District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2108543210
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2108543210
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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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: _____ Title: _____

Signature: Adrian Baker Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Location:	ADU CTB	
Spill Date:	3/19/2021	

Area 1		
Approximate Area =	2064.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	14.19	bbls

Area 2		
Approximate Area =	1226.00	sq. ft.
Average Saturation (or depth) of spill =	0.25	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.14	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**14.33**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**5.00**	**bbls**

Incident ID	NAPP2108543210
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.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2108543210
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: Kyle Littrell Title: Environmental Manager

Signature: Date: 06/17/2021

email: kyle.littrell@exxonmobil.com Telephone:

OCD Only

Received by: Date:

Incident ID	NAPP2108543210
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.

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: Environmental Manager

Signature: _____ Date: 6/17/2021

email: kyle.littrell@exxonmobil.com Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2108543210
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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- ☐ 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.***

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- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Environmental Manager

Signature: [signature] Date: 6/17/2021

email: kyle.littrell@exxonmobil.com Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 9/16/2021

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

Signature: Robert Hamlet Date: 9/16/2021

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

June 17, 2021

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

RE: Deferral Request
Avalon Delaware Unit CTB
Incident Number NAPP2108543210
Eddy County, New Mexico

To Whom it May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the Avalon Delaware Unit CTB (Site) in Unit C, Section 31, Township 20 South, Range 28 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of crude oil at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NAPP2108543210 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On March 19, 2021, an open butterfly valve resulted in the release of 14.33 barrels (bbls) of crude oil into permeable containment and onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on March 26, 2021. The release was assigned Incident Number NAPP2108543210.

SITE CHARACTERIZATION

WSP characterized the Site 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). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well CP 00851, located approximately 0.15 miles east of the Site. The groundwater well has a reported

depth to groundwater of 115 feet bgs and a total depth of 255 feet bgs. Ground surface elevation at the groundwater well location is 3,251 feet above mean sea level (amsl), which is approximately 4 feet higher in elevation than the Site. NMOSE water well C 00851 was located less than 1,000 feet from the Site; therefore, a water sample (WS01) was collected from the well on October 1, 2019, for analysis of total dissolved solids (TDS) by Standard Method (SM) 2540C. Laboratory analytical results for water sample WS01, indicated a TDS concentration of 11,600 milligrams per liter (mg/L). Based on a TDS concentration greater than 10,000 mg/L, the water well is not considered a fresh water well. The laboratory analytical report is included in Attachment 4. NMOSE CP 01798 are 14 permitted soil borings completed to 20 feet bgs in July of 2019, groundwater was not encountered. The soil borings were plugged and abandoned per NMOSE requirements in July of 2019. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater.

The closest continuously flowing or significant watercourse to the Site is an intermittent riverine, located approximately 1,528 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On April 23, 2021, WSP personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected five preliminary assessment soil samples (SS01 through SS05) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the

preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary 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 Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Laboratory analytical results for all preliminary soil samples (SS01 through SS05) indicated that TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Between May 18, 2021 and June 2, 2021, WSP personnel returned to the Site to oversee excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. To determine vertical delineation prior to excavation, pothole PH01 was advanced to a depth of 5 feet bgs in the release extent near the preliminary soil sample SS03 location. Two discrete soil samples were collected from pothole PH01 at depths of 1-foot and 5 feet bgs. Soil from the pothole was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for the pothole were logged on a lithologic/soil sampling log, which are included in Attachment 2. The pothole location is shown on the attached Figure 2. Field screening results indicated that impacts to soil were limited to a depth of approximately 2 feet bgs.

Excavation activities were completed to remove impacted soil to the extent possible in the areas surrounding preliminary soil samples SS01 through SS05 and delineation soil sample PH01. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was separated into three areas (north, south, and east), divided by a flare scrubber and related aboveground pipelines. XTO safety policy prohibits mechanical or nonmechanical soil removal within 2 feet of active production equipment; therefore, impacted soil was left in-place immediately adjacent to active production equipment. The northern excavation measured approximately 2,830 square feet in area and was completed to depths ranging from approximately 2 feet to 4.5 feet bgs. The southern excavation measured approximately 2,250

square feet in area and was completed to a depth of approximately 1 feet bgs. The eastern excavation measured approximately 440 square feet in area and was completed to depths ranging from 1.5 feet to 2.5 feet bgs. Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floors of the excavations. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS31 were collected from the floor of the excavations from depths ranging from 1 foot bgs to 4.5 feet bgs. Composite soil samples SW01 through SW06 were collected from the sidewalls of the excavations from depths ranging from the ground surface to 4.5 feet bgs. Due to the shallow depth of parts of the excavations, the soil samples collected from less than 1.5 feet bgs represented the floors and sidewalls of the excavations. The excavation soil samples were collected, handled, and analyzed as described above. The excavation extents and excavation soil sample locations are depicted on Figure 3. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 3.

The combined excavations measured approximately 5,520 square feet in area and were completed to a maximum depth of 4.5 feet bgs. A total of approximately 440 cubic yards of impacted soil were removed from the excavations. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico.

Laboratory analytical results for pothole delineation sample PH01, collected at 1 foot bgs, indicated that TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria; subsequent delineation sample PH01A, collected at 5 feet bgs, was compliant with the Closure Criteria. Laboratory analytical results for excavation floor soil sample FS03 indicated that TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Additional soil was removed from the area around floor sample FS03 and subsequent floor sample FS03A was collected. Laboratory analytical results for excavation soil samples FS01, FS02, FS03A, FS04 through FS31, and SW01 through SW06, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH and chloride concentrations were compliant with Closure Criteria. The soil sample analytical results are summarized in Table 1 and laboratory analytical reports are included in Attachment 4.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On May 26, 2021, WSP personnel returned to the Site to oversee delineation activities to delineate the lateral and vertical extent of impacted soil left in-place adjacent to active production equipment. Seven potholes (PH02 through PH08) were advanced via track mounted backhoe to a depth of 4.5 feet bgs surrounding the release extent and production equipment. Discrete delineation soil samples were collected from each pothole at depths of 1-foot bgs and 4.5 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are

included in Attachment 2. The delineation soil samples were handled and analyzed as described above. The pothole delineation soil samples locations are depicted on Figure 4.

Laboratory analytical results for the delineation soil samples collected from potholes PH02 through PH08, collected outside of the release extent and surrounding production equipment, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

DEFERRAL REQUEST

A total of approximately 440 cubic yards of impacted soil were excavated from the Site. Laboratory analytical results for the excavation soil samples collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. However, residual impacted soil was left in place immediately surrounding and beneath active production equipment for compliance with XTO safety policy regarding earth moving activities within 2 feet of active equipment. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the production equipment.

The impacted soil remaining in place is delineated vertically and laterally by the final excavation soil samples and delineation soil samples from potholes PH01 through PH08. An estimated 135 cubic yards of impacted soil remains in place, assuming a maximum 3-feet depth based on the excavation and delineation soil samples listed above, that were compliant with the Closure Criteria. The deferral request area is depicted on Figure 4.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Free-standing released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately surrounding and beneath active production equipment, and no saturated soil remains in-place. Depth to groundwater is greater than 100 feet bgs as measured in a nearby water well. The groundwater in that well was sampled and the naturally occurring water quality contains TDS exceeding 10,000 mg/L. XTO requests deferral of final remediation for Incident Number NAPP2108543210.

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

Sincerely,

WSP USA Inc.

William Mather	Ashley L. Ager, P.G.
Assistant Consultant, Environmental Scientist	Managing Director, Geologist

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Delineation Soil Sample Locations and Deferral Area
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Lithologic/Sampling Log
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES

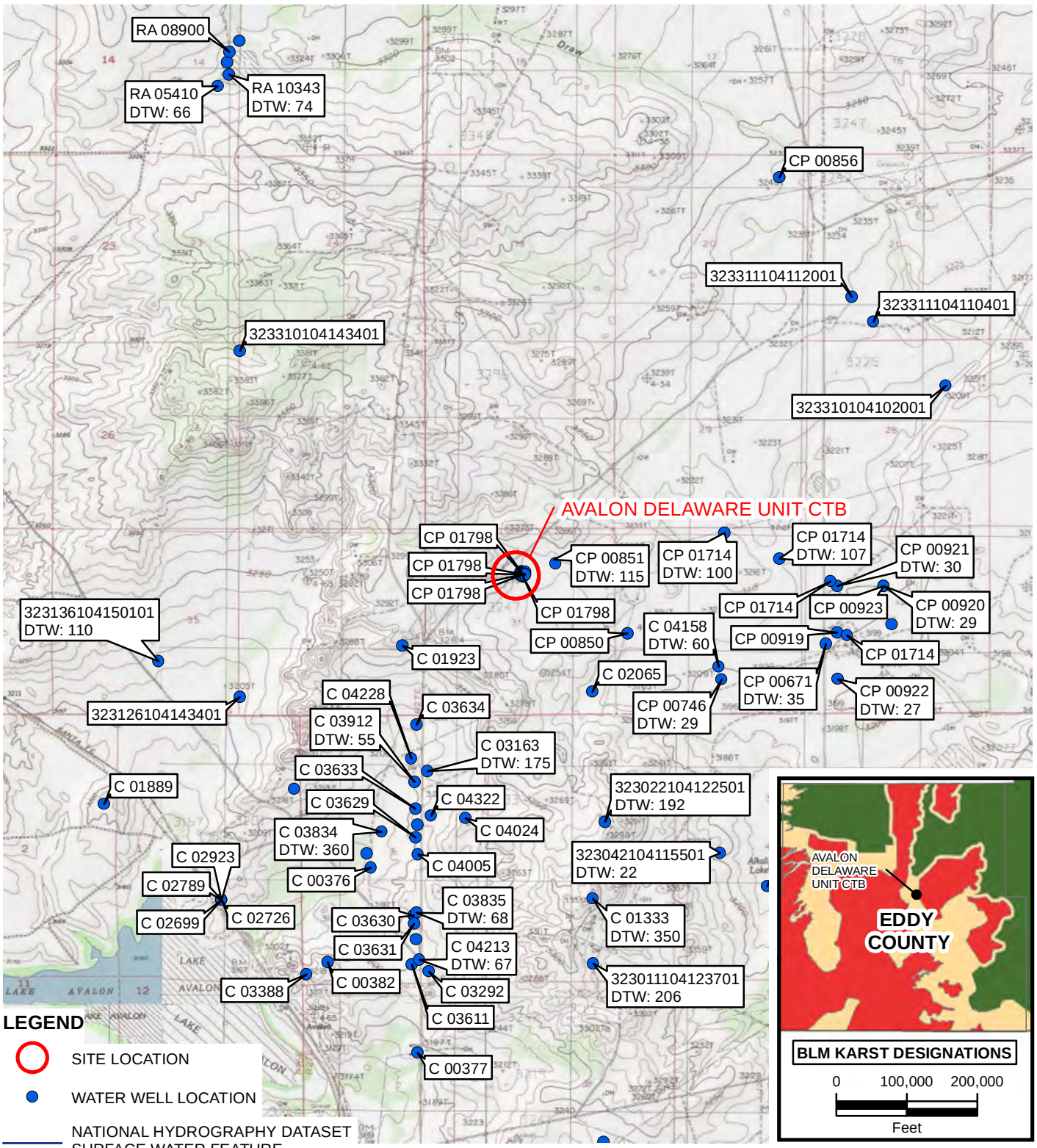
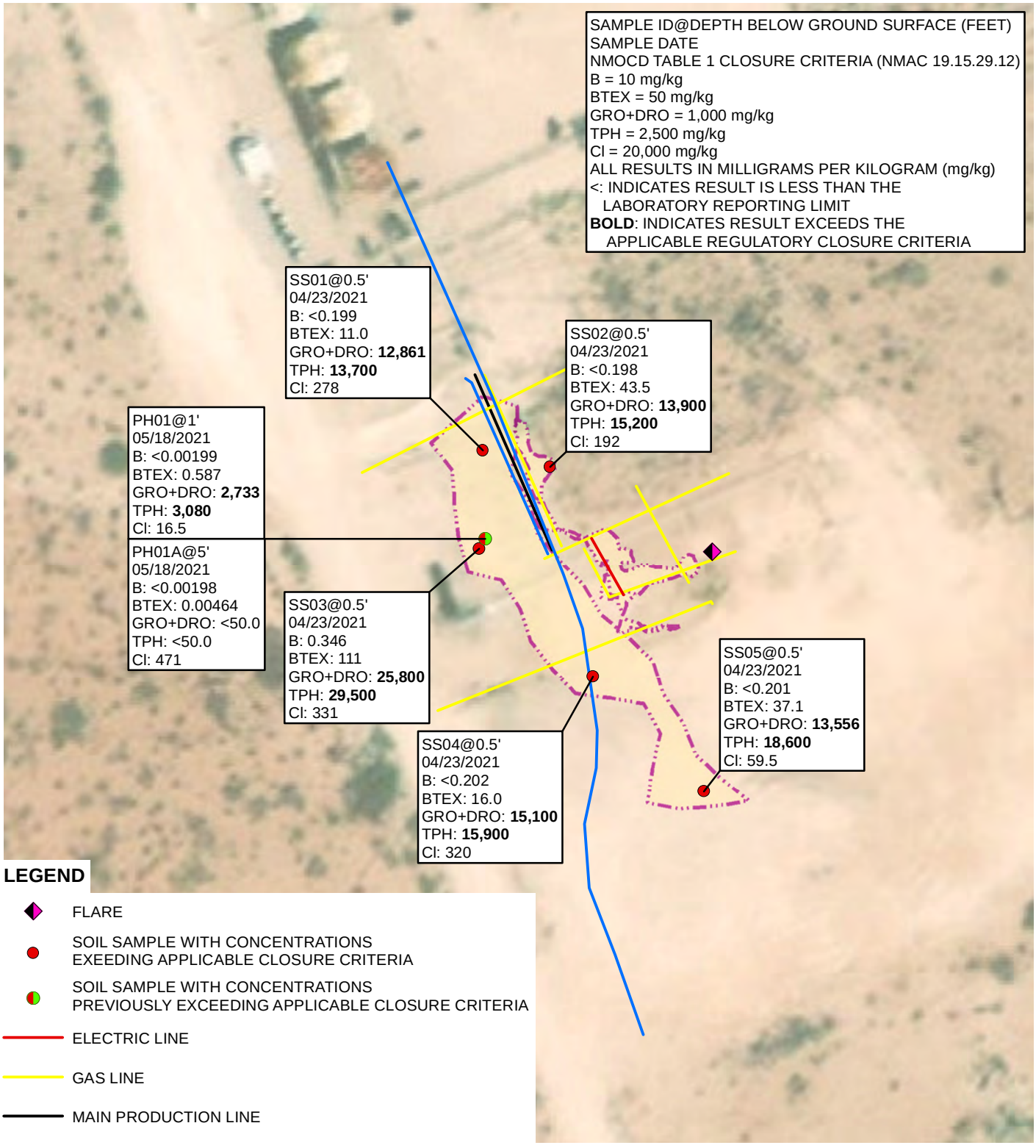


IMAGE COURTESY OF ESRI/USGS

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER NAPP2108543210

FIGURE 1
SITE LOCATION MAP
AVALON DELAWARE UNIT CTB
UNIT C SEC 31 T20S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

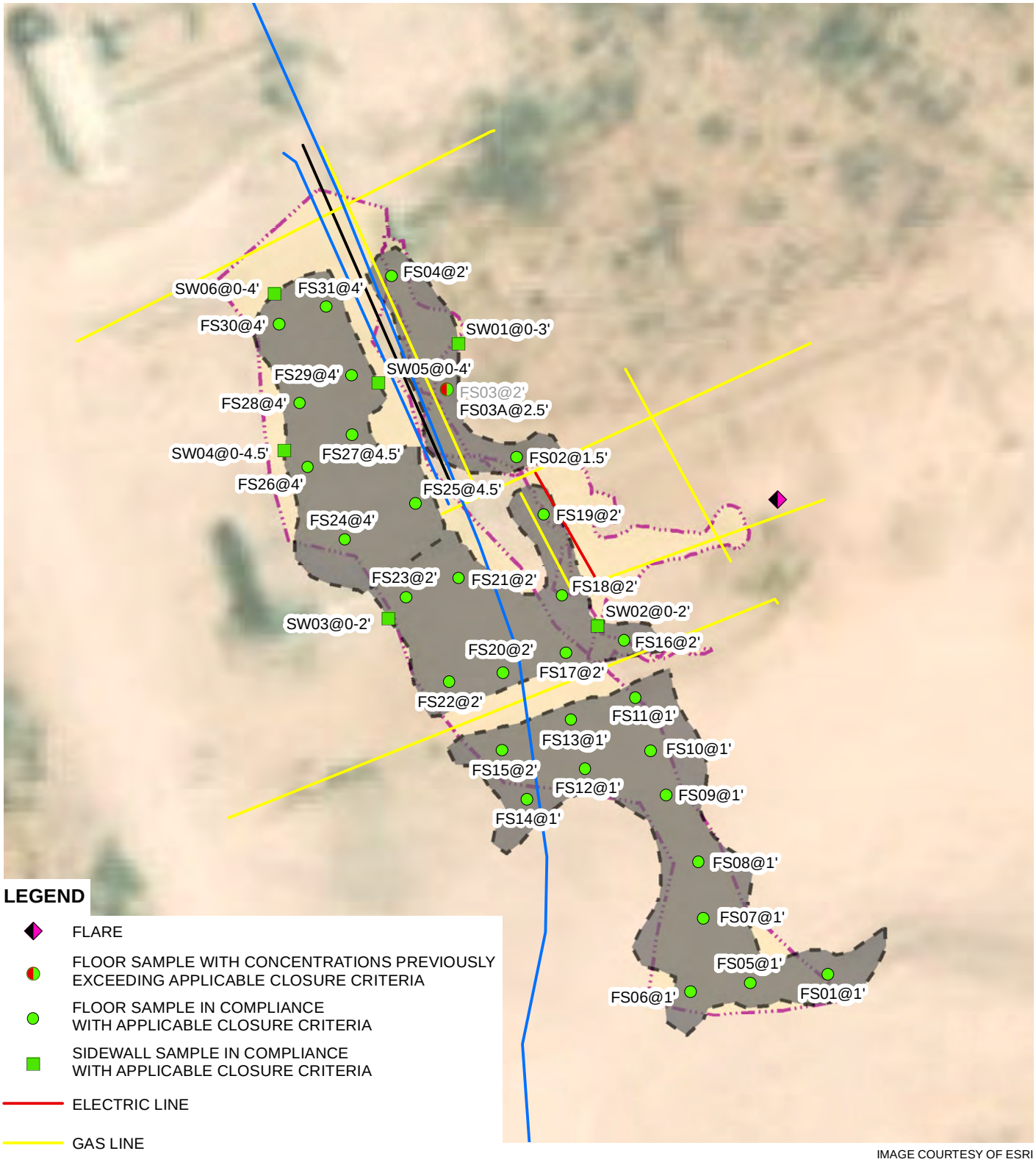
P:\XTO Energy\GIS\MXD\012921047_AVALON DELAWARE UNIT CTB\012921047_FIG01_SL_RECEPTOR_2021.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: INCIDENT NUMBER NAPP2108543210

