-8	SW27	Total/NA	Solid	8015NM Prep	
890-1530-9	SW28	Total/NA	Solid	8015NM Prep	
890-1530-10	SW31	Total/NA	Solid	8015NM Prep	
890-1530-11	SW32	Total/NA	Solid	8015NM Prep	
MB 880-11611/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11611/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1530-1 MS	FS29	Total/NA	Solid	8015NM Prep	
890-1530-1 MSD	FS29	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Total/NA	Solid	8015B NM	11611
890-1530-2	FS30	Total/NA	Solid	8015B NM	11611
890-1530-3	FS33	Total/NA	Solid	8015B NM	11611
890-1530-4	FS34	Total/NA	Solid	8015B NM	11611
890-1530-5	FS35	Total/NA	Solid	8015B NM	11611
890-1530-6	FS36	Total/NA	Solid	8015B NM	11611
890-1530-7	FS37	Total/NA	Solid	8015B NM	11611
890-1530-8	SW27	Total/NA	Solid	8015B NM	11611
890-1530-9	SW28	Total/NA	Solid	8015B NM	11611
890-1530-10	SW31	Total/NA	Solid	8015B NM	11611
890-1530-11	SW32	Total/NA	Solid	8015B NM	11611
MB 880-11611/1-A	Method Blank	Total/NA	Solid	8015B NM	11611
LCS 880-11611/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11611
LCSD 880-11611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11611
890-1530-1 MS	FS29	Total/NA	Solid	8015B NM	11611
890-1530-1 MSD	FS29	Total/NA	Solid	8015B NM	11611

Analysis Batch: 12045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Total/NA	Solid	8015 NM	
890-1530-2	FS30	Total/NA	Solid	8015 NM	
890-1530-3	FS33	Total/NA	Solid	8015 NM	
890-1530-4	FS34	Total/NA	Solid	8015 NM	
890-1530-5	FS35	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

GC Semi VOA (Continued)

Analysis Batch: 12045 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-6	FS36	Total/NA	Solid	8015 NM	
890-1530-7	FS37	Total/NA	Solid	8015 NM	
890-1530-8	SW27	Total/NA	Solid	8015 NM	
890-1530-9	SW28	Total/NA	Solid	8015 NM	
890-1530-10	SW31	Total/NA	Solid	8015 NM	
890-1530-11	SW32	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Soluble	Solid	DI Leach	
890-1530-2	FS30	Soluble	Solid	DI Leach	
890-1530-3	FS33	Soluble	Solid	DI Leach	
890-1530-4	FS34	Soluble	Solid	DI Leach	
890-1530-5	FS35	Soluble	Solid	DI Leach	
890-1530-6	FS36	Soluble	Solid	DI Leach	
890-1530-7	FS37	Soluble	Solid	DI Leach	
890-1530-8	SW27	Soluble	Solid	DI Leach	
890-1530-9	SW28	Soluble	Solid	DI Leach	
MB 880-11674/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11674/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11674/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1529-A-1-K MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1529-A-1-L MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 11675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-10	SW31	Soluble	Solid	DI Leach	
890-1530-11	SW32	Soluble	Solid	DI Leach	
MB 880-11675/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11675/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11675/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1530-10 MS	SW31	Soluble	Solid	DI Leach	
890-1530-10 MSD	SW31	Soluble	Solid	DI Leach	

Analysis Batch: 12052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-1	FS29	Soluble	Solid	300.0	11674
890-1530-2	FS30	Soluble	Solid	300.0	11674
890-1530-3	FS33	Soluble	Solid	300.0	11674
890-1530-4	FS34	Soluble	Solid	300.0	11674
890-1530-5	FS35	Soluble	Solid	300.0	11674
890-1530-6	FS36	Soluble	Solid	300.0	11674
890-1530-7	FS37	Soluble	Solid	300.0	11674
890-1530-8	SW27	Soluble	Solid	300.0	11674
890-1530-9	SW28	Soluble	Solid	300.0	11674
MB 880-11674/1-A	Method Blank	Soluble	Solid	300.0	11674
LCS 880-11674/2-A	Lab Control Sample	Soluble	Solid	300.0	11674
LCSD 880-11674/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11674
890-1529-A-1-K MS	Matrix Spike	Soluble	Solid	300.0	11674

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

HPLC/IC (Continued)

Analysis Batch: 12052 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1529-A-1-L MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11674

Analysis Batch: 12053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1530-10	SW31	Soluble	Solid	300.0	11675
890-1530-11	SW32	Soluble	Solid	300.0	11675
MB 880-11675/1-A	Method Blank	Soluble	Solid	300.0	11675
LCS 880-11675/2-A	Lab Control Sample	Soluble	Solid	300.0	11675
LCSD 880-11675/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11675
890-1530-10 MS	SW31	Soluble	Solid	300.0	11675
890-1530-10 MSD	SW31	Soluble	Solid	300.0	11675