FIGURE 2
SOIL SAMPLE LOCATIONS
AVALON DELAWARE UNIT CTB
UNIT C SEC 31 T20S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921047_AVALON DELAWARE UNIT CTB\012921047_FIG02_PRELIMINARY_2021.mxd



LEGEND

- FLARE
- FLOOR SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- GAS LINE
- MAIN PRODUCTION LINE
- WATER LINE
- EXCAVATION EXTENT
- RELEASE EXTENT

NOTE: INCIDENT NUMBER NAPP2108543210
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
AVALON DELAWARE UNIT CTB
UNIT C SEC 31 T20S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921047_AVALON DELAWARE UNIT CTB\012921047_FIG03_EXCAVATION_2021.mxd

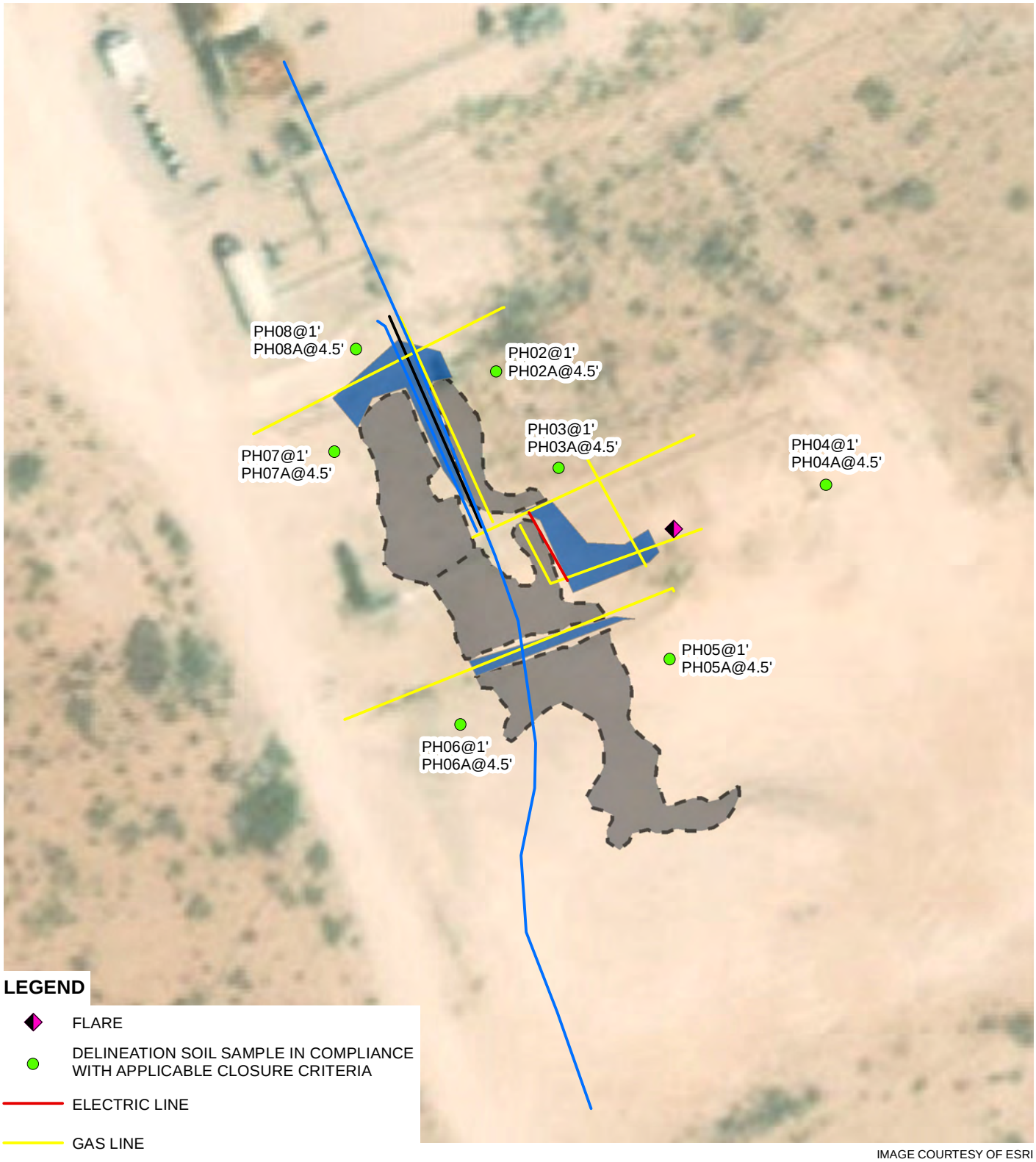


FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS AND DEFERRAL AREA
AVALON DELAWARE UNIT CTB
UNIT C SEC 31 T20S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921047_AVALON DELAWARE UNIT CTB\012921047_FIG04_DEFERRAL_2021.mxd

TABLES

Table 1

Soil Analytical Results
Avalon Delaware Unit CTB
Incident Number nAPP2108543210
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (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**
Surface Samples										
SS01	04/23/2021	0.5	<0.199	11.0	12,800	60.6	851	**12,861**	**13,700**	278
SS02	04/23/2021	0.5	<0.198	43.5	13,900	<49.8	1,250	**13,900**	**15,200**	192
SS03	04/23/2021	0.5	0.346	111	25,800	<49.9	3,730	**25,800**	**29,500**	331
SS04	04/23/2021	0.5	<0.202	16.0	15,100	<49.9	795	**15,100**	**15,900**	320
SS05	04/23/2021	0.5	<0.201	37.1	13,500	55.6	1,720	**13,556**	**18,600**	59.5
Excavation Floor Samples										
FS01	05/18/2021	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	2,220
FS02	05/20/2021	1.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	12.3
FS03	05/20/2021	2	<0.00199	<0.00398	2,270	<50.0	368	**2,270**	**2,640**	11.6
FS03A	06/02/2021	2.5	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	102
FS04	05/20/2021	2	<0.00199	<0.00398	71.1	<50.0	<50.0	<50.0	71.1	52.3
FS05	05/21/2021	1	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	32.9
FS06	05/21/2021	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	26.2
FS07	05/21/2021	1	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	6.37
FS08	05/21/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	76.4
FS09	05/21/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	11.5
FS10	05/21/2021	1	<0.00201	<0.00402	109	<49.9	<49.9	109	109	1260
FS11	05/21/2021	1	<0.00202	0.0141	175	<50.0	<50.0	175	175	146
FS12	05/21/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	35.4
FS13	05/21/2021	1	<0.00198	<0.00396	92.4	<50.0	<50.0	92.4	92.4	38.2

Table 1

Soil Analytical Results
Avalon Delaware Unit CTB
Incident Number nAPP2108543210
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (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**
FS14	05/21/2021	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	16.9
FS15	05/21/2021	2	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	21.9
FS16	05/21/2021	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	234
FS17	05/21/2021	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	228
FS18	05/21/2021	2	<0.00202	<0.00403	230	<49.9	<49.9	230	230	312
FS19	05/21/2021	2	<0.00199	<0.00398	59.6	<50.0	<50.0	59.6	59.6	232
FS20	05/21/2021	2	<0.00200	<0.00399	80.5	<50.0	<50.0	80.5	80.5	142
FS21	05/21/2021	2	<0.00199	<0.00398	96.9	<49.9	<49.9	96.9	96.9	29.3
FS22	05/21/2021	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	37.4
FS23	05/21/2021	2	<0.00200	<0.00400	<49.9	143	<49.9	143	143	107
FS24	05/24/2021	4	0.00623	0.00852	<49.9	<49.9	<49.9	<49.9	<49.9	12.1
FS25	05/24/2021	4.5	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	201
FS26	05/24/2021	4	<0.00198	<0.00397	67.0	<49.9	<49.9	67.0	67.0	77.4
FS27	05/24/2021	4.5	0.00286	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	15.4
FS28	05/24/2021	4	0.00449	0.00449	291	<49.9	<49.9	291	291	46.6
FS29	05/24/2021	4	<0.00200	<0.00400	586	<50.0	<50.0	586	586	36.6
FS30	05/24/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	25.9
FS31	05/24/2021	4	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	43.5
Excavation Sidewall Samples										
SW01	05/20/2021	0 - 3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	6.16

Table 1

Soil Analytical Results
Avalon Delaware Unit CTB
Incident Number nAPP2108543210
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (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**
SW02	05/24/2021	0 - 2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	447
SW03	05/24/2021	0 - 2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	367
SW04	05/24/2021	0 - 4.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	109
SW05	05/24/2021	0 - 4	<0.00199	<0.00398	101	<50.0	<50.0	101	101	17.9
SW06	05/24/2021	0 - 4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	16.9
Delineation Samples										
PH01	05/18/2021	1	<0.00199	0.587	2,620	113	346	2,733	3,080	16.5
PH01A	05/18/2021	5	<0.00198	0.00464	<50.0	<50.0	<50.0	<50.0	<50.0	471
PH02	05/26/2021	1	<0.00200	<0.00400	<49.9	<49.9	75.8	<49.9	75.8	60.8
PH02A	05/26/2021	4.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	1,420
PH03	05/26/2021	1	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	12.1
PH03A	05/26/2021	4.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	254
PH04	05/26/2021	1	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	131
PH04A	05/26/2021	4.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	99.4
PH05	05/26/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	81.9
PH05A	05/26/2021	4.5	0.00211	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	31.3
PH06	05/26/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	7.68
PH06A	05/26/2021	4.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	28.8

Table 1

Soil Analytical Results
Avalon Delaware Unit CTB
Incident Number nAPP2108543210
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (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**
PH07	05/26/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	21.7
PH07A	05/26/2021	4.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	112
PH08	05/26/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	7.73
PH08A	05/26/2021	4.5	0.00269	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	55.8

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

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

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

Greyed - indicates soil that was excavated

ATTACHMENT 1: REFERENCED WELL RECORDS

Received by OCD: 6/16/2021 9:31:55 AM

STATE ENGINEER OFFICE

WELL RECORD

Revised June 1972

47623

Section 1. GENERAL INFORMATION

(A) Owner of well Exxon Company USA Owner's Well No. _____

Street or Post Office Address P.O. Box 1600

City and State Midland, Texas 79702-1600

Well was drilled under Permit No. ~~CP-850~~ CP-851 and is located in the:

a. _____ ¼ ~~NW~~ SE ¼ ~~NW~~ NW ¼ ~~SW~~ NE ¼ of Section ~~32~~ 31 Township 20-S. Range 28-E. N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Glenn's Water Well Service License No. WD 421

Address P.O. Box 692 Tatum, New Mexico 88267

Drilling Began 9/14/95 Completed 9/14/95 Type tools rotary Size of hole 7 7/8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 255 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 115 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
205	230	25	lime	12

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8	.188		1	257	257	orange peel	181	257

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received 09-21-95

Quad _____ FWL _____ FSL _____

File No. ~~CP-850~~ CP-851 Use ~~OWD~~ Location No. 20.28.31.21411

Released to Imaging: 9/16/2021 2:55:52 PM

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	8	8	caleche and dirt
8	18	10	red clay
18	24	6	sand
24	65	41	sandy clay
65	84	19	rocky conglomerate
84	92	8	clay conglomerate
92	110	18	red clay
110	142	32	tan rocky clay
142	162	20	tan lime
162	164	2	red clay
164	167	3	break
167	182	15	red clay (some rocks)
182	188	6	lime (grey)
188	205	17	lime with red clay breaks
205	230	25	white lime with breaks (water)
230	240	10	tan lime and red clay
240	255	15	red clay

Section 7. REMARKS AND ADDITIONAL INFORMATION

'95 SEP 21 AM 10 34
STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Corky J Lem
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

New Mexico Office of the State Engineer
Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 476246 **Transaction Desc:** CP 00851 **File Date:** 09/10/1996

Primary Status: PMT Permit
Secondary Status: MTR Meter Installation Received
Person Assigned: *******
Applicant: EXXON CORPORATION
Contact: ALEX M CORREA

Events

	Date	Type	Description	Comment	Processed By
get images	09/10/1996	APP	Application Received	*	*******
	09/12/1996	FIN	Final Action on application		*******
	09/12/1996	WAP	General Approval Letter		*******
	01/01/2005	MTR	Meter Report Received		*******
	06/10/2011	ARV	Rec & Arch - file location	CP 00851 Box: 1876	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
CP 00851		3		

****Point of Diversion**

CP 00851	573791	3599940*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Remarks

THE USE OF THREE (3) ACRE FEET OF WATER PER YEAR IS REQUESTED. THIS WATER WILL BE USED FOR SANITARY PURPOSES AT A ONE MAN FIELD OFFICE AND FOR LIVESTOCK WATERING.

ABSTRACTORS NOTE: RENEWAL APPLICATION WAS ALSO RECEIVED ON 06/25/1997. NO ACTION WAS TAKEN ON APPLICATION DUE TO PERMIT NOT NEEDING RENEWAL. PER LETTER DATED 06/26/1997, RENEWAL APPLICATION WAS RETURNED AS WELL AS APPLICATION FEE.

ABSTRACTORS NOTE CONTINUED: IMAGES FOR THE RENEWAL APPLICATION WERE IMAGED AS CORRESPONDENCE UNDER THIS TRANACTION NUMBER UNDER "INFORMATION ONLY SHEET" SEE IMAGES FOR FURTHER INFORMATION.

ABSTRACTORS NOTE: NO WELL RECORD ON FILE WITH THE OSE. PERMIT STATES THIS IS AN EXISTING WELL. NO WELL RECORD DUE DATE IS GIVEN.

Conditions

1A Depth of the well shall not exceed the thickness of the valley fill.

5B A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records

shall be submitted to the District Supervisor on or before the 10th of Jan., April, July and Oct. of each year for the 3 preceeding calendar months.

H The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 09/12/1996

State Engineer: John R. D Antonio,

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/27/19 9:10 AM TRANSACTION SUMMARY

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Explore the **NEW** USGS National Water Dashboard to access real-time data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 323022104122501

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

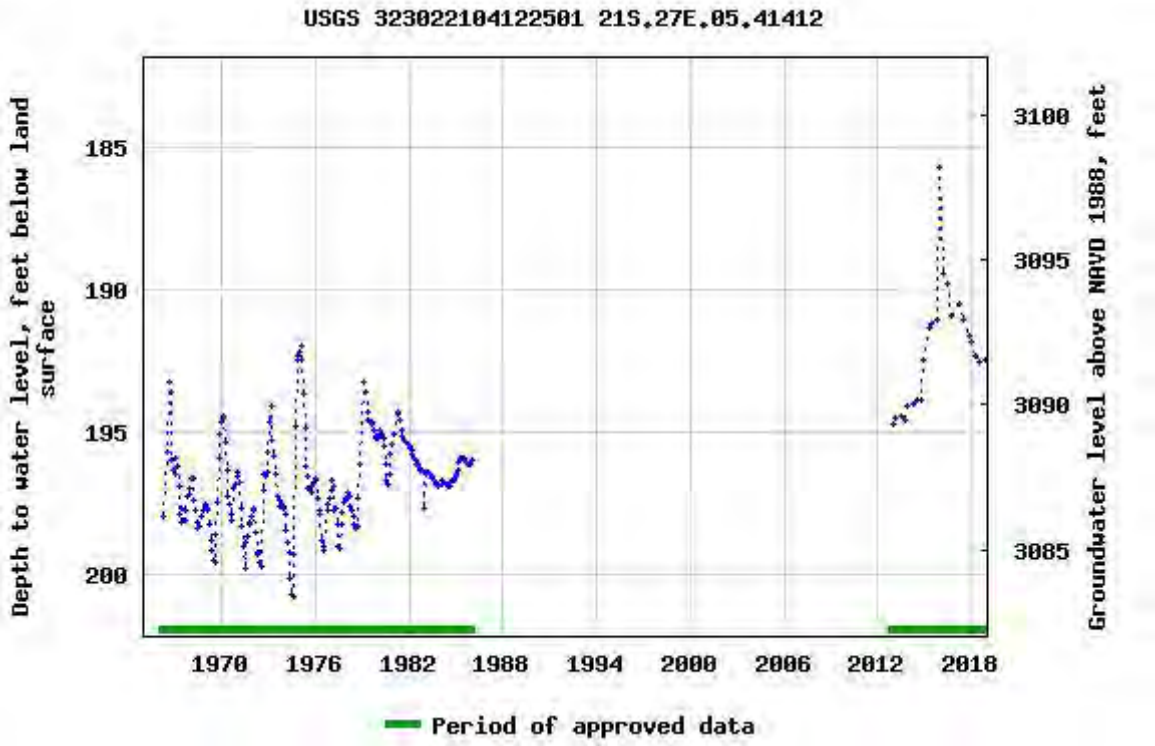
USGS 323022104122501 21S.27E.05.41412

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°30'51.1", Longitude 104°12'34.9" NAD83
Land-surface elevation 3,284 feet above NAVD88
The depth of the well is 2,565 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Capitan Limestone (313CPTN) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
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Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-06-03 12:54:48 EDT
0.87 0.64 nadww01

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOGS

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH01	5/18/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By WM	Method: Backhoe
Hole Diameter: 1.25'	Total Depth: 5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: 32.533717, -104.217724

Field Screening: Chloride, PID

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<184	405.3	N	PH01		1	CCHE	0' - 0.5': Caliche, poorly consolidated, silty, some sand, tan/off-white
D	<184	187.5	N			2		
						3	SM	0.5' - 5': Sand, fine grain, poorly graded, some silt, tan/brown
D	218	332.3	N			4		
D	425	2.3	N	PH01A		5		
						6		TD @ 5' bgs
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH02	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.533857, -104.217615	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	224	3	N	PH02		1	CCHE	0' - 0.5': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	0.5' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		4.5': shift from silt to clay
						4		
D	1,260	5	N	PH02A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH03	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.533762, -104.217544	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<179	0	N	PH03		1	CCHE	0' - 0.5': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	0.5' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		4.5': shift from silt to clay
						4		
D	395	0	N	PH03A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH04	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.533745, -104.217237	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	224	0	N	PH04		1	CCHE	0' - 1': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	1' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		
						4		4.5': shift from silt to clay
D	<179	0	N	PH04A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH05	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.533574, -104.217416	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<179	0	N	PH05		1	CCHE	0' - 1': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	1' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		
						4		4.5': shift from silt to clay
D	<179	0.5	N	PH05A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH06	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.53351, -104.217659	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<179	0	N	PH06		1	CCHE	0' - 1': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	1' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		
						4		4.5': shift from silt to clay
D	<179	0.5	N	PH06A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH07	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.533777, -104.2178	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<179	0.1	N	PH07		1	CCHE	0' - 1': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	1' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		
						4		4.5': shift from silt to clay
D	319	0.2	N	PH07A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH08	Date: 5/26/2021
Site Name:	Avalon Delaware Unit CTB
RP or Incident Number:	nAPP2108543210
LTE Job Number:	TE012921047
Logged By LAD	Method: Backhoe
Lat/Long: 32.533878, -104.217772	Field Screening: Chloride, PID
Hole Diameter: 1.25'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<179	0	N	PH08		1	CCHE	0' - 1': Caliche, poorly consolidated, silty, some sand, tan/off-white
						2	SM	1' - 4.5': Sand, fine grain, poorly graded, some clay, tan/brown
						3		
						4		4.5': shift from silt to clay
D	<179	0	N	PH08A			SC	
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy	Avalon Delaware Unit CTB Eddy County, New Mexico	

Photo No.	Date
1	April 26, 2021

View of release extent facing north west.

Photo No.	Date
2	May 20, 2021

View of excavation facing southeast.

PHOTOGRAPHIC LOG		
XTO Energy	Avalon Delaware Unit CTB Eddy County, New Mexico	

Photo No.	Date
3	May 21, 2021

View of excavation extent facing northwest.

Photo No.	Date
4	May 18, 2021

View of delineation (PH01) facing east.

ATTACHMENT 4: 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: 890-570-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
4/30/2021 12:41:11 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: ADU CTB

Laboratory Job ID: 890-570-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-570-1
Project/Site: ADU CTB SDG: TE012921047

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Job ID: 890-570-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-570-1

Receipt
The samples were received on 4/23/2021 4:43 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 3.6°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS01 (890-570-1), SS02 (890-570-2), SS03 (890-570-3), SS04 (890-570-4) and SS05 (890-570-5).

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: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Client Sample ID: SS01

Lab Sample ID: 890-570-1
Matrix: Solid
Date Collected: 04/23/21 10:18
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U *- *1	0.199		mg/Kg		04/26/21 15:48	04/27/21 07:15	100
Toluene	**0.214**	***- *1**	0.199		mg/Kg		04/26/21 15:48	04/27/21 07:15	100
Ethylbenzene	**1.87**	***- *1**	0.199		mg/Kg		04/26/21 15:48	04/27/21 07:15	100
m-Xylene & p-Xylene	**6.21**	***- *1**	0.398		mg/Kg		04/26/21 15:48	04/27/21 07:15	100
o-Xylene	**2.73**	***- *1**	0.199		mg/Kg		04/26/21 15:48	04/27/21 07:15	100
Xylenes, Total	**8.94**	***- *1**	0.398		mg/Kg		04/26/21 15:48	04/27/21 07:15	100
Total BTEX	**11.0**	***- *1**	0.398		mg/Kg		04/26/21 15:48	04/27/21 07:15	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/26/21 15:48*	*04/27/21 07:15*	*100*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*04/26/21 15:48*	*04/27/21 07:15*	*100*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**851**		499		mg/Kg		04/28/21 10:09	04/30/21 04:55	10
Diesel Range Organics (Over C10-C28)	**12800**		499		mg/Kg		04/28/21 10:09	04/30/21 04:55	10
Oil Range Organics (Over C28-C36)	<499	U	499		mg/Kg		04/28/21 10:09	04/30/21 04:55	10
Total TPH	**13700**		499		mg/Kg		04/28/21 10:09	04/30/21 04:55	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*187*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 04:55*	*10*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 04:55*	*10*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**278**		4.97		mg/Kg			04/29/21 09:04	1

Client Sample ID: SS02

Lab Sample ID: 890-570-2
Matrix: Solid
Date Collected: 04/23/21 10:21
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.198	U *- *1	0.198		mg/Kg		04/26/21 15:48	04/27/21 07:36	100
Toluene	**4.16**	***- *1**	0.198		mg/Kg		04/26/21 15:48	04/27/21 07:36	100
Ethylbenzene	**7.68**	***- *1**	0.198		mg/Kg		04/26/21 15:48	04/27/21 07:36	100
m-Xylene & p-Xylene	**23.0**	***- *1**	0.396		mg/Kg		04/26/21 15:48	04/27/21 07:36	100
o-Xylene	**8.61**	***- *1**	0.198		mg/Kg		04/26/21 15:48	04/27/21 07:36	100
Xylenes, Total	**31.6**	***- *1**	0.396		mg/Kg		04/26/21 15:48	04/27/21 07:36	100
Total BTEX	**43.5**	***- *1**	0.396		mg/Kg		04/26/21 15:48	04/27/21 07:36	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*04/26/21 15:48*	*04/27/21 07:36*	*100*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*04/26/21 15:48*	*04/27/21 07:36*	*100*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Client Sample ID: SS02

Lab Sample ID: 890-570-2
Matrix: Solid
Date Collected: 04/23/21 10:21
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1250		250		mg/Kg		04/28/21 10:09	04/30/21 05:16	5
Diesel Range Organics (Over C10-C28)	13900		250		mg/Kg		04/28/21 10:09	04/30/21 05:16	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/28/21 10:09	04/30/21 05:16	5
Total TPH	15200		250		mg/Kg		04/28/21 10:09	04/30/21 05:16	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*186*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 05:16*	*5*
o-Terphenyl	*164*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 05:16*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	192		4.97		mg/Kg			04/29/21 09:09	1

Client Sample ID: SS03

Lab Sample ID: 890-570-3
Matrix: Solid
Date Collected: 04/23/21 10:23
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.346	*- *1	0.200		mg/Kg		04/26/21 15:48	04/27/21 07:57	100
Toluene	16.7	*- *1	0.200		mg/Kg		04/26/21 15:48	04/27/21 07:57	100
Ethylbenzene	17.9	*- *1	0.200		mg/Kg		04/26/21 15:48	04/27/21 07:57	100
m-Xylene & p-Xylene	54.8	*- *1	0.400		mg/Kg		04/26/21 15:48	04/27/21 07:57	100
o-Xylene	21.5	*- *1	0.200		mg/Kg		04/26/21 15:48	04/27/21 07:57	100
Xylenes, Total	76.3	*- *1	0.400		mg/Kg		04/26/21 15:48	04/27/21 07:57	100
Total BTEX	111	*- *1	0.400		mg/Kg		04/26/21 15:48	04/27/21 07:57	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*162*	*S1+*	*70 - 130*	*04/26/21 15:48*	*04/27/21 07:57*	*100*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*04/26/21 15:48*	*04/27/21 07:57*	*100*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	3730		501		mg/Kg		04/28/21 10:09	04/30/21 05:44	10
Diesel Range Organics (Over C10-C28)	25800		501		mg/Kg		04/28/21 10:09	04/30/21 05:44	10
Oil Range Organics (Over C28-C36)	<501	U	501		mg/Kg		04/28/21 10:09	04/30/21 05:44	10
Total TPH	29500		501		mg/Kg		04/28/21 10:09	04/30/21 05:44	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*290*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 05:44*	*10*
o-Terphenyl	*293*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 05:44*	*10*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	331		4.97		mg/Kg			04/29/21 09:25	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Client Sample ID: SS04

Lab Sample ID: 890-570-4
Matrix: Solid
Date Collected: 04/23/21 10:28
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.202	U	0.202		mg/Kg		04/26/21 16:08	04/27/21 02:07	100
Toluene	**0.464**		0.202		mg/Kg		04/26/21 16:08	04/27/21 02:07	100
Ethylbenzene	**2.91**		0.202		mg/Kg		04/26/21 16:08	04/27/21 02:07	100
m-Xylene & p-Xylene	**8.57**		0.404		mg/Kg		04/26/21 16:08	04/27/21 02:07	100
o-Xylene	**4.05**		0.202		mg/Kg		04/26/21 16:08	04/27/21 02:07	100
Xylenes, Total	**12.6**		0.404		mg/Kg		04/26/21 16:08	04/27/21 02:07	100
Total BTEX	**16.0**		0.404		mg/Kg		04/26/21 16:08	04/27/21 02:07	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*159*	*S1+*	*70 - 130*	*04/26/21 16:08*	*04/27/21 02:07*	*100*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/26/21 16:08*	*04/27/21 02:07*	*100*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**795**		250		mg/Kg		04/28/21 10:09	04/30/21 06:11	5
Diesel Range Organics (Over C10-C28)	**15100**		250		mg/Kg		04/28/21 10:09	04/30/21 06:11	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/28/21 10:09	04/30/21 06:11	5
Total TPH	**15900**		250		mg/Kg		04/28/21 10:09	04/30/21 06:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*164*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 06:11*	*5*
o-Terphenyl	*158*	*S1+*	*70 - 130*	*04/28/21 10:09*	*04/30/21 06:11*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**320**		4.97		mg/Kg			04/29/21 09:31	1

Client Sample ID: SS05

Lab Sample ID: 890-570-5
Matrix: Solid
Date Collected: 04/23/21 10:32
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.201	U	0.201		mg/Kg		04/26/21 16:08	04/27/21 02:27	100
Toluene	**3.39**		0.201		mg/Kg		04/26/21 16:08	04/27/21 02:27	100
Ethylbenzene	**6.86**		0.201		mg/Kg		04/26/21 16:08	04/27/21 02:27	100
m-Xylene & p-Xylene	**19.6**		0.402		mg/Kg		04/26/21 16:08	04/27/21 02:27	100
o-Xylene	**7.20**		0.201		mg/Kg		04/26/21 16:08	04/27/21 02:27	100
Xylenes, Total	**26.8**		0.402		mg/Kg		04/26/21 16:08	04/27/21 02:27	100
Total BTEX	**37.1**		0.402		mg/Kg		04/26/21 16:08	04/27/21 02:27	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*188*	*S1+*	*70 - 130*	*04/26/21 16:08*	*04/27/21 02:27*	*100*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/26/21 16:08*	*04/27/21 02:27*	*100*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Client Sample ID: SS05

Lab Sample ID: 890-570-5
Matrix: Solid
Date Collected: 04/23/21 10:32
Date Received: 04/23/21 16:43
Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1720		250		mg/Kg		04/28/21 13:56	04/29/21 07:01	5
Diesel Range Organics (Over C10-C28)	13500		250		mg/Kg		04/28/21 13:56	04/29/21 07:01	5
Oil Range Organics (Over C28-C36)	3390	B	250		mg/Kg		04/28/21 13:56	04/29/21 07:01	5
Total TPH	18600	B	250		mg/Kg		04/28/21 13:56	04/29/21 07:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*150*	*S1+*	*70 - 130*	*04/28/21 13:56*	*04/29/21 07:01*	*5*
o-Terphenyl	*220*	*S1+*	*70 - 130*	*04/28/21 13:56*	*04/29/21 07:01*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.5		4.95		mg/Kg			04/29/21 09:36	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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)
890-570-1	SS01	108	99
890-570-2	SS02	128	109
890-570-3	SS03	162 S1+	119
890-570-4	SS04	159 S1+	97
890-570-5	SS05	188 S1+	98
LCS 880-2338/1-A	Lab Control Sample	95	105
LCS 880-2342/1-A	Lab Control Sample	116	102
LCSD 880-2338/2-A	Lab Control Sample Dup	92	109
LCSD 880-2342/2-A	Lab Control Sample Dup	113	104
MB 880-2209/5-A	Method Blank	96	91
MB 880-2314/5-A	Method Blank	106	85
MB 880-2338/5-A	Method Blank	114	103
MB 880-2342/5-A	Method Blank	91	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)
890-570-1	SS01	187 S1+	141 S1+
890-570-2	SS02	186 S1+	164 S1+
890-570-3	SS03	290 S1+	293 S1+
890-570-4	SS04	164 S1+	158 S1+
890-570-5	SS05	150 S1+	220 S1+
LCS 880-2430/2-A	Lab Control Sample	115	108
LCS 880-2454/2-A	Lab Control Sample	106	95
LCSD 880-2430/3-A	Lab Control Sample Dup	111	106
LCSD 880-2454/3-A	Lab Control Sample Dup	107	96
MB 880-2430/1-A	Method Blank	111	109
MB 880-2454/1-A	Method Blank	100	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2209/5-A
Matrix: Solid
Analysis Batch: 2286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2209

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/23/21 11:53	04/26/21 12:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/23/21 11:53	04/26/21 12:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/23/21 11:53	04/26/21 12:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/23/21 11:53	04/26/21 12:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/23/21 11:53	04/26/21 12:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/23/21 11:53	04/26/21 12:11	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/23/21 11:53	04/26/21 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*04/23/21 11:53*	*04/26/21 12:11*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*04/23/21 11:53*	*04/26/21 12:11*	*1*

Lab Sample ID: MB 880-2314/5-A
Matrix: Solid
Analysis Batch: 2315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2314

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/26/21 08:44	04/26/21 12:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/26/21 08:44	04/26/21 12:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/26/21 08:44	04/26/21 12:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/26/21 08:44	04/26/21 12:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/26/21 08:44	04/26/21 12:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/26/21 08:44	04/26/21 12:07	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/26/21 08:44	04/26/21 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*04/26/21 08:44*	*04/26/21 12:07*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*04/26/21 08:44*	*04/26/21 12:07*	*1*

Lab Sample ID: MB 880-2338/5-A
Matrix: Solid
Analysis Batch: 2315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2338

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/26/21 15:48	04/27/21 00:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/26/21 15:48	04/27/21 00:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/26/21 15:48	04/27/21 00:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/26/21 15:48	04/27/21 00:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/26/21 15:48	04/27/21 00:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/26/21 15:48	04/27/21 00:03	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/26/21 15:48	04/27/21 00:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*04/26/21 15:48*	*04/27/21 00:03*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/26/21 15:48*	*04/27/21 00:03*	*1*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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

Lab Sample ID: LCS 880-2338/1-A
Matrix: Solid
Analysis Batch: 2315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2338

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08044		mg/Kg		80	70 - 130		
Toluene			0.100	0.09159		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.08684		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene			0.200	0.1811		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.09065		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-2338/2-A
Matrix: Solid
Analysis Batch: 2315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2338

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.04572	*- *1	mg/Kg		46	70 - 130	55	35
Toluene			0.100	0.02608	*- *1	mg/Kg		26	70 - 130	111	35
Ethylbenzene			0.100	0.01119	*- *1	mg/Kg		11	70 - 130	154	35
m-Xylene & p-Xylene			0.200	0.02200	*- *1	mg/Kg		11	70 - 130	157	35
o-Xylene			0.100	0.01484	*- *1	mg/Kg		15	70 - 130	144	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: MB 880-2342/5-A
Matrix: Solid
Analysis Batch: 2286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2342

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/26/21 16:08	04/26/21 23:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/26/21 16:08	04/26/21 23:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/26/21 16:08	04/26/21 23:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/26/21 16:08	04/26/21 23:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/26/21 16:08	04/26/21 23:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/26/21 16:08	04/26/21 23:02	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/26/21 16:08	04/26/21 23:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*04/26/21 16:08*	*04/26/21 23:02*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*04/26/21 16:08*	*04/26/21 23:02*	*1*

Lab Sample ID: LCS 880-2342/1-A
Matrix: Solid
Analysis Batch: 2286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2342

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1019		mg/Kg		102	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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

Lab Sample ID: LCS 880-2342/1-A
Matrix: Solid
Analysis Batch: 2286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2342

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toluene			0.100	0.09773		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.1003		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.2147		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1106		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-2342/2-A
Matrix: Solid
Analysis Batch: 2286

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09599		mg/Kg		96	70 - 130	6	35
Toluene			0.100	0.08896		mg/Kg		89	70 - 130	9	35
Ethylbenzene			0.100	0.09141		mg/Kg		91	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.1943		mg/Kg		97	70 - 130	10	35
o-Xylene			0.100	0.09955		mg/Kg		100	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-2430/1-A
Matrix: Solid
Analysis Batch: 2466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2430

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		04/28/21 10:09	04/29/21 21:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/21 10:09	04/29/21 21:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/21 10:09	04/29/21 21:04	1
Total TPH	<50.0	U	50.0		mg/Kg		04/28/21 10:09	04/29/21 21:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/28/21 10:09*	*04/29/21 21:04*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/28/21 10:09*	*04/29/21 21:04*	*1*

Lab Sample ID: LCS 880-2430/2-A
Matrix: Solid
Analysis Batch: 2466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2430

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1076		mg/Kg		108	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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

Lab Sample ID: LCS 880-2430/2-A
Matrix: Solid
Analysis Batch: 2466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2430

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	991.3		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-2430/3-A
Matrix: Solid
Analysis Batch: 2466

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2430

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1053		mg/Kg		105	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	962.4		mg/Kg		96	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: MB 880-2454/1-A
Matrix: Solid
Analysis Batch: 2421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2454

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		04/28/21 13:56	04/28/21 22:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/21 13:56	04/28/21 22:08	1
OII Range Organics (Over C28-C36)	68.05		50.0		mg/Kg		04/28/21 13:56	04/28/21 22:08	1
Total TPH	68.05		50.0		mg/Kg		04/28/21 13:56	04/28/21 22:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/28/21 13:56*	*04/28/21 22:08*	*1*
o-Terphenyl	*98*		*70 - 130*	*04/28/21 13:56*	*04/28/21 22:08*	*1*

Lab Sample ID: LCS 880-2454/2-A
Matrix: Solid
Analysis Batch: 2421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2454

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	934.9		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	846.9		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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

Lab Sample ID: LCS 880-2454/2-A
Matrix: Solid
Analysis Batch: 2421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2454

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: LCSD 880-2454/3-A
Matrix: Solid
Analysis Batch: 2421

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2454

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1012		mg/Kg		101	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	864.4		mg/Kg		86	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2341/1-A
Matrix: Solid
Analysis Batch: 2449

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			04/28/21 21:53	1

Lab Sample ID: LCS 880-2341/2-A
Matrix: Solid
Analysis Batch: 2449

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	253.0		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-2341/3-A
Matrix: Solid
Analysis Batch: 2449

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	254.9		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

GC VOA

Prep Batch: 2209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2209/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 2286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-4	SS04	Total/NA	Solid	8021B	2342
890-570-5	SS05	Total/NA	Solid	8021B	2342
MB 880-2209/5-A	Method Blank	Total/NA	Solid	8021B	2209
MB 880-2342/5-A	Method Blank	Total/NA	Solid	8021B	2342
LCS 880-2342/1-A	Lab Control Sample	Total/NA	Solid	8021B	2342
LCSD 880-2342/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2342

Prep Batch: 2314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2314/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 2315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-1	SS01	Total/NA	Solid	8021B	2338
890-570-2	SS02	Total/NA	Solid	8021B	2338
890-570-3	SS03	Total/NA	Solid	8021B	2338
MB 880-2314/5-A	Method Blank	Total/NA	Solid	8021B	2314
MB 880-2338/5-A	Method Blank	Total/NA	Solid	8021B	2338
LCS 880-2338/1-A	Lab Control Sample	Total/NA	Solid	8021B	2338
LCSD 880-2338/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2338