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: FS29 Lab Sample ID: 890-1530-1

Date Collected: 11/03/21 12:15 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 08:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 13:12	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 14:55	CH	XEN MID

Client Sample ID: FS30 Lab Sample ID: 890-1530-2

Date Collected: 11/03/21 12:13 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 10:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 14:15	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 15:02	CH	XEN MID

Client Sample ID: FS33 Lab Sample ID: 890-1530-3

Date Collected: 11/03/21 14:39 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 10:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 14:36	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 15:25	CH	XEN MID

Client Sample ID: FS34 Lab Sample ID: 890-1530-4

Date Collected: 11/03/21 14:56 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 10:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Client Sample ID: FS34
Date Collected: 11/03/21 14:56
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1530-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 14:57	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 15:32	CH	XEN MID

Client Sample ID: FS35
Date Collected: 11/03/21 10:10
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1530-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 11:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 15:19	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 15:39	CH	XEN MID

Client Sample ID: FS36
Date Collected: 11/03/21 10:15
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1530-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 11:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 15:40	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 15:47	CH	XEN MID

Client Sample ID: FS37
Date Collected: 11/03/21 10:20
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1530-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 11:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 16:01	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: FS37 Lab Sample ID: 890-1530-7

Date Collected: 11/03/21 10:20 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 15:54	CH	XEN MID

Client Sample ID: SW27 Lab Sample ID: 890-1530-8

Date Collected: 11/03/21 15:28 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 12:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 16:23	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 16:01	CH	XEN MID

Client Sample ID: SW28 Lab Sample ID: 890-1530-9

Date Collected: 11/03/21 15:25 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 12:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 16:45	AJ	XEN MID
Soluble	Leach	DI Leach			11674	11/08/21 11:39	CH	XEN MID
Soluble	Analysis	300.0		1	12052	11/17/21 16:09	CH	XEN MID

Client Sample ID: SW31 Lab Sample ID: 890-1530-10

Date Collected: 11/03/21 15:10 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 12:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 17:06	AJ	XEN MID
Soluble	Leach	DI Leach			11675	11/08/21 11:42	CH	XEN MID
Soluble	Analysis	300.0		1	12053	11/11/21 20:16	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Client Sample ID: SW32 Lab Sample ID: 890-1530-11

Date Collected: 11/03/21 15:22 **Matrix: Solid**
Date Received: 11/04/21 08:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11532	11/05/21 11:23	MR	XEN MID
Total/NA	Analysis	8021B		1	11601	11/06/21 13:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	11890	11/10/21 11:29	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11626	11/06/21 17:49	AJ	XEN MID
Soluble	Leach	DI Leach			11675	11/08/21 11:42	CH	XEN MID
Soluble	Analysis	300.0		1	12053	11/11/21 20:38	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1530-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1530-1
SDG: TE0129159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1530-1	FS29	Solid	11/03/21 12:15	11/04/21 08:33	3
890-1530-2	FS30	Solid	11/03/21 12:13	11/04/21 08:33	4
890-1530-3	FS33	Solid	11/03/21 14:39	11/04/21 08:33	4
890-1530-4	FS34	Solid	11/03/21 14:56	11/04/21 08:33	4
890-1530-5	FS35	Solid	11/03/21 10:10	11/04/21 08:33	2
890-1530-6	FS36	Solid	11/03/21 10:15	11/04/21 08:33	2
890-1530-7	FS37	Solid	11/03/21 10:20	11/04/21 08:33	2
890-1530-8	SW27	Solid	11/03/21 15:28	11/04/21 08:33	0 - 4
890-1530-9	SW28	Solid	11/03/21 15:25	11/04/21 08:33	0 - 4
890-1530-10	SW31	Solid	11/03/21 15:10	11/04/21 08:33	0 - 4
890-1530-11	SW32	Solid	11/03/21 15:22	11/04/21 08:33	0 - 4

Page 749 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 2

Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	1.0 / 0.8	Thermometer ID	
Received Intact:	Yes No	TM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS29	S	11/3/2021	1215	3'	1	X	X	X
FS30	S	11/3/2021	1213	4'	2	X	X	X
FS33	S	11/3/2021	1439	4'	3	X	X	X
FS34	S	11/3/2021	1456	4'	4	X	X	X
FS35	S	11/3/2021	1010	2'	5	X	X	X
FS36	S	11/3/2021	1015	2'	6	X	X	X
FS37	S	11/3/2021	1020	2'	7	X	X	X
SW27	S	11/3/2021	1528	0-4'	8	X	X	X
SW28	S	11/3/2021	1525	0-4'	9	X	X	X
SW31	S	11/3/2021	1510	0-4'	10	X	X	X

890-1530 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Composite

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11-4-21 / 6:00	2		Cle CA	11.4.21 0833
3				4			
5				6			