Prep Batch: 2338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-1	SS01	Total/NA	Solid	5035	
890-570-2	SS02	Total/NA	Solid	5035	
890-570-3	SS03	Total/NA	Solid	5035	
MB 880-2338/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2338/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2338/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 2342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-4	SS04	Total/NA	Solid	5035	
890-570-5	SS05	Total/NA	Solid	5035	
MB 880-2342/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2342/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2342/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 2421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-5	SS05	Total/NA	Solid	8015B NM	2454
MB 880-2454/1-A	Method Blank	Total/NA	Solid	8015B NM	2454
LCS 880-2454/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2454
LCSD 880-2454/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2454

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

GC Semi VOA

Prep Batch: 2430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-1	SS01	Total/NA	Solid	8015NM Prep	
890-570-2	SS02	Total/NA	Solid	8015NM Prep	
890-570-3	SS03	Total/NA	Solid	8015NM Prep	
890-570-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-2430/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2430/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2430/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 2454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-2454/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2454/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2454/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-1	SS01	Total/NA	Solid	8015B NM	2430
890-570-2	SS02	Total/NA	Solid	8015B NM	2430
890-570-3	SS03	Total/NA	Solid	8015B NM	2430
890-570-4	SS04	Total/NA	Solid	8015B NM	2430
MB 880-2430/1-A	Method Blank	Total/NA	Solid	8015B NM	2430
LCS 880-2430/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2430
LCSD 880-2430/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2430

HPLC/IC

Leach Batch: 2341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-1	SS01	Soluble	Solid	DI Leach	
890-570-2	SS02	Soluble	Solid	DI Leach	
890-570-3	SS03	Soluble	Solid	DI Leach	
890-570-4	SS04	Soluble	Solid	DI Leach	
890-570-5	SS05	Soluble	Solid	DI Leach	
MB 880-2341/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2341/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2341/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-570-1	SS01	Soluble	Solid	300.0	2341
890-570-2	SS02	Soluble	Solid	300.0	2341
890-570-3	SS03	Soluble	Solid	300.0	2341
890-570-4	SS04	Soluble	Solid	300.0	2341
890-570-5	SS05	Soluble	Solid	300.0	2341
MB 880-2341/1-A	Method Blank	Soluble	Solid	300.0	2341
LCS 880-2341/2-A	Lab Control Sample	Soluble	Solid	300.0	2341
LCSD 880-2341/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2341

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Client Sample ID: SS01
Date Collected: 04/23/21 10:18
Date Received: 04/23/21 16:43

Lab Sample ID: 890-570-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2338	04/26/21 15:48	KL	XM
Total/NA	Analysis	8021B		100	2315	04/27/21 07:15	KL	XM
Total/NA	Prep	8015NM Prep			2430	04/28/21 10:09	DM	XM
Total/NA	Analysis	8015B NM		10	2466	04/30/21 04:55	AJ	XM
Soluble	Leach	DI Leach			2341	04/26/21 15:56	SC	XM
Soluble	Analysis	300.0		1	2449	04/29/21 09:04	WP	XM

Client Sample ID: SS02
Date Collected: 04/23/21 10:21
Date Received: 04/23/21 16:43

Lab Sample ID: 890-570-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2338	04/26/21 15:48	KL	XM
Total/NA	Analysis	8021B		100	2315	04/27/21 07:36	KL	XM
Total/NA	Prep	8015NM Prep			2430	04/28/21 10:09	DM	XM
Total/NA	Analysis	8015B NM		5	2466	04/30/21 05:16	AJ	XM
Soluble	Leach	DI Leach			2341	04/26/21 15:56	SC	XM
Soluble	Analysis	300.0		1	2449	04/29/21 09:09	WP	XM

Client Sample ID: SS03
Date Collected: 04/23/21 10:23
Date Received: 04/23/21 16:43

Lab Sample ID: 890-570-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2338	04/26/21 15:48	KL	XM
Total/NA	Analysis	8021B		100	2315	04/27/21 07:57	KL	XM
Total/NA	Prep	8015NM Prep			2430	04/28/21 10:09	DM	XM
Total/NA	Analysis	8015B NM		10	2466	04/30/21 05:44	AJ	XM
Soluble	Leach	DI Leach			2341	04/26/21 15:56	SC	XM
Soluble	Analysis	300.0		1	2449	04/29/21 09:25	WP	XM

Client Sample ID: SS04
Date Collected: 04/23/21 10:28
Date Received: 04/23/21 16:43

Lab Sample ID: 890-570-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2342	04/26/21 16:08	KL	XM
Total/NA	Analysis	8021B		100	2286	04/27/21 02:07	KL	XM
Total/NA	Prep	8015NM Prep			2430	04/28/21 10:09	DM	XM
Total/NA	Analysis	8015B NM		5	2466	04/30/21 06:11	AJ	XM
Soluble	Leach	DI Leach			2341	04/26/21 15:56	SC	XM
Soluble	Analysis	300.0		1	2449	04/29/21 09:31	WP	XM

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Client Sample ID: SS05

Date Collected: 04/23/21 10:32
Date Received: 04/23/21 16:43

Lab Sample ID: 890-570-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2342	04/26/21 16:08	KL	XM
Total/NA	Analysis	8021B		100	2286	04/27/21 02:27	KL	XM
Total/NA	Prep	8015NM Prep			2454	04/28/21 13:56	DM	XM
Total/NA	Analysis	8015B NM		5	2421	04/29/21 07:01	AJ	XM
Soluble	Leach	DI Leach			2341	04/26/21 15:56	SC	XM
Soluble	Analysis	300.0		1	2449	04/29/21 09:36	WP	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

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

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:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-570-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-570-1	SS01	Solid	04/23/21 10:18	04/23/21 16:43	- 0.5
890-570-2	SS02	Solid	04/23/21 10:21	04/23/21 16:43	- 0.5
890-570-3	SS03	Solid	04/23/21 10:23	04/23/21 16:43	- 0.5
890-570-4	SS04	Solid	04/23/21 10:28	04/23/21 16:43	- 0.5
890-570-5	SS05	Solid	04/23/21 10:32	04/23/21 16:43	- 0.5

Page 65 of 270

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:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP Permian office	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:	Elliot.Lee@wsp.com, Tacoma.Morrissey@wsp.com

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	X
P.O. Number:		Rush:	
Sampler's Name:	Elliot Lee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	3.8/3.6	Thermometer ID	IR#1-007
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

890-570 Chain of Custody

Work Order Notes

Cost Center 1056011001
Incident # NAPP2108543210

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
SS01	S	4/23/2021	10:18	0.5	1	X	X	X	Discrete
SS02	S	4/23/2021	10:21	0.5	1	X	X	X	Discrete
SS03	S	4/23/2021	10:23	0.5	1	X	X	X	Discrete
SS04	S	4/23/2021	10:28	0.5	1	X	X	X	Discrete
SS05	S	4/23/2021	10:32	0.5	1	X	X	X	Discrete

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		4.23.21 1627			
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 22 of 25

4/30/2021

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 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: 890-183 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 #: 890-570-1
Address: 1211 W Florida Ave	Due Date Requested: 4/29/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ADU CTB	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 Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/6035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
SS01 (890-570-1)	4/23/21	10 18 Mountain		Solid			X	X	X	1	
SS02 (890-570-2)	4/23/21	10 21 Mountain		Solid			X	X	X	1	
SS03 (890-570-3)	4/23/21	10 23 Mountain		Solid			X	X	X	1	
SS04 (890-570-4)	4/23/21	10 28 Mountain		Solid			X	X	X	1	
SS05 (890-570-5)	4/23/21	10 32 Mountain		Solid			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
Cee Cuts 4.26.21				4-26-21 3:00 PM	
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: 11/01/2020

Page 66 of 270
Received by OCD: 6/16/2021 9:31:55 AM
4/30/2021
Page 23 of 25
Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-570-1
SDG Number: TE012921047

Login Number: 570
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: 890-570-1
SDG Number: TE012921047

Login Number: 570
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/26/21 03:21 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").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-686-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/24/2021 6:58:36 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: ADU CTB

Laboratory Job ID: 890-686-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-686-1
Project/Site: ADU CTB SDG: TE012921047

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Job ID: 890-686-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-686-1

Receipt
The samples were received on 5/18/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-686-1) and PH01A (890-686-2).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-686-1) and PH01A (890-686-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: All quality control biased high indicating possible high bias in samples. All samples are non-detect under the implied high bias therefore the data has been qualified and reported. PH01 (890-686-1) and PH01A (890-686-2)

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: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Client Sample ID: PH01

Lab Sample ID: 890-686-1
Matrix: Solid
Date Collected: 05/18/21 10:00
Date Received: 05/18/21 15:15
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		05/19/21 12:00	05/19/21 18:35	1
Toluene	**0.0146**		0.00199		mg/Kg		05/19/21 12:00	05/19/21 18:35	1
Ethylbenzene	**0.0915**		0.00199		mg/Kg		05/19/21 12:00	05/19/21 18:35	1
m-Xylene & p-Xylene	**0.320**		0.00398		mg/Kg		05/19/21 12:00	05/19/21 18:35	1
o-Xylene	**0.161**		0.00199		mg/Kg		05/19/21 12:00	05/19/21 18:35	1
Xylenes, Total	**0.481**		0.00398		mg/Kg		05/19/21 12:00	05/19/21 18:35	1
Total BTEX	**0.587**		0.00398		mg/Kg		05/19/21 12:00	05/19/21 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*217*	*S1+*	*70 - 130*	*05/19/21 12:00*	*05/19/21 18:35*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/19/21 12:00*	*05/19/21 18:35*	*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	**113**		49.9		mg/Kg		05/20/21 09:59	05/21/21 19:09	1
Diesel Range Organics (Over C10-C28)	**2620**		49.9		mg/Kg		05/20/21 09:59	05/21/21 19:09	1
Oil Range Organics (Over C28-C36)	**346**		49.9		mg/Kg		05/20/21 09:59	05/21/21 19:09	1
Total TPH	**3080**		49.9		mg/Kg		05/20/21 09:59	05/21/21 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*05/19/21 14:53*	*05/19/21 22:54*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/19/21 14:53*	*05/19/21 22:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		5.00		mg/Kg			05/19/21 22:31	1

Client Sample ID: PH01A

Lab Sample ID: 890-686-2
Matrix: Solid
Date Collected: 05/18/21 10:16
Date Received: 05/18/21 15:15
Sample Depth: 5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:55	1
Toluene	**0.00464**		0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:55	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:55	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/19/21 12:00	05/19/21 18:55	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:55	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/19/21 12:00	05/19/21 18:55	1
Total BTEX	**0.00464**		0.00397		mg/Kg		05/19/21 12:00	05/19/21 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*05/19/21 12:00*	*05/19/21 18:55*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/19/21 12:00*	*05/19/21 18:55*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Client Sample ID: PH01A

Date Collected: 05/18/21 10:16
Date Received: 05/18/21 15:15
Sample Depth: 5'

Lab Sample ID: 890-686-2

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		05/19/21 14:53	05/19/21 23:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/19/21 14:53	05/19/21 23:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/19/21 14:53	05/19/21 23:15	1
Total TPH	<50.0	U	50.0		mg/Kg		05/19/21 14:53	05/19/21 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*05/19/21 14:53*	*05/19/21 23:15*	*1*
o-Terphenyl	*115*		*70 - 130*	*05/19/21 14:53*	*05/19/21 23:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**471**		5.04		mg/Kg			05/19/21 22:37	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

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)
890-686-1	PH01	217 S1+	89
890-686-2	PH01A	111	97
LCS 880-3212/1-A	Lab Control Sample	109	101
LCSD 880-3212/2-A	Lab Control Sample Dup	116	99
MB 880-3212/5-A	Method Blank	88	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)
890-686-1	PH01	103	103
890-686-2	PH01A	103	115
LCS 880-3271/2-A	Lab Control Sample	107	98
LCSD 880-3271/3-A	Lab Control Sample Dup	102	95
MB 880-3271/1-A	Method Blank	95	96

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3212/5-A
Matrix: Solid
Analysis Batch: 3218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3212

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/19/21 09:00	05/19/21 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/19/21 09:00*	*05/19/21 11:30*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/19/21 09:00*	*05/19/21 11:30*	*1*

Lab Sample ID: LCS 880-3212/1-A
Matrix: Solid
Analysis Batch: 3218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3212

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07738		mg/Kg		77	70 - 130		
Toluene			0.100	0.08113		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.09084		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1903		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09828		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-3212/2-A
Matrix: Solid
Analysis Batch: 3218

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3212

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07397		mg/Kg		74	70 - 130	5	35
Toluene			0.100	0.07950		mg/Kg		79	70 - 130	2	35
Ethylbenzene			0.100	0.09287		mg/Kg		93	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1968		mg/Kg		98	70 - 130	3	35
o-Xylene			0.100	0.1026		mg/Kg		103	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

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

Lab Sample ID: MB 880-3271/1-A
Matrix: Solid
Analysis Batch: 3308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3271

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		05/20/21 09:59	05/21/21 10:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/21 09:59	05/21/21 10:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/21 09:59	05/21/21 10:42	1
Total TPH	<50.0	U	50.0		mg/Kg		05/20/21 09:59	05/21/21 10:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/20/21 09:59*	*05/21/21 10:42*	*1*
o-Terphenyl	*96*		*70 - 130*	*05/20/21 09:59*	*05/21/21 10:42*	*1*

Lab Sample ID: LCS 880-3271/2-A
Matrix: Solid
Analysis Batch: 3308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3271

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1007		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1103		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: LCSD 880-3271/3-A
Matrix: Solid
Analysis Batch: 3308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3271

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	917.3		mg/Kg		92	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1080		mg/Kg		108	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3235/1-A
Matrix: Solid
Analysis Batch: 3259

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			05/19/21 21:19	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3235/2-A
Matrix: Solid
Analysis Batch: 3259

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	253.5		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-3235/3-A
Matrix: Solid
Analysis Batch: 3259

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	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

GC VOA

Prep Batch: 3212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Total/NA	Solid	5035	
890-686-2	PH01A	Total/NA	Solid	5035	
MB 880-3212/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3212/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3212/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Total/NA	Solid	8021B	3212
890-686-2	PH01A	Total/NA	Solid	8021B	3212
MB 880-3212/5-A	Method Blank	Total/NA	Solid	8021B	3212
LCS 880-3212/1-A	Lab Control Sample	Total/NA	Solid	8021B	3212
LCSD 880-3212/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3212

GC Semi VOA

Analysis Batch: 3224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Total/NA	Solid	8015B NM	3250
890-686-2	PH01A	Total/NA	Solid	8015B NM	3250

Prep Batch: 3250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Total/NA	Solid	8015NM Prep	
890-686-2	PH01A	Total/NA	Solid	8015NM Prep	

Prep Batch: 3271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Total/NA	Solid	8015NM Prep	
MB 880-3271/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3271/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3271/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Total/NA	Solid	8015B NM	3271
MB 880-3271/1-A	Method Blank	Total/NA	Solid	8015B NM	3271
LCS 880-3271/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3271
LCSD 880-3271/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3271

HPLC/IC

Leach Batch: 3235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Soluble	Solid	DI Leach	
890-686-2	PH01A	Soluble	Solid	DI Leach	
MB 880-3235/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3235/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3235/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

HPLC/IC

Analysis Batch: 3259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-686-1	PH01	Soluble	Solid	300.0	3235
890-686-2	PH01A	Soluble	Solid	300.0	3235
MB 880-3235/1-A	Method Blank	Soluble	Solid	300.0	3235
LCS 880-3235/2-A	Lab Control Sample	Soluble	Solid	300.0	3235
LCSD 880-3235/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3235

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Client Sample ID: PH01

Lab Sample ID: 890-686-1

Date Collected: 05/18/21 10:00
Date Received: 05/18/21 15:15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3212	05/19/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3218	05/19/21 18:35	KL	XEN MID
Total/NA	Prep	8015NM Prep			3250	05/19/21 14:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3224	05/19/21 22:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			3271	05/20/21 09:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3308	05/21/21 19:09	AJ	XEN MID
Soluble	Leach	DI Leach			3235	05/19/21 15:00	CH	XEN MID
Soluble	Analysis	300.0		1	3259	05/19/21 22:31	SC	XEN MID

Client Sample ID: PH01A

Lab Sample ID: 890-686-2

Date Collected: 05/18/21 10:16
Date Received: 05/18/21 15:15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3212	05/19/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3218	05/19/21 18:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			3250	05/19/21 14:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3224	05/19/21 23:15	AJ	XEN MID
Soluble	Leach	DI Leach			3235	05/19/21 15:00	CH	XEN MID
Soluble	Analysis	300.0		1	3259	05/19/21 22:37	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: 890-686-1
Project/Site: ADU CTB SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-686-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-686-1	PH01	Solid	05/18/21 10:00	05/18/21 15:15	1'
890-686-2	PH01A	Solid	05/18/21 10:16	05/18/21 15:15	5'

Page 85 of 270

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

5/24/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, dan.moir@wsp.com

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	✓
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	5.1/5.0	Thermometer ID	T-NM-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)
PH01	s	5/18/2021	10:00	1'	1	x	x	x
PH01A	s	5/18/2021	10:16	5'	1	x	x	x

890-686 Chain of Custody

Work Order Notes

Incident ID: nAPP2111852118
Cost Center: 1067601001

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

Sample Comments

PH01: Discrete
PH01A: Discrete

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	Gabby Ordonez	5/18/21 15:15	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 17 of 20

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 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: 890-223 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 #: 890-686-1
Address: 1211 W Florida Ave	Due Date Requested: 5/24/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ADU CTB	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 Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
			Preservation Code:								
PH01 (890-686-1)	5/18/21	10 00 Mountain		Solid			X	X	X	1	
PH01A (890-686-2)	5/18/21	10 16 Mountain		Solid			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 Cuto 5-19-21	Date/Time:	Company	Received by:	Date/Time: 5-19-21 2:30 PM	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: 11/01/2020

Page 86 of 270
Received by OCD: 6/16/2021 9:31:55 AM
5/24/2021
Page 18 of 20
Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-686-1
SDG Number: TE012921047

Login Number: 686
List Number: 1
Creator: Ordonez, Gabby

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: 890-686-1
SDG Number: TE012921047

Login Number: 686
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/19/21 02:28 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").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-694-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/20/2021 1:26:11 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: ADU CTB

Laboratory Job ID: 890-694-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-694-1
Project/Site: ADU CTB SDG: TE012921047

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: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

Job ID: 890-694-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-694-1

Comments
No additional comments.

Receipt
The sample was received on 5/18/2021 3:15 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 was 5.0º C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-694-1).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: FS01 (890-694-1). 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 8015B NM: All quality control biased high indicating possible high bias in samples. All sample is non-detect under the implied high bias therefore the data has been qualified and reported.
FS01 (890-694-1)

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 880-3258 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: FS01 (890-694-1) and (890-676-A-4-D).

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

Client Sample ID: FS01

Date Collected: 05/18/21 12:25
Date Received: 05/18/21 15:15
Sample Depth: 1'

Lab Sample ID: 890-694-1

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		05/19/21 12:00	05/19/21 18:14	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:14	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:14	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/19/21 12:00	05/19/21 18:14	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/19/21 12:00	05/19/21 18:14	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/19/21 12:00	05/19/21 18:14	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/19/21 12:00	05/19/21 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/19/21 12:00*	*05/19/21 18:14*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/19/21 12:00*	*05/19/21 18:14*	*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		05/19/21 14:53	05/19/21 23:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/19/21 14:53	05/19/21 23:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/19/21 14:53	05/19/21 23:36	1
Total TPH	<50.0	U	50.0		mg/Kg		05/19/21 14:53	05/19/21 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*05/19/21 14:53*	*05/19/21 23:36*	*1*
o-Terphenyl	*112*		*70 - 130*	*05/19/21 14:53*	*05/19/21 23:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2220**		50.2		mg/Kg			05/19/21 20:53	10

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

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)
890-694-1	FS01	88	93
LCS 880-3212/1-A	Lab Control Sample	109	101
LCSD 880-3212/2-A	Lab Control Sample Dup	116	99
MB 880-3212/5-A	Method Blank	88	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)
890-694-1	FS01	97	112

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3212/5-A
Matrix: Solid
Analysis Batch: 3218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3212

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/19/21 09:00	05/19/21 11:30	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/19/21 09:00	05/19/21 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/19/21 09:00*	*05/19/21 11:30*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/19/21 09:00*	*05/19/21 11:30*	*1*

Lab Sample ID: LCS 880-3212/1-A
Matrix: Solid
Analysis Batch: 3218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3212

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07738		mg/Kg		77	70 - 130		
Toluene			0.100	0.08113		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.09084		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1903		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09828		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-3212/2-A
Matrix: Solid
Analysis Batch: 3218

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3212

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07397		mg/Kg		74	70 - 130	5	35
Toluene			0.100	0.07950		mg/Kg		79	70 - 130	2	35
Ethylbenzene			0.100	0.09287		mg/Kg		93	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1968		mg/Kg		98	70 - 130	3	35
o-Xylene			0.100	0.1026		mg/Kg		103	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3231/1-A
Matrix: Solid
Analysis Batch: 3258

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			05/19/21 17:36	1

Lab Sample ID: LCS 880-3231/2-A
Matrix: Solid
Analysis Batch: 3258

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	255.0		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-3231/3-A
Matrix: Solid
Analysis Batch: 3258

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	254.5		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

GC VOA

Prep Batch: 3212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-694-1	FS01	Total/NA	Solid	5035	
MB 880-3212/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3212/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3212/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-694-1	FS01	Total/NA	Solid	8021B	3212
MB 880-3212/5-A	Method Blank	Total/NA	Solid	8021B	3212
LCS 880-3212/1-A	Lab Control Sample	Total/NA	Solid	8021B	3212
LCSD 880-3212/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3212

GC Semi VOA

Analysis Batch: 3224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-694-1	FS01	Total/NA	Solid	8015B NM	3250

Prep Batch: 3250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-694-1	FS01	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-694-1	FS01	Soluble	Solid	DI Leach	
MB 880-3231/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3231/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3231/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-694-1	FS01	Soluble	Solid	300.0	3231
MB 880-3231/1-A	Method Blank	Soluble	Solid	300.0	3231
LCS 880-3231/2-A	Lab Control Sample	Soluble	Solid	300.0	3231
LCSD 880-3231/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3231

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

Client Sample ID: FS01

Date Collected: 05/18/21 12:25
Date Received: 05/18/21 15:15

Lab Sample ID: 890-694-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3212	05/19/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3218	05/19/21 18:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			3250	05/19/21 14:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3224	05/19/21 23:36	AJ	XEN MID
Soluble	Leach	DI Leach			3231	05/19/21 09:31	CH	XEN MID
Soluble	Analysis	300.0		10	3258	05/19/21 20:53	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: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-694-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-694-1	FS01	Solid	05/18/21 12:25	05/18/21 15:15	1'

Page 102 of 270

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

5/20/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, dan.moir@wsp.com

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine ☐	
P.O. Number:	Eddy	Rush: 48hr	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	5.2/5.0	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)
FS01	s	5/18/2021	12:25	1'	1	x	x	x

890-694 Chain of Custody

Work Order Notes

Incident ID: nAPP2111852118
Cost Center: 1067601001

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

Sample Comments

Discrete

Page 14 of 17

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		Eglbey Ordonez	5/18/21 15:15	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 6/16/2021 9:31:55 AM
Released to Imaging: 9/16/2021 2:55:52 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: 890-223 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 #: 890-694-1
Address: 1211 W Florida Ave	Due Date Requested: 5/21/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: ADU CTB	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/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FS01 (890-694-1)	5/18/21	12 25 Mountain		Solid			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 Cuffo 5.19.21	Date/Time:	Company	Received by:	Date/Time: 5-19-21 2130 P.M	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: 11/01/2020

Page 103 of 270
Received by OCD: 6/16/2021 9:31:55 AM
5/20/2021
Page 15 of 17
Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-694-1
SDG Number: TE012921047

Login Number: 694
List Number: 1
Creator: Ordonez, Gabby

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: 890-694-1
SDG Number: TE012921047

Login Number: 694
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/19/21 02:25 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").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-724-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/28/2021 1:40:19 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: ADU CTB

Laboratory Job ID: 890-724-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-724-1
Project/Site: ADU CTB SDG: TE012921047

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: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Job ID: 890-724-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-724-1

Receipt
The samples were received on 5/24/2021 4:32 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 3.8°C

Receipt Exceptions
The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: FS02 (890-724-1), FS03 (890-724-2), FS04 (890-724-3) and SW01 (890-724-4).
BTEX8021

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: SW01 (890-724-4). 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: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Client Sample ID: FS02

Lab Sample ID: 890-724-1
Matrix: Solid
Date Collected: 05/20/21 09:25
Date Received: 05/24/21 16:32
Sample Depth: - 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/26/21 16:00	05/27/21 13:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/26/21 16:00	05/27/21 13:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/26/21 16:00	05/27/21 13:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/26/21 16:00	05/27/21 13:10	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/26/21 16:00	05/27/21 13:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/26/21 16:00	05/27/21 13:10	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/26/21 16:00	05/27/21 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/26/21 16:00*	*05/27/21 13:10*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*05/26/21 16:00*	*05/27/21 13:10*	*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		05/26/21 10:57	05/26/21 17:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/21 10:57	05/26/21 17:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 10:57	05/26/21 17:46	1
Total TPH	<49.9	U	49.9		mg/Kg		05/26/21 10:57	05/26/21 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/26/21 10:57*	*05/26/21 17:46*	*1*
o-Terphenyl	*115*		*70 - 130*	*05/26/21 10:57*	*05/26/21 17:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.3**		5.00		mg/Kg			05/26/21 21:58	1

Client Sample ID: FS03

Lab Sample ID: 890-724-2
Matrix: Solid
Date Collected: 05/20/21 13:39
Date Received: 05/24/21 16:32
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		05/26/21 16:00	05/27/21 13:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 16:00	05/27/21 13:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 16:00	05/27/21 13:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 16:00	05/27/21 13:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 16:00	05/27/21 13:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 16:00	05/27/21 13:30	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 16:00	05/27/21 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*05/26/21 16:00*	*05/27/21 13:30*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/26/21 16:00*	*05/27/21 13:30*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Client Sample ID: FS03

Lab Sample ID: 890-724-2
Matrix: Solid
Date Collected: 05/20/21 13:39
Date Received: 05/24/21 16:32
Sample Depth: - 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	<50.0	U	50.0		mg/Kg		05/26/21 10:57	05/26/21 18:29	1
Diesel Range Organics (Over C10-C28)	**2270**		50.0		mg/Kg		05/26/21 10:57	05/26/21 18:29	1
Oil Range Organics (Over C28-C36)	**368**		50.0		mg/Kg		05/26/21 10:57	05/26/21 18:29	1
Total TPH	**2640**		50.0		mg/Kg		05/26/21 10:57	05/26/21 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*05/26/21 10:57*	*05/26/21 18:29*	*1*
o-Terphenyl	*98*		*70 - 130*	*05/26/21 10:57*	*05/26/21 18:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.6**		5.00		mg/Kg			05/26/21 22:03	1

Client Sample ID: FS04

Lab Sample ID: 890-724-3
Matrix: Solid
Date Collected: 05/20/21 13:41
Date Received: 05/24/21 16:32
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		05/26/21 09:40	05/27/21 04:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 04:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 04:10	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*05/26/21 09:40*	*05/27/21 04:10*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*05/26/21 09:40*	*05/27/21 04:10*	*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		05/26/21 10:57	05/26/21 18:50	1
Diesel Range Organics (Over C10-C28)	**71.1**		50.0		mg/Kg		05/26/21 10:57	05/26/21 18:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 10:57	05/26/21 18:50	1
Total TPH	**71.1**		50.0		mg/Kg		05/26/21 10:57	05/26/21 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/26/21 10:57*	*05/26/21 18:50*	*1*
o-Terphenyl	*100*		*70 - 130*	*05/26/21 10:57*	*05/26/21 18:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.3**		5.00		mg/Kg			05/26/21 22:08	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Client Sample ID: SW01

Date Collected: 05/20/21 13:45
Date Received: 05/24/21 16:32
Sample Depth: 0 - 2

Lab Sample ID: 890-724-4

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		05/26/21 09:40	05/27/21 04:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/26/21 09:40	05/27/21 04:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/26/21 09:40	05/27/21 04:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/26/21 09:40	05/27/21 04:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/26/21 09:40	05/27/21 04:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/26/21 09:40	05/27/21 04:30	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/26/21 09:40	05/27/21 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/26/21 09:40*	*05/27/21 04:30*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*05/26/21 09:40*	*05/27/21 04:30*	*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		05/26/21 10:57	05/26/21 19:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/21 10:57	05/26/21 19:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 10:57	05/26/21 19:12	1
Total TPH	<49.9	U	49.9		mg/Kg		05/26/21 10:57	05/26/21 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*05/26/21 10:57*	*05/26/21 19:12*	*1*
o-Terphenyl	*70*		*70 - 130*	*05/26/21 10:57*	*05/26/21 19:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.16**		5.04		mg/Kg			05/27/21 03:52	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

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)
890-724-1	FS02	107	101
890-724-2	FS03	127	104
890-724-3	FS04	93	105
890-724-4	SW01	107	124
LCS 880-3517/1-A	Lab Control Sample	81	116
LCS 880-3541/1-A	Lab Control Sample	112	104
LCSD 880-3517/2-A	Lab Control Sample Dup	84	117
LCSD 880-3541/2-A	Lab Control Sample Dup	113	104
MB 880-3414/5-A	Method Blank	109	114
MB 880-3517/5-A	Method Blank	98	87
MB 880-3541/5-A	Method Blank	87	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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-724-1	FS02	112	115
890-724-2	FS03	100	98
890-724-3	FS04	96	100
890-724-4	SW01	71	70
LCS 880-3527/2-A	Lab Control Sample	100	95
LCSD 880-3527/3-A	Lab Control Sample Dup	101	96
MB 880-3527/1-A	Method Blank	100	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3414/5-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 08:45	05/26/21 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*05/26/21 08:45*	*05/26/21 11:39*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*05/26/21 08:45*	*05/26/21 11:39*	*1*

Lab Sample ID: MB 880-3517/5-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/26/21 23:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/26/21 09:40*	*05/26/21 23:22*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/26/21 09:40*	*05/26/21 23:22*	*1*

Lab Sample ID: LCS 880-3517/1-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1039		mg/Kg		104	70 - 130		
Toluene			0.100	0.09244		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.08359		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1660		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08061		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

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

Lab Sample ID: LCSD 880-3517/2-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1097		mg/Kg		110	70 - 130	5	35
Toluene			0.100	0.09767		mg/Kg		98	70 - 130	6	35
Ethylbenzene			0.100	0.08869		mg/Kg		89	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	4	35
o-Xylene			0.100	0.08510		mg/Kg		85	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-3541/5-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3541

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 16:00	05/27/21 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/26/21 16:00*	*05/27/21 11:26*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/26/21 16:00*	*05/27/21 11:26*	*1*

Lab Sample ID: LCS 880-3541/1-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3541

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.1094		mg/Kg		109	70 - 130
Toluene			0.100	0.1037		mg/Kg		104	70 - 130
Ethylbenzene			0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene			0.200	0.2293		mg/Kg		115	70 - 130
o-Xylene			0.100	0.1137		mg/Kg		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-3541/2-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3541

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1083		mg/Kg		108	70 - 130	1	35

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QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

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

Lab Sample ID: LCSD 880-3541/2-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3541

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1039		mg/Kg		104	70 - 130	0	35
Ethylbenzene			0.100	0.1087		mg/Kg		109	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2353		mg/Kg		118	70 - 130	3	35
o-Xylene			0.100	0.1177		mg/Kg		118	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-3527/1-A
Matrix: Solid
Analysis Batch: 3504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3527

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		05/26/21 10:57	05/26/21 12:45	1
Diesel Range Organics (Over C10-C28)		<50.0	U	50.0		mg/Kg		05/26/21 10:57	05/26/21 12:45	1
OII Range Organics (Over C28-C36)		<50.0	U	50.0		mg/Kg		05/26/21 10:57	05/26/21 12:45	1
Total TPH		<50.0	U	50.0		mg/Kg		05/26/21 10:57	05/26/21 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*05/26/21 10:57*	*05/26/21 12:45*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/26/21 10:57*	*05/26/21 12:45*	*1*

Lab Sample ID: LCS 880-3527/2-A
Matrix: Solid
Analysis Batch: 3504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3527

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1073		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1174		mg/Kg		117	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: LCSD 880-3527/3-A
Matrix: Solid
Analysis Batch: 3504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3527

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	967.4		mg/Kg		97	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1193		mg/Kg		119	70 - 130	2	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3467/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3542

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/27/21 03:37	1

Lab Sample ID: LCS 880-3467/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3542

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 880-3467/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3542

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	257.6		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-724-4 MS — **Client Sample ID: SW01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	6.16		252	262.9		mg/Kg		102	90 - 110		

Lab Sample ID: 890-724-4 MSD — **Client Sample ID: SW01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.16		252	262.9		mg/Kg		102	90 - 110	0	20

Lab Sample ID: MB 880-3466/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3556

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/26/21 19:33	1

Lab Sample ID: LCS 880-3466/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 3556

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.6		mg/Kg		99	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-3466/3-A
Matrix: Solid
Analysis Batch: 3556

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	245.9		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

GC VOA

Prep Batch: 3414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3414/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 3497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-3	FS04	Total/NA	Solid	8021B	3517
890-724-4	SW01	Total/NA	Solid	8021B	3517
MB 880-3414/5-A	Method Blank	Total/NA	Solid	8021B	3414
MB 880-3517/5-A	Method Blank	Total/NA	Solid	8021B	3517
LCS 880-3517/1-A	Lab Control Sample	Total/NA	Solid	8021B	3517
LCSD 880-3517/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3517

Prep Batch: 3517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-3	FS04	Total/NA	Solid	5035	
890-724-4	SW01	Total/NA	Solid	5035	
MB 880-3517/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3517/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3517/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 3541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-1	FS02	Total/NA	Solid	5035	
890-724-2	FS03	Total/NA	Solid	5035	
MB 880-3541/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3541/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3541/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-1	FS02	Total/NA	Solid	8021B	3541
890-724-2	FS03	Total/NA	Solid	8021B	3541
MB 880-3541/5-A	Method Blank	Total/NA	Solid	8021B	3541
LCS 880-3541/1-A	Lab Control Sample	Total/NA	Solid	8021B	3541
LCSD 880-3541/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3541

GC Semi VOA

Analysis Batch: 3504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-1	FS02	Total/NA	Solid	8015B NM	3527
890-724-2	FS03	Total/NA	Solid	8015B NM	3527
890-724-3	FS04	Total/NA	Solid	8015B NM	3527
890-724-4	SW01	Total/NA	Solid	8015B NM	3527
MB 880-3527/1-A	Method Blank	Total/NA	Solid	8015B NM	3527
LCS 880-3527/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3527
LCSD 880-3527/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3527

Prep Batch: 3527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-1	FS02	Total/NA	Solid	8015NM Prep	
890-724-2	FS03	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

GC Semi VOA (Continued)

Prep Batch: 3527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-3	FS04	Total/NA	Solid	8015NM Prep	
890-724-4	SW01	Total/NA	Solid	8015NM Prep	
MB 880-3527/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3527/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3527/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-1	FS02	Soluble	Solid	DI Leach	
890-724-2	FS03	Soluble	Solid	DI Leach	
890-724-3	FS04	Soluble	Solid	DI Leach	
MB 880-3466/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3466/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3466/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 3467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-4	SW01	Soluble	Solid	DI Leach	
MB 880-3467/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3467/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3467/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-724-4 MS	SW01	Soluble	Solid	DI Leach	
890-724-4 MSD	SW01	Soluble	Solid	DI Leach	

Analysis Batch: 3542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-4	SW01	Soluble	Solid	300.0	3467
MB 880-3467/1-A	Method Blank	Soluble	Solid	300.0	3467
LCS 880-3467/2-A	Lab Control Sample	Soluble	Solid	300.0	3467
LCSD 880-3467/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3467
890-724-4 MS	SW01	Soluble	Solid	300.0	3467
890-724-4 MSD	SW01	Soluble	Solid	300.0	3467

Analysis Batch: 3556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-724-1	FS02	Soluble	Solid	300.0	3466
890-724-2	FS03	Soluble	Solid	300.0	3466
890-724-3	FS04	Soluble	Solid	300.0	3466
MB 880-3466/1-A	Method Blank	Soluble	Solid	300.0	3466
LCS 880-3466/2-A	Lab Control Sample	Soluble	Solid	300.0	3466
LCSD 880-3466/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3466

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Client Sample ID: FS02

Lab Sample ID: 890-724-1
Matrix: Solid
Date Collected: 05/20/21 09:25
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/26/21 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 13:10	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 17:46	AJ	XEN MID
Soluble	Leach	DI Leach			3466	05/25/21 11:52	SC	XEN MID
Soluble	Analysis	300.0		1	3556	05/26/21 21:58	WP	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-724-2
Matrix: Solid
Date Collected: 05/20/21 13:39
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/26/21 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 13:30	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 18:29	AJ	XEN MID
Soluble	Leach	DI Leach			3466	05/25/21 11:52	SC	XEN MID
Soluble	Analysis	300.0		1	3556	05/26/21 22:03	WP	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-724-3
Matrix: Solid
Date Collected: 05/20/21 13:41
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 04:10	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 18:50	AJ	XEN MID
Soluble	Leach	DI Leach			3466	05/25/21 11:52	SC	XEN MID
Soluble	Analysis	300.0		1	3556	05/26/21 22:08	WP	XEN MID