Revised Date 051418 Rev. 2018 1

Page 31 of 36

11/17/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 750 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 2 of 2

Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☒
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):		Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW32	S	11/3/2021	1522	0-4'	1	X	X	X	Composite

ANALYSIS REQUEST

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11-4-21 / 8:00	2		11.4.21 0830
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Page 751 of 799

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1530-1
Address: 1211 W Florida Ave	Due Date Requested: 11/11/2021			
City: ~~Midland~~	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS29 (890-1530-1)	11/3/21	12 15 Mountain		Solid			X	X	X	X	X	1	
FS30 (890-1530-2)	11/3/21	12 13 Mountain		Solid			X	X	X	X	X	1	
FS33 (890-1530-3)	11/3/21	14 39 Mountain		Solid			X	X	X	X	X	1	
FS34 (890-1530-4)	11/3/21	14 56 Mountain		Solid			X	X	X	X	X	1	
FS35 (890-1530-5)	11/3/21	10 10 Mountain		Solid			X	X	X	X	X	1	
FS36 (890-1530-6)	11/3/21	10 15 Mountain		Solid			X	X	X	X	X	1	
FS37 (890-1530-7)	11/3/21	10 20 Mountain		Solid			X	X	X	X	X	1	
SW27 (890-1530-8)	11/3/21	15 28 Mountain		Solid			X	X	X	X	X	1	
SW28 (890-1530-9)	11/3/21	15 25 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Relinquished by: [signature] 11-4-21			Received by: [signature]	11 5 21	
2	Relinquished by:			Received by: [signature]	1304	
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.6/4.7

Ver: 06/08/2021

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

11/17/2021

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-495 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1530-1
Address: 1211 W Florida Ave	Due Date Requested: 11/11/2021			Preservation Codes
City: Midland	TAT Requested (days):			A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/6035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW31 (890-1530-10)	11/3/21	15 10 Mountain		Solid			X	X	X	X	X	1	
SW32 (890-1530-11)	11/3/21	15 22 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:
Relinquished by: Cleo Apo 11.4.21	Date/Time	Company	Received by: [signature] Date/Time Company
Relinquished by:	Date/Time	Company	Received by: Date/Time Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Page 752 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/17/2021
Page 34 of 36
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1530-1
SDG Number: TE0129159

Login Number: 1530
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1530-1
SDG Number: TE0129159

Login Number: 1530
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1528-1
Laboratory Sample Delivery Group: TE0129159
Client Project/Site: Ross Ranch 6

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
11/9/2021 1:57:31 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS
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Have a Question? Ask The Expert
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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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1528-1
SDG: TE0129159

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 6
QC Sample Results 7
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1528-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc. Job ID: 890-1528-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Job ID: 890-1528-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1528-1

Receipt
The sample was received on 11/4/2021 8:33 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 0.8°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
Method 8015MOD_NM: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-11444 and analytical batch 880-11509 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Diesel Range Organics (Over C10-C28) and OII Range Organics (Over C28-C36) in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Client Sample ID: SW30

Date Collected: 11/03/21 11:05
Date Received: 11/04/21 08:33
Sample Depth: 0 - 2

Lab Sample ID: 890-1528-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 13:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 13:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 13:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/05/21 09:00	11/05/21 13:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 13:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/05/21 09:00	11/05/21 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/05/21 09:00*	*11/05/21 13:48*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*11/05/21 09:00*	*11/05/21 13:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/05/21 13:34	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**461**		50.0		mg/Kg			11/05/21 13:50	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/04/21 10:41	11/05/21 16:22	1
Diesel Range Organics (Over C10-C28)	**401**		50.0		mg/Kg		11/04/21 10:41	11/05/21 16:22	1
Oil Range Organics (Over C28-C36)	**59.8**		50.0		mg/Kg		11/04/21 10:41	11/05/21 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*11/04/21 10:41*	*11/05/21 16:22*	*1*
o-Terphenyl	*128*		*70 - 130*	*11/04/21 10:41*	*11/05/21 16:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**270**		4.97		mg/Kg			11/09/21 05:27	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1528-1	SW30	117	87
890-1537-A-1-B MS	Matrix Spike	111	103
890-1537-A-1-C MSD	Matrix Spike Duplicate	119	102
LCS 880-11475/1-A	Lab Control Sample	107	106
LCSD 880-11475/2-A	Lab Control Sample Dup	103	106
MB 880-11475/5-A	Method Blank	110	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-7973-A-1-B MS	Matrix Spike	101	84
880-7973-A-1-C MSD	Matrix Spike Duplicate	101	90
890-1528-1	SW30	118	128
LCS 880-11444/2-A	Lab Control Sample	102	112
LCSD 880-11444/3-A	Lab Control Sample Dup	97	108
MB 880-11444/1-A	Method Blank	109	129