Client Sample ID: SW01

Lab Sample ID: 890-724-4
Matrix: Solid
Date Collected: 05/20/21 13:45
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 04:30	KL	XEN MID
Total/NA	Prep	8015NM Prep			3527	05/26/21 10:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3504	05/26/21 19:12	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 03:52	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-724-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-724-1	FS02	Solid	05/20/21 09:25	05/24/21 16:32	- 1.5
890-724-2	FS03	Solid	05/20/21 13:39	05/24/21 16:32	- 2
890-724-3	FS04	Solid	05/20/21 13:41	05/24/21 16:32	- 2
890-724-4	SW01	Solid	05/20/21 13:45	05/24/21 16:32	0 - 2

Page 125 of 270

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

5/28/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, dan.moir@wsp.com	

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.0 / 3.8	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
FS02	s	5/20/2021	9:24	1.5'	1	x	x	x	Composite
FS03	s	5/20/2021	13:39	2'	1	x	x	x	Composite
FS04	s	5/20/2021	13:41	2'	1	x	x	x	Composite
SW01	s	5/20/2021	13:45	0-2'	1	x	x	x	Composite

890-724 Chain of Custody

ANALYSIS REQUEST

Work Order Notes

AFE: PA.2020.02621.EXP.01
API: 30-015-37588

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

Page 20 of 22

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		5.24.21 1632			
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-724-1
SDG Number: TE012921047

Login Number: 724
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: 890-724-1
SDG Number: TE012921047

Login Number: 724
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/26/21 11:23 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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-725-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/27/2021 6:11:07 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: ADU CTB

Laboratory Job ID: 890-725-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-725-1
Project/Site: ADU CTB SDG: TE012921047

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: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Job ID: 890-725-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-725-1

Receipt
The samples were received on 5/24/2021 4:32 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 3.8°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS24 (890-725-1), FS25 (890-725-2), FS26 (890-725-3), FS27 (890-725-4), FS28 (890-725-5), FS29 (890-725-6), FS30 (890-725-7), FS31 (890-725-8), SW02 (890-725-9), SW03 (890-725-10), SW04 (890-725-11), SW05 (890-725-12) and SW06 (890-725-13).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-3531 and analytical batch 880-3532 were outside control limits: Benzene. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: SW02 (890-725-9) and SW03 (890-725-10). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW03 (890-725-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS24 (890-725-1), FS25 (890-725-2), FS26 (890-725-3), FS27 (890-725-4), FS28 (890-725-5), FS29 (890-725-6) and FS31 (890-725-8). 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: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS24

Lab Sample ID: 890-725-1
Matrix: Solid
Date Collected: 05/24/21 13:20
Date Received: 05/24/21 16:32
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00623**		0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:51	1
Toluene	**0.00229**		0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 04:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 04:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 04:51	1
Total BTEX	**0.00852**		0.00398		mg/Kg		05/26/21 09:40	05/27/21 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*05/26/21 09:40*	*05/27/21 04:51*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 09:40*	*05/27/21 04:51*	*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		05/26/21 14:55	05/27/21 01:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 01:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 01:13	1
Total TPH	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*05/26/21 14:55*	*05/27/21 01:13*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/26/21 14:55*	*05/27/21 01:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.1**		4.99		mg/Kg			05/27/21 04:06	1

Client Sample ID: FS25

Lab Sample ID: 890-725-2
Matrix: Solid
Date Collected: 05/24/21 13:22
Date Received: 05/24/21 16:32
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:11	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:11	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:11	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/26/21 09:40	05/27/21 05:11	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:11	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/26/21 09:40	05/27/21 05:11	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/26/21 09:40	05/27/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 09:40*	*05/27/21 05:11*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*05/26/21 09:40*	*05/27/21 05:11*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS25

Lab Sample ID: 890-725-2
Matrix: Solid
Date Collected: 05/24/21 13:22
Date Received: 05/24/21 16:32
Sample Depth: - 4.5

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		05/26/21 14:55	05/27/21 01:34	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 01:34	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 01:34	1
Total TPH	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*05/26/21 14:55*	*05/27/21 01:34*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/26/21 14:55*	*05/27/21 01:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**201**		4.96		mg/Kg			05/27/21 04:11	1

Client Sample ID: FS26

Lab Sample ID: 890-725-3
Matrix: Solid
Date Collected: 05/24/21 13:26
Date Received: 05/24/21 16:32
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		05/26/21 09:40	05/27/21 05:32	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:32	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:32	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/26/21 09:40	05/27/21 05:32	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:32	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/26/21 09:40	05/27/21 05:32	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/26/21 09:40	05/27/21 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/26/21 09:40*	*05/27/21 05:32*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*05/26/21 09:40*	*05/27/21 05:32*	*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		05/26/21 14:55	05/27/21 01:54	1
Diesel Range Organics (Over C10-C28)	**67.0**		49.9		mg/Kg		05/26/21 14:55	05/27/21 01:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 01:54	1
Total TPH	**67.0**		49.9		mg/Kg		05/26/21 14:55	05/27/21 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*05/26/21 14:55*	*05/27/21 01:54*	*1*
o-Terphenyl	*87*		*70 - 130*	*05/26/21 14:55*	*05/27/21 01:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.4**		4.96		mg/Kg			05/27/21 04:16	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS27

Lab Sample ID: 890-725-4
Matrix: Solid
Date Collected: 05/24/21 13:28
Date Received: 05/24/21 16:32
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00286**		0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:52	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/26/21 09:40	05/27/21 05:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 05:52	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/26/21 09:40	05/27/21 05:52	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/26/21 09:40	05/27/21 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*05/26/21 09:40*	*05/27/21 05:52*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*05/26/21 09:40*	*05/27/21 05:52*	*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		05/26/21 14:55	05/27/21 02:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 02:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 02:15	1
Total TPH	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/26/21 14:55*	*05/27/21 02:15*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/26/21 14:55*	*05/27/21 02:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.4**		4.99		mg/Kg			05/27/21 04:21	1

Client Sample ID: FS28

Lab Sample ID: 890-725-5
Matrix: Solid
Date Collected: 05/24/21 13:30
Date Received: 05/24/21 16:32
Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00449**		0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 06:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 06:13	1
Total BTEX	**0.00449**		0.00398		mg/Kg		05/26/21 09:40	05/27/21 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/26/21 09:40*	*05/27/21 06:13*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/26/21 09:40*	*05/27/21 06:13*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS28

Lab Sample ID: 890-725-5
Matrix: Solid
Date Collected: 05/24/21 13:30
Date Received: 05/24/21 16:32
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		05/26/21 14:55	05/27/21 02:36	1
Diesel Range Organics (Over C10-C28)	**291**		49.9		mg/Kg		05/26/21 14:55	05/27/21 02:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 02:36	1
Total TPH	**291**		49.9		mg/Kg		05/26/21 14:55	05/27/21 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*05/26/21 14:55*	*05/27/21 02:36*	*1*
o-Terphenyl	*104*		*70 - 130*	*05/26/21 14:55*	*05/27/21 02:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46.6**		5.05		mg/Kg			05/27/21 04:36	1

Client Sample ID: FS29

Lab Sample ID: 890-725-6
Matrix: Solid
Date Collected: 05/24/21 13:34
Date Received: 05/24/21 16:32
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		05/26/21 09:40	05/27/21 06:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/27/21 06:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/27/21 06:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/27/21 06:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/27/21 06:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/27/21 06:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/27/21 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 09:40*	*05/27/21 06:33*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*05/26/21 09:40*	*05/27/21 06:33*	*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		05/26/21 14:55	05/27/21 02:57	1
Diesel Range Organics (Over C10-C28)	**586**		50.0		mg/Kg		05/26/21 14:55	05/27/21 02:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 02:57	1
Total TPH	**586**		50.0		mg/Kg		05/26/21 14:55	05/27/21 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*05/26/21 14:55*	*05/27/21 02:57*	*1*
o-Terphenyl	*97*		*70 - 130*	*05/26/21 14:55*	*05/27/21 02:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.6**		5.03		mg/Kg			05/27/21 04:40	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS30

Lab Sample ID: 890-725-7
Matrix: Solid
Date Collected: 05/24/21 13:36
Date Received: 05/24/21 16:32
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		05/26/21 09:40	05/27/21 06:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 06:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 09:40	05/27/21 06:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 06:54	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 09:40	05/27/21 06:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*05/26/21 09:40*	*05/27/21 06:54*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/26/21 09:40*	*05/27/21 06:54*	*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	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 03:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 03:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 03:18	1
Total TPH	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*05/26/21 14:55*	*05/27/21 03:18*	*1*
o-Terphenyl	*107*		*70 - 130*	*05/26/21 14:55*	*05/27/21 03:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.9**		5.02		mg/Kg			05/27/21 04:45	1

Client Sample ID: FS31

Lab Sample ID: 890-725-8
Matrix: Solid
Date Collected: 05/24/21 13:38
Date Received: 05/24/21 16:32
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		05/26/21 09:40	05/27/21 07:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 07:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 07:15	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/26/21 09:40	05/27/21 07:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/26/21 09:40	05/27/21 07:15	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/26/21 09:40	05/27/21 07:15	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/26/21 09:40	05/27/21 07:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/26/21 09:40*	*05/27/21 07:15*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/26/21 09:40*	*05/27/21 07:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS31

Lab Sample ID: 890-725-8
Matrix: Solid
Date Collected: 05/24/21 13:38
Date Received: 05/24/21 16:32
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	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 03:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 03:59	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 03:59	1
Total TPH	<49.8	U	49.8		mg/Kg		05/26/21 14:55	05/27/21 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*05/26/21 14:55*	*05/27/21 03:59*	*1*
o-Terphenyl	*105*		*70 - 130*	*05/26/21 14:55*	*05/27/21 03:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**43.5**		5.00		mg/Kg			05/27/21 04:50	1

Client Sample ID: SW02

Lab Sample ID: 890-725-9
Matrix: Solid
Date Collected: 05/24/21 13:49
Date Received: 05/24/21 16:32
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202		mg/Kg		05/26/21 11:38	05/26/21 15:51	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 15:51	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 15:51	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 15:51	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 15:51	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 15:51	1
Total BTEX	<0.00403	U F2	0.00403		mg/Kg		05/26/21 11:38	05/26/21 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*05/26/21 11:38*	*05/26/21 15:51*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/26/21 11:38*	*05/26/21 15:51*	*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		05/26/21 14:55	05/27/21 04:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 04:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 04:20	1
Total TPH	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 04:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*05/26/21 14:55*	*05/27/21 04:20*	*1*
o-Terphenyl	*83*		*70 - 130*	*05/26/21 14:55*	*05/27/21 04:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**447**		4.98		mg/Kg			05/27/21 04:55	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: SW03

Lab Sample ID: 890-725-10
Matrix: Solid
Date Collected: 05/24/21 13:51
Date Received: 05/24/21 16:32
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		05/26/21 11:38	05/26/21 16:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 16:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 16:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 16:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 16:11	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 16:11	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*05/26/21 11:38*	*05/26/21 16:11*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/26/21 11:38*	*05/26/21 16:11*	*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		05/26/21 14:55	05/27/21 04:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 04:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 04:41	1
Total TPH	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*05/26/21 14:55*	*05/27/21 04:41*	*1*
o-Terphenyl	*91*		*70 - 130*	*05/26/21 14:55*	*05/27/21 04:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**367**		4.95		mg/Kg			05/27/21 05:00	1

Client Sample ID: SW04

Lab Sample ID: 890-725-11
Matrix: Solid
Date Collected: 05/24/21 13:55
Date Received: 05/24/21 16:32
Sample Depth: 0 - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 16:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 16:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 16:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 16:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 16:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 16:32	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*05/26/21 11:38*	*05/26/21 16:32*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/26/21 11:38*	*05/26/21 16:32*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: SW04

Lab Sample ID: 890-725-11
Matrix: Solid
Date Collected: 05/24/21 13:55
Date Received: 05/24/21 16:32
Sample Depth: 0 - 4.5

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		05/26/21 14:55	05/27/21 05:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 05:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 05:02	1
Total TPH	<49.9	U	49.9		mg/Kg		05/26/21 14:55	05/27/21 05:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/26/21 14:55*	*05/27/21 05:02*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/26/21 14:55*	*05/27/21 05:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**109**		5.01		mg/Kg			05/27/21 05:15	1

Client Sample ID: SW05

Lab Sample ID: 890-725-12
Matrix: Solid
Date Collected: 05/24/21 13:57
Date Received: 05/24/21 16:32
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		05/26/21 11:38	05/26/21 16:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 16:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 16:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 16:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 16:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 16:52	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/26/21 11:38*	*05/26/21 16:52*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/26/21 11:38*	*05/26/21 16:52*	*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		05/26/21 14:55	05/27/21 05:23	1
Diesel Range Organics (Over C10-C28)	**101**		50.0		mg/Kg		05/26/21 14:55	05/27/21 05:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 05:23	1
Total TPH	**101**		50.0		mg/Kg		05/26/21 14:55	05/27/21 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*05/26/21 14:55*	*05/27/21 05:23*	*1*
o-Terphenyl	*89*		*70 - 130*	*05/26/21 14:55*	*05/27/21 05:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.9**		5.04		mg/Kg			05/27/21 05:20	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: SW06

Date Collected: 05/24/21 13:59
Date Received: 05/24/21 16:32
Sample Depth: 0 - 4

Lab Sample ID: 890-725-13

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		05/26/21 11:38	05/26/21 17:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 17:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 17:13	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 17:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 17:13	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 17:13	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*05/26/21 11:38*	*05/26/21 17:13*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/26/21 11:38*	*05/26/21 17:13*	*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		05/26/21 14:55	05/27/21 05:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 05:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 05:44	1
Total TPH	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/27/21 05:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*05/26/21 14:55*	*05/27/21 05:44*	*1*
o-Terphenyl	*88*		*70 - 130*	*05/26/21 14:55*	*05/27/21 05:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.9**		5.03		mg/Kg			05/27/21 05:34	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

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)
890-725-1	FS24	105	95
890-725-2	FS25	95	110
890-725-3	FS26	100	108
890-725-4	FS27	122	124
890-725-5	FS28	108	90
890-725-6	FS29	95	112
890-725-7	FS30	93	103
890-725-8	FS31	107	132 S1+
890-725-9	SW02	120	94
890-725-9 MS	SW02	99	88
890-725-9 MSD	SW02	120	84
890-725-10	SW03	133 S1+	86
890-725-11	SW04	120	103
890-725-12	SW05	113	103
890-725-13	SW06	116	100
LCS 880-3517/1-A	Lab Control Sample	81	116
LCS 880-3531/1-A	Lab Control Sample	105	98
LCSD 880-3517/2-A	Lab Control Sample Dup	84	117
LCSD 880-3531/2-A	Lab Control Sample Dup	107	99
MB 880-3414/5-A	Method Blank	109	114
MB 880-3517/5-A	Method Blank	98	87
MB 880-3531/5-A	Method Blank	107	95

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)
890-725-1	FS24	102	92
890-725-2	FS25	101	90
890-725-3	FS26	99	87
890-725-4	FS27	96	85
890-725-5	FS28	123	104
890-725-6	FS29	121	97
890-725-7	FS30	125	107
890-725-8	FS31	118	105
890-725-9	SW02	100	83
890-725-10	SW03	104	91
890-725-11	SW04	105	92
890-725-12	SW05	102	89
890-725-13	SW06	99	88
LCS 880-3539/2-A	Lab Control Sample	106	87
LCSD 880-3539/3-A	Lab Control Sample Dup	96	78
MB 880-3539/1-A	Method Blank	93	86

Surrogate Legend

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3414/5-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3414

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 08:45	05/26/21 11:39	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 08:45	05/26/21 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*05/26/21 08:45*	*05/26/21 11:39*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*05/26/21 08:45*	*05/26/21 11:39*	*1*

Lab Sample ID: MB 880-3517/5-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/26/21 23:22	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 09:40	05/26/21 23:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/26/21 09:40*	*05/26/21 23:22*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/26/21 09:40*	*05/26/21 23:22*	*1*

Lab Sample ID: LCS 880-3517/1-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1039		mg/Kg		104	70 - 130		
Toluene			0.100	0.09244		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.08359		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1660		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08061		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

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

Lab Sample ID: LCSD 880-3517/2-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1097		mg/Kg		110	70 - 130	5	35
Toluene			0.100	0.09767		mg/Kg		98	70 - 130	6	35
Ethylbenzene			0.100	0.08869		mg/Kg		89	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	4	35
o-Xylene			0.100	0.08510		mg/Kg		85	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-3531/5-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/26/21 11:38*	*05/26/21 15:22*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 11:38*	*05/26/21 15:22*	*1*

Lab Sample ID: LCS 880-3531/1-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3531

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.1036		mg/Kg		104	70 - 130
Toluene			0.100	0.1206		mg/Kg		121	70 - 130
Ethylbenzene			0.100	0.1218		mg/Kg		122	70 - 130
m-Xylene & p-Xylene			0.200	0.2488		mg/Kg		124	70 - 130
o-Xylene			0.100	0.1228		mg/Kg		123	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-3531/2-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1049		mg/Kg		105	70 - 130	1	35

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

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

Lab Sample ID: LCSD 880-3531/2-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.1170		mg/Kg		117	70 - 130	3	35
Ethylbenzene			0.100	0.1186		mg/Kg		119	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2425		mg/Kg		121	70 - 130	3	35
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-725-9 MS
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 3531

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U F1	0.100	0.07269		mg/Kg		73	70 - 130
Toluene	<0.00202	U	0.100	0.09606		mg/Kg		96	70 - 130
Ethylbenzene	<0.00202	U	0.100	0.09611		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2022		mg/Kg		101	70 - 130
o-Xylene	<0.00202	U	0.100	0.09671		mg/Kg		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 890-725-9 MSD
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: SW02
Prep Type: Total/NA
Prep Batch: 3531

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0996	0.05210	F1	mg/Kg		52	70 - 130	33	35
Toluene	<0.00202	U	0.0996	0.07436		mg/Kg		75	70 - 130	25	35
Ethylbenzene	<0.00202	U	0.0996	0.07871		mg/Kg		79	70 - 130	20	35
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1682		mg/Kg		84	70 - 130	18	35
o-Xylene	<0.00202	U	0.0996	0.08532		mg/Kg		86	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

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

Lab Sample ID: MB 880-3539/1-A
Matrix: Solid
Analysis Batch: 3502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3539

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		05/26/21 14:55	05/26/21 22:25	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

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

Lab Sample ID: MB 880-3539/1-A
Matrix: Solid
Analysis Batch: 3502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3539

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		05/26/21 14:55	05/26/21 22:25	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/26/21 22:25	1
Total TPH	<50.0	U	50.0		mg/Kg		05/26/21 14:55	05/26/21 22:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/26/21 14:55*	*05/26/21 22:25*	*1*
o-Terphenyl	*86*		*70 - 130*	*05/26/21 14:55*	*05/26/21 22:25*	*1*