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11475/5-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11475

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/05/21 09:00	11/05/21 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/05/21 09:00	11/05/21 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/05/21 09:00*	*11/05/21 12:28*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/05/21 09:00*	*11/05/21 12:28*	*1*

Lab Sample ID: LCS 880-11475/1-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11475

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08097		mg/Kg		81	70 - 130		
Toluene			0.100	0.07362		mg/Kg		74	70 - 130		
Ethylbenzene			0.100	0.07723		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1612		mg/Kg		81	70 - 130		
o-Xylene			0.100	0.08159		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-11475/2-A
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11475

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08404		mg/Kg		84	70 - 130	4	35
Toluene			0.100	0.07617		mg/Kg		76	70 - 130	3	35
Ethylbenzene			0.100	0.07848		mg/Kg		78	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1634		mg/Kg		82	70 - 130	1	35
o-Xylene			0.100	0.08158		mg/Kg		82	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1537-A-1-B MS
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0998	0.09141		mg/Kg		91	70 - 130		
Toluene	<0.00199	U	0.0998	0.08545		mg/Kg		85	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1537-A-1-B MS
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.0998	0.08783		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1844		mg/Kg		92	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09241		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-1537-A-1-C MSD
Matrix: Solid
Analysis Batch: 11515

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11475

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.08206		mg/Kg		82	70 - 130	11	35
Toluene	<0.00199	U	0.0996	0.07797		mg/Kg		78	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.0996	0.08478		mg/Kg		85	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1813		mg/Kg		91	70 - 130	2	35
o-Xylene	<0.00199	U	0.0996	0.09187		mg/Kg		92	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11444/1-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11444

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/04/21 10:41	11/05/21 11:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/21 10:41	11/05/21 11:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/21 10:41	11/05/21 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/04/21 10:41*	*11/05/21 11:16*	*1*
o-Terphenyl	*129*		*70 - 130*	*11/04/21 10:41*	*11/05/21 11:16*	*1*

Lab Sample ID: LCS 880-11444/2-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1120		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1093		mg/Kg		109	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-11444/2-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11444

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: LCSD 880-11444/3-A
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11444

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1145		mg/Kg		114	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1146		mg/Kg		115	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-7973-A-1-B MS
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<249	U F1 F2	997	1598	F1	mg/Kg		160	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-7973-A-1-C MSD
Matrix: Solid
Analysis Batch: 11509

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11444

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<249	U F1 F2	1000	1220	F2	mg/Kg		122	70 - 130	27	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	90		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11667/1-A
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/09/21 03:48	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-11667/2-A
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	256.9		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-11667/3-A
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	259.3		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 890-1539-A-3-H MS
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	55.3		250	326.4		mg/Kg		108	90 - 110		

Lab Sample ID: 890-1539-A-3-I MSD
Matrix: Solid
Analysis Batch: 11702

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	55.3		250	325.0		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

GC VOA

Prep Batch: 11475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Total/NA	Solid	5035	
MB 880-11475/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11475/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11475/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1537-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1537-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Total/NA	Solid	8021B	11475
MB 880-11475/5-A	Method Blank	Total/NA	Solid	8021B	11475
LCS 880-11475/1-A	Lab Control Sample	Total/NA	Solid	8021B	11475
LCSD 880-11475/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11475
890-1537-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	11475
890-1537-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11475

Analysis Batch: 11588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Total/NA	Solid	8015NM Prep	
MB 880-11444/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11444/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11444/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7973-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7973-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Total/NA	Solid	8015B NM	11444
MB 880-11444/1-A	Method Blank	Total/NA	Solid	8015B NM	11444
LCS 880-11444/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11444
LCSD 880-11444/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11444
880-7973-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	11444
880-7973-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11444

Analysis Batch: 11598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Soluble	Solid	DI Leach	
MB 880-11667/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11667/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11667/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

HPLC/IC (Continued)

Leach Batch: 11667 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1539-A-3-H MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1539-A-3-I MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1528-1	SW30	Soluble	Solid	300.0	11667
MB 880-11667/1-A	Method Blank	Soluble	Solid	300.0	11667
LCS 880-11667/2-A	Lab Control Sample	Soluble	Solid	300.0	11667
LCSD 880-11667/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11667
890-1539-A-3-H MS	Matrix Spike	Soluble	Solid	300.0	11667
890-1539-A-3-I MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11667

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Client Sample ID: SW30

Date Collected: 11/03/21 11:05
Date Received: 11/04/21 08:33

Lab Sample ID: 890-1528-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			11475	11/05/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	11515	11/05/21 13:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	11588	11/05/21 13:34	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	11598	11/05/21 13:50	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11444	11/04/21 10:41	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11509	11/05/21 16:22	AJ	XEN MID
Soluble	Leach	DI Leach			11667	11/08/21 11:05	CH	XEN MID
Soluble	Analysis	300.0		1	11702	11/09/21 05:27	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1528-1
Project/Site: Ross Ranch 6 SDG: TE0129159

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1528-1
Project/Site: Ross Ranch 6 SDG: TE0129159

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1528-1
SDG: TE0129159

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1528-1	SW30	Solid	11/03/21 11:05	11/04/21 08:33	0 - 2

Page 771 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 2

Work Order No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	luis.delval@wsp.com; tacoma.morrissey@wsp.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159	Routine	☐
P.O. Number:	CC: 1138871001	Rush:	24 hr
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.0 / 0.8	Thermometer ID		
Received Intact:	(Yes) No		TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW30	S	11/3/2021	1105	0-2	1	X	X	X	Composite

890-1528 Chain of Custody

Work Order Notes

Incident #: nAPP2034638293
AFE: EW.2021.01556.EXP.01

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11.4.21 0832	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

11/9/2021

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-495 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1528-1
Address: 1211 W Florida Ave	Due Date Requested: 11/5/2021			
City: ~~Midland~~	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C ~~Zn Acetate~~, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O ~~AsNaO2~~, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T - TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW30 (890-1528-1)	11/3/21	11 05 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Relinquished by: 11.4.21	Date/Time:	Company	Received by:	Date/Time: 11.5.21	Company
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1304	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.6/4.7

Ver: 06/08/2021

Page 772 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/9/2021
Page 18 of 20
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1528-1
SDG Number: TE0129159

Login Number: 1528
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1528-1
SDG Number: TE0129159

Login Number: 1528
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/05/21 01:13 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	4.6/4.7
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	

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ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-1560-1
Laboratory Sample Delivery Group: TE012929159 TASK 2
Client Project/Site: Ross Ranch 6

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/18/2021 10:07:43 AM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

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.

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Laboratory Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 14
Lab Chronicle 16
Certification Summary 18
Method Summary 19
Sample Summary 20
Chain of Custody 21
Receipt Checklists 23

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Job ID: 890-1560-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1560-1

Receipt
The samples were received on 11/10/2021 1:49 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 4.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-12021 and analytical batch 880-12220 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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS38 (890-1560-1) and FS39 (890-1560-2). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-12047/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Client Sample ID: FS38 Lab Sample ID: 890-1560-1

Date Collected: 11/04/21 10:00 **Matrix: Solid**
Date Received: 11/10/21 13:49
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 14:31	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 14:31	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 14:31	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/11/21 12:48	11/15/21 14:31	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 14:31	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/11/21 12:48	11/15/21 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*11/11/21 12:48*	*11/15/21 14:31*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/11/21 12:48*	*11/15/21 14:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/17/21 16:31	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/16/21 09:36	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/11/21 15:47	11/12/21 19:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/11/21 15:47	11/12/21 19:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/11/21 15:47	11/12/21 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*11/11/21 15:47*	*11/12/21 19:24*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*11/11/21 15:47*	*11/12/21 19:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**117**		24.9		mg/Kg			11/17/21 19:50	5

Client Sample ID: FS39 Lab Sample ID: 890-1560-2

Date Collected: 11/04/21 10:10 **Matrix: Solid**
Date Received: 11/10/21 13:49
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 14:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 14:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 14:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/11/21 12:48	11/15/21 14:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 14:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/11/21 12:48	11/15/21 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*11/11/21 12:48*	*11/15/21 14:51*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Client Sample ID: FS39 — Lab Sample ID: 890-1560-2

Date Collected: 11/04/21 10:10 **Matrix: Solid**
Date Received: 11/10/21 13:49
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*11/11/21 12:48*	*11/15/21 14:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/17/21 16:31	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/16/21 09:36	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/11/21 15:47	11/12/21 19:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/11/21 15:47	11/12/21 19:44	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/11/21 15:47	11/12/21 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*11/11/21 15:47*	*11/12/21 19:44*	*1*
o-Terphenyl	*148*	*S1+*	*70 - 130*	*11/11/21 15:47*	*11/12/21 19:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.415**		0.0502	mg/Kg			11/17/21 19:57	1

Client Sample ID: FS40 — Lab Sample ID: 890-1560-3

Date Collected: 11/04/21 10:20 **Matrix: Solid**
Date Received: 11/10/21 13:49
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/11/21 12:48	11/15/21 15:12	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/11/21 12:48	11/15/21 15:12	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/11/21 12:48	11/15/21 15:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/11/21 12:48	11/15/21 15:12	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/11/21 12:48	11/15/21 15:12	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/11/21 12:48	11/15/21 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/11/21 12:48*	*11/15/21 15:12*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*11/11/21 12:48*	*11/15/21 15:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/17/21 16:31	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**75.7**		49.9	mg/Kg			11/16/21 09:36	1

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Client Sample ID: FS40 Lab Sample ID: 890-1560-3