Lab Sample ID: LCS 880-3539/2-A
Matrix: Solid
Analysis Batch: 3502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3539

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	969.2		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1108		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: LCSD 880-3539/3-A
Matrix: Solid
Analysis Batch: 3502

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3539

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	872.1		mg/Kg		87	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	996.4		mg/Kg		100	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3467/1-A
Matrix: Solid
Analysis Batch: 3542

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			05/27/21 03:37	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3467/2-A
Matrix: Solid
Analysis Batch: 3542

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 880-3467/3-A
Matrix: Solid
Analysis Batch: 3542

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	257.6		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-725-10 MS
Matrix: Solid
Analysis Batch: 3542

Client Sample ID: SW03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	367		248	633.2		mg/Kg		108	90 - 110		

Lab Sample ID: 890-725-10 MSD
Matrix: Solid
Analysis Batch: 3542

Client Sample ID: SW03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	367		248	633.0		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

GC VOA

Prep Batch: 3414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3414/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 3497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-1	FS24	Total/NA	Solid	8021B	3517
890-725-2	FS25	Total/NA	Solid	8021B	3517
890-725-3	FS26	Total/NA	Solid	8021B	3517
890-725-4	FS27	Total/NA	Solid	8021B	3517
890-725-5	FS28	Total/NA	Solid	8021B	3517
890-725-6	FS29	Total/NA	Solid	8021B	3517
890-725-7	FS30	Total/NA	Solid	8021B	3517
890-725-8	FS31	Total/NA	Solid	8021B	3517
MB 880-3414/5-A	Method Blank	Total/NA	Solid	8021B	3414
MB 880-3517/5-A	Method Blank	Total/NA	Solid	8021B	3517
LCS 880-3517/1-A	Lab Control Sample	Total/NA	Solid	8021B	3517
LCSD 880-3517/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3517

Prep Batch: 3517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-1	FS24	Total/NA	Solid	5035	
890-725-2	FS25	Total/NA	Solid	5035	
890-725-3	FS26	Total/NA	Solid	5035	
890-725-4	FS27	Total/NA	Solid	5035	
890-725-5	FS28	Total/NA	Solid	5035	
890-725-6	FS29	Total/NA	Solid	5035	
890-725-7	FS30	Total/NA	Solid	5035	
890-725-8	FS31	Total/NA	Solid	5035	
MB 880-3517/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3517/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3517/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 3531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-9	SW02	Total/NA	Solid	5035	
890-725-10	SW03	Total/NA	Solid	5035	
890-725-11	SW04	Total/NA	Solid	5035	
890-725-12	SW05	Total/NA	Solid	5035	
890-725-13	SW06	Total/NA	Solid	5035	
MB 880-3531/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3531/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3531/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-725-9 MS	SW02	Total/NA	Solid	5035	
890-725-9 MSD	SW02	Total/NA	Solid	5035	

Analysis Batch: 3532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-9	SW02	Total/NA	Solid	8021B	3531
890-725-10	SW03	Total/NA	Solid	8021B	3531
890-725-11	SW04	Total/NA	Solid	8021B	3531
890-725-12	SW05	Total/NA	Solid	8021B	3531
890-725-13	SW06	Total/NA	Solid	8021B	3531

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

GC VOA (Continued)

Analysis Batch: 3532 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3531/5-A	Method Blank	Total/NA	Solid	8021B	3531
LCS 880-3531/1-A	Lab Control Sample	Total/NA	Solid	8021B	3531
LCSD 880-3531/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3531
890-725-9 MS	SW02	Total/NA	Solid	8021B	3531
890-725-9 MSD	SW02	Total/NA	Solid	8021B	3531

GC Semi VOA

Analysis Batch: 3502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-1	FS24	Total/NA	Solid	8015B NM	3539
890-725-2	FS25	Total/NA	Solid	8015B NM	3539
890-725-3	FS26	Total/NA	Solid	8015B NM	3539
890-725-4	FS27	Total/NA	Solid	8015B NM	3539
890-725-5	FS28	Total/NA	Solid	8015B NM	3539
890-725-6	FS29	Total/NA	Solid	8015B NM	3539
890-725-7	FS30	Total/NA	Solid	8015B NM	3539
890-725-8	FS31	Total/NA	Solid	8015B NM	3539
890-725-9	SW02	Total/NA	Solid	8015B NM	3539
890-725-10	SW03	Total/NA	Solid	8015B NM	3539
890-725-11	SW04	Total/NA	Solid	8015B NM	3539
890-725-12	SW05	Total/NA	Solid	8015B NM	3539
890-725-13	SW06	Total/NA	Solid	8015B NM	3539
MB 880-3539/1-A	Method Blank	Total/NA	Solid	8015B NM	3539
LCS 880-3539/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3539
LCSD 880-3539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3539

Prep Batch: 3539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-1	FS24	Total/NA	Solid	8015NM Prep	
890-725-2	FS25	Total/NA	Solid	8015NM Prep	
890-725-3	FS26	Total/NA	Solid	8015NM Prep	
890-725-4	FS27	Total/NA	Solid	8015NM Prep	
890-725-5	FS28	Total/NA	Solid	8015NM Prep	
890-725-6	FS29	Total/NA	Solid	8015NM Prep	
890-725-7	FS30	Total/NA	Solid	8015NM Prep	
890-725-8	FS31	Total/NA	Solid	8015NM Prep	
890-725-9	SW02	Total/NA	Solid	8015NM Prep	
890-725-10	SW03	Total/NA	Solid	8015NM Prep	
890-725-11	SW04	Total/NA	Solid	8015NM Prep	
890-725-12	SW05	Total/NA	Solid	8015NM Prep	
890-725-13	SW06	Total/NA	Solid	8015NM Prep	
MB 880-3539/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3539/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-1	FS24	Soluble	Solid	DI Leach	
890-725-2	FS25	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

HPLC/IC (Continued)

Leach Batch: 3467 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-3	FS26	Soluble	Solid	DI Leach	
890-725-4	FS27	Soluble	Solid	DI Leach	
890-725-5	FS28	Soluble	Solid	DI Leach	
890-725-6	FS29	Soluble	Solid	DI Leach	
890-725-7	FS30	Soluble	Solid	DI Leach	
890-725-8	FS31	Soluble	Solid	DI Leach	
890-725-9	SW02	Soluble	Solid	DI Leach	
890-725-10	SW03	Soluble	Solid	DI Leach	
890-725-11	SW04	Soluble	Solid	DI Leach	
890-725-12	SW05	Soluble	Solid	DI Leach	
890-725-13	SW06	Soluble	Solid	DI Leach	
MB 880-3467/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3467/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3467/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-725-10 MS	SW03	Soluble	Solid	DI Leach	
890-725-10 MSD	SW03	Soluble	Solid	DI Leach	

Analysis Batch: 3542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-725-1	FS24	Soluble	Solid	300.0	3467
890-725-2	FS25	Soluble	Solid	300.0	3467
890-725-3	FS26	Soluble	Solid	300.0	3467
890-725-4	FS27	Soluble	Solid	300.0	3467
890-725-5	FS28	Soluble	Solid	300.0	3467
890-725-6	FS29	Soluble	Solid	300.0	3467
890-725-7	FS30	Soluble	Solid	300.0	3467
890-725-8	FS31	Soluble	Solid	300.0	3467
890-725-9	SW02	Soluble	Solid	300.0	3467
890-725-10	SW03	Soluble	Solid	300.0	3467
890-725-11	SW04	Soluble	Solid	300.0	3467
890-725-12	SW05	Soluble	Solid	300.0	3467
890-725-13	SW06	Soluble	Solid	300.0	3467
MB 880-3467/1-A	Method Blank	Soluble	Solid	300.0	3467
LCS 880-3467/2-A	Lab Control Sample	Soluble	Solid	300.0	3467
LCSD 880-3467/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3467
890-725-10 MS	SW03	Soluble	Solid	300.0	3467
890-725-10 MSD	SW03	Soluble	Solid	300.0	3467

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS24
Date Collected: 05/24/21 13:20
Date Received: 05/24/21 16:32

Lab Sample ID: 890-725-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 04:51	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 01:13	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:06	CH	XEN MID

Client Sample ID: FS25
Date Collected: 05/24/21 13:22
Date Received: 05/24/21 16:32

Lab Sample ID: 890-725-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 05:11	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 01:34	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:11	CH	XEN MID

Client Sample ID: FS26
Date Collected: 05/24/21 13:26
Date Received: 05/24/21 16:32

Lab Sample ID: 890-725-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 05:32	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 01:54	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:16	CH	XEN MID

Client Sample ID: FS27
Date Collected: 05/24/21 13:28
Date Received: 05/24/21 16:32

Lab Sample ID: 890-725-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 05:52	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 02:15	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:21	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: FS28

Lab Sample ID: 890-725-5
Matrix: Solid
Date Collected: 05/24/21 13:30
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 06:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 02:36	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:36	CH	XEN MID

Client Sample ID: FS29

Lab Sample ID: 890-725-6
Matrix: Solid
Date Collected: 05/24/21 13:34
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 06:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 02:57	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:40	CH	XEN MID

Client Sample ID: FS30

Lab Sample ID: 890-725-7
Matrix: Solid
Date Collected: 05/24/21 13:36
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 06:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 03:18	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:45	CH	XEN MID

Client Sample ID: FS31

Lab Sample ID: 890-725-8
Matrix: Solid
Date Collected: 05/24/21 13:38
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3517	05/26/21 09:40	KL	XEN MID
Total/NA	Analysis	8021B		1	3497	05/27/21 07:15	KL	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 03:59	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:50	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: SW02

Lab Sample ID: 890-725-9
Matrix: Solid
Date Collected: 05/24/21 13:49
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 15:51	MR	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 04:20	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 04:55	CH	XEN MID

Client Sample ID: SW03

Lab Sample ID: 890-725-10
Matrix: Solid
Date Collected: 05/24/21 13:51
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 16:11	MR	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 04:41	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:00	CH	XEN MID

Client Sample ID: SW04

Lab Sample ID: 890-725-11
Matrix: Solid
Date Collected: 05/24/21 13:55
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 16:32	MR	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 05:02	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:15	CH	XEN MID

Client Sample ID: SW05

Lab Sample ID: 890-725-12
Matrix: Solid
Date Collected: 05/24/21 13:57
Date Received: 05/24/21 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 16:52	MR	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 05:23	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:20	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Client Sample ID: SW06
Date Collected: 05/24/21 13:59
Date Received: 05/24/21 16:32

Lab Sample ID: 890-725-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 17:13	MR	XEN MID
Total/NA	Prep	8015NM Prep			3539	05/26/21 14:55	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3502	05/27/21 05:44	AJ	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:34	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: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-725-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-725-1	FS24	Solid	05/24/21 13:20	05/24/21 16:32	- 4
890-725-2	FS25	Solid	05/24/21 13:22	05/24/21 16:32	- 4.5
890-725-3	FS26	Solid	05/24/21 13:26	05/24/21 16:32	- 4
890-725-4	FS27	Solid	05/24/21 13:28	05/24/21 16:32	- 4.5
890-725-5	FS28	Solid	05/24/21 13:30	05/24/21 16:32	- 4
890-725-6	FS29	Solid	05/24/21 13:34	05/24/21 16:32	- 4
890-725-7	FS30	Solid	05/24/21 13:36	05/24/21 16:32	- 4
890-725-8	FS31	Solid	05/24/21 13:38	05/24/21 16:32	- 4
890-725-9	SW02	Solid	05/24/21 13:49	05/24/21 16:32	0 - 2
890-725-10	SW03	Solid	05/24/21 13:51	05/24/21 16:32	0 - 2
890-725-11	SW04	Solid	05/24/21 13:55	05/24/21 16:32	0 - 4.5
890-725-12	SW05	Solid	05/24/21 13:57	05/24/21 16:32	0 - 4
890-725-13	SW06	Solid	05/24/21 13:59	05/24/21 16:32	0 - 4

Page 158 of 270

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 2

5/27/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, dan.moir@wsp.com	

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	✓
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	4.0/3.8	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

890-725 Chain of Custody

Work Order Notes

AFE: PA.2020.02621.EXP.01
API: 30-015-37588

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
FS24	s	5/24/2021	13:20	4'	1	x	x	x	Composite
FS25	s	5/24/2021	13:22	4.5'	1	x	x	x	Composite
FS26	s	5/24/2021	13:26	4'	1	x	x	x	Composite
FS27	s	5/24/2021	13:28	4.5'	1	x	x	x	Composite
FS28	s	5/24/2021	13:30	4'	1	x	x	x	Composite
FS29	s	5/24/2021	13:34	4'	1	x	x	x	Composite
FS30	s	5/24/2021	13:36	4'	1	x	x	x	Composite
FS31	s	5/24/2021	13:38	4'	1	x	x	x	Composite
SW02	s	5/24/2021	13:49	0-2'	1	x	x	x	Composite
SW03	s	5/24/2021	13:51	0-2'	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	W. Mather	Cruz Cuz	5-24-21 1637			
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Page 31 of 34

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 PM

Page 159 of 270

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

5/27/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, dan.moir@wsp.com	

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	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
SW04	s	5/24/2021	13:55	0-4.5'	1	x	x	x	Composite
SW05	s	5/24/2021	13:57	0-4'	1	x	x	x	Composite
SW06	s	5/24/2021	13:59	0-4'	1	x	x	x	Composite

ANALYSIS REQUEST

Work Order Notes

AFE: PA.2020.02621.EXP.01
API: 30-015-37588

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		5-24-21 1632	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 32 of 34

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-725-1
SDG Number: TE012921047

Login Number: 725
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: 890-725-1
SDG Number: TE012921047

Login Number: 725
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/26/21 11:24 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: 890-726-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/31/2021 12:59:31 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: ADU CTB

Laboratory Job ID: 890-726-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-726-1
Project/Site: ADU CTB SDG: TE012921047

Qualifiers

GC 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.

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: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Job ID: 890-726-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-726-1

Receipt
The samples were received on 5/24/2021 4:38 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 3.8°C

GC VOA
Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: FS05 (890-726-1), FS06 (890-726-2), FS07 (890-726-3), FS08 (890-726-4), FS09 (890-726-5), FS11 (890-726-7), FS12 (890-726-8), FS14 (890-726-10), FS15 (890-726-11), FS16 (890-726-12), FS17 (890-726-13), FS18 (890-726-14), FS19 (890-726-15) and (890-725-A-9-D). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS08 (890-726-4), FS18 (890-726-14) and FS19 (890-726-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-3530 recovered above the upper control limit for Toluene The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: FS20 (890-726-16), FS21 (890-726-17), FS22 (890-726-18), FS23 (890-726-19) and (CCV 880-3530/20).

Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: FS20 (890-726-16), FS21 (890-726-17) and FS23 (890-726-19). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS20 (890-726-16). 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: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS05

Lab Sample ID: 890-726-1
Matrix: Solid
Date Collected: 05/21/21 08:36
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 17:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 17:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 17:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 17:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 17:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 17:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*05/26/21 11:38*	*05/26/21 17:33*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/26/21 11:38*	*05/26/21 17:33*	*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		05/27/21 08:52	05/29/21 01:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 01:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 01:32	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 01:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*05/27/21 08:52*	*05/29/21 01:32*	*1*
o-Terphenyl	*79*		*70 - 130*	*05/27/21 08:52*	*05/29/21 01:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.9**		5.03		mg/Kg			05/27/21 05:39	1

Client Sample ID: FS06

Lab Sample ID: 890-726-2
Matrix: Solid
Date Collected: 05/21/21 08:44
Date Received: 05/24/21 16:38
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 17:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 17:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 17:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 17:53	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 17:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 17:53	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*05/26/21 11:38*	*05/26/21 17:53*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/26/21 11:38*	*05/26/21 17:53*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS06

Lab Sample ID: 890-726-2
Matrix: Solid
Date Collected: 05/21/21 08:44
Date Received: 05/24/21 16:38
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	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 02:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 02:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 02:58	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*05/27/21 08:52*	*05/29/21 02:58*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/27/21 08:52*	*05/29/21 02:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.2**		5.03		mg/Kg			05/27/21 05:44	1

Client Sample ID: FS07

Lab Sample ID: 890-726-3
Matrix: Solid
Date Collected: 05/21/21 08:49
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 18:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 18:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 18:14	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/26/21 11:38	05/26/21 18:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 18:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/26/21 11:38	05/26/21 18:14	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/26/21 11:38	05/26/21 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*05/26/21 11:38*	*05/26/21 18:14*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/26/21 11:38*	*05/26/21 18:14*	*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		05/27/21 08:52	05/29/21 03:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 03:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 03:19	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*05/27/21 08:52*	*05/29/21 03:19*	*1*
o-Terphenyl	*77*		*70 - 130*	*05/27/21 08:52*	*05/29/21 03:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.37**		4.97		mg/Kg			05/27/21 05:49	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS08

Lab Sample ID: 890-726-4
Matrix: Solid
Date Collected: 05/21/21 08:51
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 18:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 18:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 18:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 18:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 18:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 18:34	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/26/21 11:38*	*05/26/21 18:34*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/26/21 11:38*	*05/26/21 18:34*	*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		05/27/21 08:52	05/29/21 03:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 03:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 03:40	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 03:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*05/27/21 08:52*	*05/29/21 03:40*	*1*
o-Terphenyl	*80*		*70 - 130*	*05/27/21 08:52*	*05/29/21 03:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.4**		4.95		mg/Kg			05/27/21 05:54	1

Client Sample ID: FS09

Lab Sample ID: 890-726-5
Matrix: Solid
Date Collected: 05/21/21 08:56
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 18:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 18:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 18:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 18:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 18:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 18:54	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*05/26/21 11:38*	*05/26/21 18:54*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/26/21 11:38*	*05/26/21 18:54*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS09

Lab Sample ID: 890-726-5
Matrix: Solid
Date Collected: 05/21/21 08:56
Date Received: 05/24/21 16:38
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	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 04:02	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 04:02	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 04:02	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/27/21 08:52*	*05/29/21 04:02*	*1*
o-Terphenyl	*82*		*70 - 130*	*05/27/21 08:52*	*05/29/21 04:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.5**		5.00		mg/Kg			05/27/21 05:59	1

Client Sample ID: FS10

Lab Sample ID: 890-726-6
Matrix: Solid
Date Collected: 05/21/21 08:58
Date Received: 05/24/21 16:38
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 20:45	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 20:45	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 20:45	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 20:45	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 20:45	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 20:45	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/26/21 11:38*	*05/26/21 20:45*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/26/21 11:38*	*05/26/21 20:45*	*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		05/27/21 08:52	05/29/21 04:23	1
Diesel Range Organics (Over C10-C28)	**109**		49.9		mg/Kg		05/27/21 08:52	05/29/21 04:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 04:23	1
Total TPH	**109**		49.9		mg/Kg		05/27/21 08:52	05/29/21 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*05/27/21 08:52*	*05/29/21 04:23*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/27/21 08:52*	*05/29/21 04:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1260**		5.01		mg/Kg			05/27/21 06:04	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS11