Date Collected: 11/04/21 10:20 **Matrix: Solid**
Date Received: 11/10/21 13:49
Sample Depth: 4

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/11/21 15:47	11/12/21 20:04	1
Diesel Range Organics (Over C10-C28)	**75.7**		49.9		mg/Kg		11/11/21 15:47	11/12/21 20:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/11/21 15:47	11/12/21 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/11/21 15:47*	*11/12/21 20:04*	*1*
o-Terphenyl	*124*		*70 - 130*	*11/11/21 15:47*	*11/12/21 20:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69.4**		4.99		mg/Kg			11/17/21 20:05	1

Client Sample ID: SW34 Lab Sample ID: 890-1560-4

Date Collected: 11/04/21 11:10 **Matrix: Solid**
Date Received: 11/10/21 13:49
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 15:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 15:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 15:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/11/21 12:48	11/15/21 15:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 15:33	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/11/21 12:48	11/15/21 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/11/21 12:48*	*11/15/21 15:33*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/11/21 12:48*	*11/15/21 15:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/17/21 16:31	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/16/21 09:36	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/11/21 15:47	11/12/21 20:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/11/21 15:47	11/12/21 20:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/11/21 15:47	11/12/21 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*11/11/21 15:47*	*11/12/21 20:25*	*1*
o-Terphenyl	*119*		*70 - 130*	*11/11/21 15:47*	*11/12/21 20:25*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Client Sample ID: SW34
Date Collected: 11/04/21 11:10
Date Received: 11/10/21 13:49
Sample Depth: 4

Lab Sample ID: 890-1560-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		4.99		mg/Kg			11/17/21 20:12	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1548-A-1-F MS	Matrix Spike	91	95
890-1548-A-1-G MSD	Matrix Spike Duplicate	98	99
890-1560-1	FS38	95	106
890-1560-2	FS39	95	106
890-1560-3	FS40	93	108
890-1560-4	SW34	98	111
LCS 880-12021/1-A	Lab Control Sample	90	94
LCSD 880-12021/2-A	Lab Control Sample Dup	94	95
MB 880-12021/5-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 **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8220-A-1-E MS	Matrix Spike	102	93
880-8220-A-1-F MSD	Matrix Spike Duplicate	120	111
890-1560-1	FS38	118	144 S1+
890-1560-2	FS39	120	148 S1+
890-1560-3	FS40	102	124
890-1560-4	SW34	100	119
LCS 880-12047/2-A	Lab Control Sample	118	118
LCSD 880-12047/3-A	Lab Control Sample Dup	115	116
MB 880-12047/1-A	Method Blank	107	135 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12021/5-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12021

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/11/21 12:48	11/15/21 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*11/11/21 12:48*	*11/15/21 12:25*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/11/21 12:48*	*11/15/21 12:25*	*1*

Lab Sample ID: LCS 880-12021/1-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12021

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08974		mg/Kg		90	70 - 130		
Toluene			0.100	0.07855		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.08329		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1603		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08127		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-12021/2-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08682		mg/Kg		87	70 - 130	3	35
Toluene			0.100	0.08159		mg/Kg		82	70 - 130	4	35
Ethylbenzene			0.100	0.08606		mg/Kg		86	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1659		mg/Kg		83	70 - 130	3	35
o-Xylene			0.100	0.08365		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-1548-A-1-F MS
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.101	0.07122		mg/Kg		71	70 - 130		
Toluene	<0.00199	U F1	0.101	0.06549	F1	mg/Kg		65	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-1548-A-1-F MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 12220 **Prep Batch: 12021**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.101	0.06525	F1	mg/Kg		65	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1260	F1	mg/Kg		63	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.06337	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-1548-A-1-G MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 12220 **Prep Batch: 12021**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.08385		mg/Kg		84	70 - 130	16	35
Toluene	<0.00199	U F1	0.100	0.07510		mg/Kg		75	70 - 130	14	35
Ethylbenzene	<0.00199	U F1	0.100	0.07458		mg/Kg		75	70 - 130	13	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1436		mg/Kg		72	70 - 130	13	35
o-Xylene	<0.00199	U F1	0.100	0.07240		mg/Kg		72	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-12047/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 12086 **Prep Batch: 12047**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/11/21 15:47	11/12/21 11:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/11/21 15:47	11/12/21 11:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/11/21 15:47	11/12/21 11:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*11/11/21 15:47*	*11/12/21 11:51*	*1*
o-Terphenyl	*135*	*S1+*	*70 - 130*	*11/11/21 15:47*	*11/12/21 11:51*	*1*

Lab Sample ID: LCS 880-12047/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 12086 **Prep Batch: 12047**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	958.1		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1139		mg/Kg		114	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-12047/2-A
Matrix: Solid
Analysis Batch: 12086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12047

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: LCSD 880-12047/3-A
Matrix: Solid
Analysis Batch: 12086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12047

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1077		mg/Kg		108	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1208		mg/Kg		121	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: 880-8220-A-1-E MS
Matrix: Solid
Analysis Batch: 12086

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 12047

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	958.7		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	928.5		mg/Kg		91	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 880-8220-A-1-F MSD
Matrix: Solid
Analysis Batch: 12086

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 12047

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1048		mg/Kg		103	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1092		mg/Kg		107	70 - 130	16	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	111		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12260/1-A
Matrix: Solid
Analysis Batch: 12471

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/17/21 16:46	1

Lab Sample ID: LCS 880-12260/2-A
Matrix: Solid
Analysis Batch: 12471

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	267.8		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-12260/3-A
Matrix: Solid
Analysis Batch: 12471

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	269.1		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-7343-A-71-E MS
Matrix: Solid
Analysis Batch: 12471

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	3680		2480	6364		mg/Kg		108	90 - 110		

Lab Sample ID: 880-7343-A-71-F MSD
Matrix: Solid
Analysis Batch: 12471

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3680		2480	6282		mg/Kg		105	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

GC VOA

Prep Batch: 12021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Total/NA	Solid	5035	
890-1560-2	FS39	Total/NA	Solid	5035	
890-1560-3	FS40	Total/NA	Solid	5035	
890-1560-4	SW34	Total/NA	Solid	5035	
MB 880-12021/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12021/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12021/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1548-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-1548-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 12220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Total/NA	Solid	8021B	12021
890-1560-2	FS39	Total/NA	Solid	8021B	12021
890-1560-3	FS40	Total/NA	Solid	8021B	12021
890-1560-4	SW34	Total/NA	Solid	8021B	12021
MB 880-12021/5-A	Method Blank	Total/NA	Solid	8021B	12021
LCS 880-12021/1-A	Lab Control Sample	Total/NA	Solid	8021B	12021
LCSD 880-12021/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12021
890-1548-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	12021
890-1548-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	12021

Analysis Batch: 12338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Total/NA	Solid	Total BTEX	
890-1560-2	FS39	Total/NA	Solid	Total BTEX	
890-1560-3	FS40	Total/NA	Solid	Total BTEX	
890-1560-4	SW34	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 12047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Total/NA	Solid	8015NM Prep	
890-1560-2	FS39	Total/NA	Solid	8015NM Prep	
890-1560-3	FS40	Total/NA	Solid	8015NM Prep	
890-1560-4	SW34	Total/NA	Solid	8015NM Prep	
MB 880-12047/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12047/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-12047/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8220-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8220-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Total/NA	Solid	8015B NM	12047
890-1560-2	FS39	Total/NA	Solid	8015B NM	12047
890-1560-3	FS40	Total/NA	Solid	8015B NM	12047
890-1560-4	SW34	Total/NA	Solid	8015B NM	12047
MB 880-12047/1-A	Method Blank	Total/NA	Solid	8015B NM	12047
LCS 880-12047/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12047

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

GC Semi VOA (Continued)

Analysis Batch: 12086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-12047/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12047
880-8220-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	12047
880-8220-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12047

Analysis Batch: 12429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Total/NA	Solid	8015 NM	
890-1560-2	FS39	Total/NA	Solid	8015 NM	
890-1560-3	FS40	Total/NA	Solid	8015 NM	
890-1560-4	SW34	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Soluble	Solid	DI Leach	
890-1560-2	FS39	Soluble	Solid	DI Leach	
890-1560-3	FS40	Soluble	Solid	DI Leach	
890-1560-4	SW34	Soluble	Solid	DI Leach	
MB 880-12260/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12260/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12260/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7343-A-71-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7343-A-71-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 12471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1560-1	FS38	Soluble	Solid	300.0	12260
890-1560-2	FS39	Soluble	Solid	300.0	12260
890-1560-3	FS40	Soluble	Solid	300.0	12260
890-1560-4	SW34	Soluble	Solid	300.0	12260
MB 880-12260/1-A	Method Blank	Soluble	Solid	300.0	12260
LCS 880-12260/2-A	Lab Control Sample	Soluble	Solid	300.0	12260
LCSD 880-12260/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12260
880-7343-A-71-E MS	Matrix Spike	Soluble	Solid	300.0	12260
880-7343-A-71-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12260

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Client Sample ID: FS38 Lab Sample ID: 890-1560-1

Date Collected: 11/04/21 10:00 **Matrix: Solid**
Date Received: 11/10/21 13:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 14:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/17/21 16:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12429	11/16/21 09:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12047	11/11/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12086	11/12/21 19:24	AJ	XEN MID
Soluble	Leach	DI Leach			12260	11/15/21 10:13	CA	XEN MID
Soluble	Analysis	300.0		5	12471	11/17/21 19:50	CH	XEN MID

Client Sample ID: FS39 Lab Sample ID: 890-1560-2

Date Collected: 11/04/21 10:10 **Matrix: Solid**
Date Received: 11/10/21 13:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 14:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/17/21 16:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12429	11/16/21 09:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12047	11/11/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12086	11/12/21 19:44	AJ	XEN MID
Soluble	Leach	DI Leach			12260	11/15/21 10:13	CA	XEN MID
Soluble	Analysis	300.0		1	12471	11/17/21 19:57	CH	XEN MID

Client Sample ID: FS40 Lab Sample ID: 890-1560-3

Date Collected: 11/04/21 10:20 **Matrix: Solid**
Date Received: 11/10/21 13:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 15:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/17/21 16:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12429	11/16/21 09:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12047	11/11/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12086	11/12/21 20:04	AJ	XEN MID
Soluble	Leach	DI Leach			12260	11/15/21 10:13	CA	XEN MID
Soluble	Analysis	300.0		1	12471	11/17/21 20:05	CH	XEN MID

Client Sample ID: SW34 Lab Sample ID: 890-1560-4

Date Collected: 11/04/21 11:10 **Matrix: Solid**
Date Received: 11/10/21 13:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 15:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/17/21 16:31	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Client Sample ID: SW34

Date Collected: 11/04/21 11:10
Date Received: 11/10/21 13:49

Lab Sample ID: 890-1560-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	12429	11/16/21 09:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			12047	11/11/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	12086	11/12/21 20:25	AJ	XEN MID
Soluble	Leach	DI Leach			12260	11/15/21 10:13	CA	XEN MID
Soluble	Analysis	300.0		1	12471	11/17/21 20:12	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

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
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1560-1
Project/Site: Ross Ranch 6 SDG: TE012929159 TASK 2

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: Ross Ranch 6

Job ID: 890-1560-1
SDG: TE012929159 TASK 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1560-1	FS38	Solid	11/04/21 10:00	11/10/21 13:49	4
890-1560-2	FS39	Solid	11/04/21 10:10	11/10/21 13:49	4
890-1560-3	FS40	Solid	11/04/21 10:20	11/10/21 13:49	4
890-1560-4	SW34	Solid	11/04/21 11:10	11/10/21 13:49	4

Page 795 of 799

Chain of Custody

XENCO LABORATORIES

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 (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

www.xenco.com Page 1 of 1

11/18/2021

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com Tacoma.Morrissey@wsp.com

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:

Project Name:	Ross Ranch 6	Turn Around	
Project Number:	TE012929159 Task 2	Routine	☑
P.O. Number:	CC: 1138871001	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	4.4 / 4.2	Thermometer ID		
Received Intact:	(Yes) No	IR-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS38	S	11/4/2021	1000	4'	1	x	x	x	COMPOSITE
FS39	S	11/4/2021	1010	4'	1	x	x	x	COMPOSITE
FS40	S	11/4/2021	1020	4'	1	x	x	x	COMPOSITE
SW34	S	11/4/2021	1110	4'	1	x	x	x	COMPOSITE

AC

890-1560 Chain of Custody

Work Order Notes

~~Incident #: nAPP2034638293~~
AFE: EW.2021.01556.EXP.01
API: 30-015-36883

TAT starts the day recevied by the lab, if received by 4:30pm

Page 21 of 24

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Luis Del Val	Ace Cano	11-10-21 1349	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Received by OCD: 3/4/2022 1:28:26 PM

Released to Imaging: 4/8/2022 2:26:11 PM

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-503.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1560-1
Address: 1211 W Florida Ave	Due Date Requested: 11/16/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Ross Ranch 6	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8016MOD_NM/8016NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
FS38 (890-1560-1)	11/4/21	10 00 Mountain		Solid			X	X	X	X	X	1	
FS39 (890-1560-2)	11/4/21	10 10 Mountain		Solid			X	X	X	X	X	1	
FS40 (890-1560-3)	11/4/21	10 20 Mountain		Solid			X	X	X	X	X	1	
SW34 (890-1560-4)	11/4/21	11 10 Mountain		Solid			X	X	X	X	X	1	

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.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Relinquished by: 11.10.21	Date/Time:	Company	Received by: Ulticia R	Date/Time: 11/11/21 1125	Company
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.2/3.3

Ver: 06/08/2021

Page 796 of 799
Received by OCD: 3/4/2022 1:28:26 PM
11/18/2021
Page 22 of 24
Released to Imaging: 4/8/2022 2:26:11 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1560-1
SDG Number: TE012929159 TASK 2

Login Number: 1560
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1560-1
SDG Number: TE012929159 TASK 2

Login Number: 1560
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/11/21 11:49 AM

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	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 87221

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 87221
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2034638293 ROSS RANCH 6 BATTERY, thank you. This closure is approved.	4/8/2022