Lab Sample ID: 890-726-7
Matrix: Solid
Date Collected: 05/21/21 09:03
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 21:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 21:05	1
Ethylbenzene	**0.00276**		0.00202		mg/Kg		05/26/21 11:38	05/26/21 21:05	1
m-Xylene & p-Xylene	**0.00742**		0.00403		mg/Kg		05/26/21 11:38	05/26/21 21:05	1
o-Xylene	**0.00391**		0.00202		mg/Kg		05/26/21 11:38	05/26/21 21:05	1
Xylenes, Total	**0.0113**		0.00403		mg/Kg		05/26/21 11:38	05/26/21 21:05	1
Total BTEX	**0.0141**		0.00403		mg/Kg		05/26/21 11:38	05/26/21 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/26/21 11:38*	*05/26/21 21:05*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/26/21 11:38*	*05/26/21 21:05*	*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		05/27/21 08:52	05/29/21 04:44	1
Diesel Range Organics (Over C10-C28)	**175**		50.0		mg/Kg		05/27/21 08:52	05/29/21 04:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 04:44	1
Total TPH	**175**		50.0		mg/Kg		05/27/21 08:52	05/29/21 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*05/27/21 08:52*	*05/29/21 04:44*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/27/21 08:52*	*05/29/21 04:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**146**		4.97		mg/Kg			05/27/21 13:26	1

Client Sample ID: FS12

Lab Sample ID: 890-726-8
Matrix: Solid
Date Collected: 05/21/21 09:05
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 21:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 21:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 21:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 21:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 21:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 21:26	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/26/21 11:38	05/26/21 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*05/26/21 11:38*	*05/26/21 21:26*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/26/21 11:38*	*05/26/21 21:26*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS12

Lab Sample ID: 890-726-8
Matrix: Solid
Date Collected: 05/21/21 09:05
Date Received: 05/24/21 16:38
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		05/27/21 08:52	05/29/21 05:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 05:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 05:06	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/27/21 08:52*	*05/29/21 05:06*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/27/21 08:52*	*05/29/21 05:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.4**		4.98		mg/Kg			05/27/21 13:32	1

Client Sample ID: FS13

Lab Sample ID: 890-726-9
Matrix: Solid
Date Collected: 05/21/21 09:10
Date Received: 05/24/21 16:38
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/26/21 11:38	05/26/21 21:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/26/21 11:38	05/26/21 21:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/26/21 11:38	05/26/21 21:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/26/21 11:38	05/26/21 21:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/26/21 11:38	05/26/21 21:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/26/21 11:38	05/26/21 21:46	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/26/21 11:38	05/26/21 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*05/26/21 11:38*	*05/26/21 21:46*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/26/21 11:38*	*05/26/21 21:46*	*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	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 05:27	1
Diesel Range Organics (Over C10-C28)	**92.4**		50.0		mg/Kg		05/27/21 08:52	05/29/21 05:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 05:27	1
Total TPH	**92.4**		50.0		mg/Kg		05/27/21 08:52	05/29/21 05:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 08:52*	*05/29/21 05:27*	*1*
o-Terphenyl	*84*		*70 - 130*	*05/27/21 08:52*	*05/29/21 05:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38.2**		4.98		mg/Kg			05/27/21 13:52	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS14

Lab Sample ID: 890-726-10
Matrix: Solid
Date Collected: 05/21/21 09:13
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 22:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 22:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 22:07	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/26/21 11:38	05/26/21 22:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 22:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/26/21 11:38	05/26/21 22:07	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/26/21 11:38	05/26/21 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/26/21 11:38*	*05/26/21 22:07*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/26/21 11:38*	*05/26/21 22:07*	*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		05/27/21 08:52	05/29/21 06:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 06:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 06:10	1
Total TPH	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/27/21 08:52*	*05/29/21 06:10*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/27/21 08:52*	*05/29/21 06:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.9**		5.00		mg/Kg			05/27/21 13:58	1

Client Sample ID: FS15

Lab Sample ID: 890-726-11
Matrix: Solid
Date Collected: 05/21/21 09:16
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 22:27	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 22:27	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 22:27	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 22:27	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 22:27	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 22:27	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*05/26/21 11:38*	*05/26/21 22:27*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/26/21 11:38*	*05/26/21 22:27*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS15

Lab Sample ID: 890-726-11
Matrix: Solid
Date Collected: 05/21/21 09:16
Date Received: 05/24/21 16:38
Sample Depth: - 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	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 06:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 06:31	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 06:31	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 08:52	05/29/21 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*05/27/21 08:52*	*05/29/21 06:31*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/27/21 08:52*	*05/29/21 06:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.9**		4.99		mg/Kg			05/27/21 14:04	1

Client Sample ID: FS16

Lab Sample ID: 890-726-12
Matrix: Solid
Date Collected: 05/21/21 11:48
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 22:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 22:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 22:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 22:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 22:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 22:47	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*05/26/21 11:38*	*05/26/21 22:47*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/26/21 11:38*	*05/26/21 22:47*	*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		05/27/21 08:52	05/29/21 06:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 06:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 06:54	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 06:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*05/27/21 08:52*	*05/29/21 06:54*	*1*
o-Terphenyl	*81*		*70 - 130*	*05/27/21 08:52*	*05/29/21 06:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**234**		5.01		mg/Kg			05/27/21 14:11	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS17

Lab Sample ID: 890-726-13
Matrix: Solid
Date Collected: 05/21/21 12:01
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 23:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 23:08	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 23:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 23:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/26/21 11:38	05/26/21 23:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 23:08	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		05/26/21 11:38	05/26/21 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/26/21 11:38*	*05/26/21 23:08*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/26/21 11:38*	*05/26/21 23:08*	*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		05/27/21 08:52	05/29/21 07:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 07:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 07:15	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 07:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 08:52*	*05/29/21 07:15*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/27/21 08:52*	*05/29/21 07:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**228**		5.01		mg/Kg			05/27/21 14:17	1

Client Sample ID: FS18

Lab Sample ID: 890-726-14
Matrix: Solid
Date Collected: 05/21/21 12:04
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 23:28	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 23:28	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 23:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 23:28	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/26/21 11:38	05/26/21 23:28	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 23:28	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		05/26/21 11:38	05/26/21 23:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*05/26/21 11:38*	*05/26/21 23:28*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/26/21 11:38*	*05/26/21 23:28*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS18

Lab Sample ID: 890-726-14
Matrix: Solid
Date Collected: 05/21/21 12:04
Date Received: 05/24/21 16:38
Sample Depth: - 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		05/27/21 08:52	05/29/21 07:37	1
Diesel Range Organics (Over C10-C28)	**230**		49.9		mg/Kg		05/27/21 08:52	05/29/21 07:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 07:37	1
Total TPH	**230**		49.9		mg/Kg		05/27/21 08:52	05/29/21 07:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/27/21 08:52*	*05/29/21 07:37*	*1*
o-Terphenyl	*82*		*70 - 130*	*05/27/21 08:52*	*05/29/21 07:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**312**		5.01		mg/Kg			05/27/21 14:23	1

Client Sample ID: FS19

Lab Sample ID: 890-726-15
Matrix: Solid
Date Collected: 05/21/21 12:06
Date Received: 05/24/21 16:38
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		05/26/21 11:38	05/26/21 23:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 23:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 23:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 23:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 11:38	05/26/21 23:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 23:49	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 11:38	05/26/21 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/26/21 11:38*	*05/26/21 23:49*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 11:38*	*05/26/21 23:49*	*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		05/27/21 08:52	05/29/21 07:59	1
Diesel Range Organics (Over C10-C28)	**59.6**		50.0		mg/Kg		05/27/21 08:52	05/29/21 07:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 07:59	1
Total TPH	**59.6**		50.0		mg/Kg		05/27/21 08:52	05/29/21 07:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 08:52*	*05/29/21 07:59*	*1*
o-Terphenyl	*84*		*70 - 130*	*05/27/21 08:52*	*05/29/21 07:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**232**		4.99		mg/Kg			05/28/21 11:14	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS20

Lab Sample ID: 890-726-16
Matrix: Solid
Date Collected: 05/21/21 12:17
Date Received: 05/24/21 16:38
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		05/26/21 12:00	05/26/21 22:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 22:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 22:22	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/26/21 12:00	05/26/21 22:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 22:22	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/26/21 12:00	05/26/21 22:22	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/26/21 12:00	05/26/21 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*05/26/21 12:00*	*05/26/21 22:22*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/26/21 12:00*	*05/26/21 22:22*	*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		05/27/21 08:52	05/29/21 08:20	1
Diesel Range Organics (Over C10-C28)	**80.5**		50.0		mg/Kg		05/27/21 08:52	05/29/21 08:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 08:20	1
Total TPH	**80.5**		50.0		mg/Kg		05/27/21 08:52	05/29/21 08:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 08:52*	*05/29/21 08:20*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/27/21 08:52*	*05/29/21 08:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**142**		4.96		mg/Kg			05/28/21 11:29	1

Client Sample ID: FS21

Lab Sample ID: 890-726-17
Matrix: Solid
Date Collected: 05/21/21 12:25
Date Received: 05/24/21 16:38
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		05/26/21 12:00	05/26/21 22:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/26/21 12:00	05/26/21 22:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/26/21 12:00	05/26/21 22:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/26/21 12:00	05/26/21 22:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/26/21 12:00	05/26/21 22:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/26/21 12:00	05/26/21 22:47	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/26/21 12:00	05/26/21 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*05/26/21 12:00*	*05/26/21 22:47*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*05/26/21 12:00*	*05/26/21 22:47*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS21

Lab Sample ID: 890-726-17
Matrix: Solid
Date Collected: 05/21/21 12:25
Date Received: 05/24/21 16:38
Sample Depth: - 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		05/27/21 08:52	05/29/21 08:41	1
Diesel Range Organics (Over C10-C28)	**96.9**		49.9		mg/Kg		05/27/21 08:52	05/29/21 08:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 08:41	1
Total TPH	**96.9**		49.9		mg/Kg		05/27/21 08:52	05/29/21 08:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*05/27/21 08:52*	*05/29/21 08:41*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/27/21 08:52*	*05/29/21 08:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.3**		4.95		mg/Kg			05/28/21 11:34	1

Client Sample ID: FS22

Lab Sample ID: 890-726-18
Matrix: Solid
Date Collected: 05/21/21 12:31
Date Received: 05/24/21 16:38
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		05/26/21 12:00	05/26/21 23:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 23:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 23:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/26/21 12:00	05/26/21 23:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 23:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/26/21 12:00	05/26/21 23:12	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/26/21 12:00	05/26/21 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*05/26/21 12:00*	*05/26/21 23:12*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/26/21 12:00*	*05/26/21 23:12*	*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		05/27/21 08:52	05/29/21 09:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 09:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 09:03	1
Total TPH	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 09:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 08:52*	*05/29/21 09:03*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/27/21 08:52*	*05/29/21 09:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.4**		5.04		mg/Kg			05/28/21 11:39	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS23

Date Collected: 05/21/21 12:34
Date Received: 05/24/21 16:38
Sample Depth: - 2

Lab Sample ID: 890-726-19

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		05/26/21 12:00	05/26/21 23:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 23:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 23:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 12:00	05/26/21 23:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 23:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 12:00	05/26/21 23:36	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 12:00	05/26/21 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/26/21 12:00*	*05/26/21 23:36*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 12:00*	*05/26/21 23:36*	*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	**143**		49.9		mg/Kg		05/27/21 08:52	05/29/21 09:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 09:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 08:52	05/29/21 09:24	1
Total TPH	**143**		49.9		mg/Kg		05/27/21 08:52	05/29/21 09:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*05/27/21 08:52*	*05/29/21 09:24*	*1*
o-Terphenyl	*89*		*70 - 130*	*05/27/21 08:52*	*05/29/21 09:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**107**		5.02		mg/Kg			05/28/21 11:43	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

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)
890-726-1	FS05	130	90
890-726-2	FS06	129	82
890-726-3	FS07	119	91
890-726-4	FS08	132 S1+	92
890-726-5	FS09	118	86
890-726-6	FS10	113	102
890-726-7	FS11	100	98
890-726-8	FS12	122	100
890-726-9	FS13	116	100
890-726-10	FS14	98	96
890-726-11	FS15	120	85
890-726-12	FS16	129	89
890-726-13	FS17	102	90
890-726-14	FS18	59 S1-	85
890-726-15	FS19	132 S1+	95
890-726-16	FS20	136 S1+	91
890-726-17	FS21	91	70
890-726-18	FS22	105	97
890-726-19	FS23	98	95
LCS 880-3520/1-A	Lab Control Sample	108	98
LCS 880-3520/2-A	Lab Control Sample	103	95
LCS 880-3531/1-A	Lab Control Sample	105	98
LCSD 880-3531/2-A	Lab Control Sample Dup	107	99
MB 880-3520/5-A	Method Blank	70	82
MB 880-3531/5-A	Method Blank	107	95

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)
890-726-1	FS05	94	79
890-726-1 MS	FS05	91	71
890-726-1 MSD	FS05	93	74
890-726-2	FS06	94	81
890-726-3	FS07	91	77
890-726-4	FS08	91	80
890-726-5	FS09	95	82
890-726-6	FS10	92	81
890-726-7	FS11	98	85
890-726-8	FS12	93	81
890-726-9	FS13	96	84
890-726-10	FS14	93	81
890-726-11	FS15	92	81
890-726-12	FS16	91	81

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-726-1
Project/Site: ADU CTB SDG: TE012921047

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
890-726-13	FS17	96	85								
890-726-14	FS18	95	82								
890-726-15	FS19	96	84								
890-726-16	FS20	96	85								
890-726-17	FS21	100	85								
890-726-18	FS22	96	85								
890-726-19	FS23	99	89								
LCS 880-3559/2-A	Lab Control Sample	96	79								
LCSD 880-3559/3-A	Lab Control Sample Dup	96	83								
MB 880-3559/1-A	Method Blank	95	82								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3520/5-A
Matrix: Solid
Analysis Batch: 3530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3520

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 15:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 15:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 15:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 12:00	05/26/21 15:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 12:00	05/26/21 15:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 12:00	05/26/21 15:31	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 12:00	05/26/21 15:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*05/26/21 12:00*	*05/26/21 15:31*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/26/21 12:00*	*05/26/21 15:31*	*1*

Lab Sample ID: LCS 880-3520/1-A
Matrix: Solid
Analysis Batch: 3530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3520

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1159		mg/Kg		116	70 - 130		
Toluene			0.100	0.09439		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.1041		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.2101		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1016		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCS 880-3520/2-A
Matrix: Solid
Analysis Batch: 3530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3520

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1131		mg/Kg		113	70 - 130		
Toluene			0.100	0.09802		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.1016		mg/Kg		102	70 - 130		
m-Xylene & p-Xylene			0.200	0.2052		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-3531/5-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

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

Lab Sample ID: MB 880-3531/5-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 15:22	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 11:38	05/26/21 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/26/21 11:38*	*05/26/21 15:22*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/26/21 11:38*	*05/26/21 15:22*	*1*

Lab Sample ID: LCS 880-3531/1-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3531

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1036		mg/Kg		104	70 - 130		
Toluene			0.100	0.1206		mg/Kg		121	70 - 130		
Ethylbenzene			0.100	0.1218		mg/Kg		122	70 - 130		
m-Xylene & p-Xylene			0.200	0.2488		mg/Kg		124	70 - 130		
o-Xylene			0.100	0.1228		mg/Kg		123	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-3531/2-A
Matrix: Solid
Analysis Batch: 3532

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1049		mg/Kg		105	70 - 130	1	35
Toluene			0.100	0.1170		mg/Kg		117	70 - 130	3	35
Ethylbenzene			0.100	0.1186		mg/Kg		119	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2425		mg/Kg		121	70 - 130	3	35
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

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

Lab Sample ID: MB 880-3559/1-A
Matrix: Solid
Analysis Batch: 3614

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3559

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		05/27/21 08:52	05/29/21 00:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 00:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 00:28	1
Total TPH	<50.0	U	50.0		mg/Kg		05/27/21 08:52	05/29/21 00:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/27/21 08:52*	*05/29/21 00:28*	*1*
o-Terphenyl	*82*		*70 - 130*	*05/27/21 08:52*	*05/29/21 00:28*	*1*

Lab Sample ID: LCS 880-3559/2-A
Matrix: Solid
Analysis Batch: 3614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3559

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	781.4		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	865.3		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

Lab Sample ID: LCSD 880-3559/3-A
Matrix: Solid
Analysis Batch: 3614

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	776.6		mg/Kg		78	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	890.0		mg/Kg		89	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

Lab Sample ID: 890-726-1 MS
Matrix: Solid
Analysis Batch: 3614

Client Sample ID: FS05
Prep Type: Total/NA
Prep Batch: 3559

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	831.7		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	935.2		mg/Kg		92	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

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

Lab Sample ID: 890-726-1 MS
Matrix: Solid
Analysis Batch: 3614

Client Sample ID: FS05
Prep Type: Total/NA
Prep Batch: 3559

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	71		70 - 130

Lab Sample ID: 890-726-1 MSD
Matrix: Solid
Analysis Batch: 3614

Client Sample ID: FS05
Prep Type: Total/NA
Prep Batch: 3559

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	840.9		mg/Kg		84	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	977.7		mg/Kg		96	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	74		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3467/1-A
Matrix: Solid
Analysis Batch: 3542

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			05/27/21 03:37	1

Lab Sample ID: LCS 880-3467/2-A
Matrix: Solid
Analysis Batch: 3542

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 880-3467/3-A
Matrix: Solid
Analysis Batch: 3542

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	257.6		mg/Kg		103	90 - 110	0	20

Lab Sample ID: MB 880-3526/1-A
Matrix: Solid
Analysis Batch: 3569

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			05/27/21 11:19	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3526/2-A
Matrix: Solid
Analysis Batch: 3569

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	251.1		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-3526/3-A
Matrix: Solid
Analysis Batch: 3569

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	256.5		mg/Kg		103	90 - 110	2	20

Lab Sample ID: MB 880-3529/1-A
Matrix: Solid
Analysis Batch: 3607

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			05/28/21 10:59	1

Lab Sample ID: LCS 880-3529/2-A
Matrix: Solid
Analysis Batch: 3607

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	243.8		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-3529/3-A
Matrix: Solid
Analysis Batch: 3607

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	243.7		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-726-15 MS
Matrix: Solid
Analysis Batch: 3607

Client Sample ID: FS19
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	232		250	459.6		mg/Kg		91	90 - 110		

Lab Sample ID: 890-726-15 MSD
Matrix: Solid
Analysis Batch: 3607

Client Sample ID: FS19
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	232		250	459.7		mg/Kg		91	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

GC VOA

Prep Batch: 3520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-16	FS20	Total/NA	Solid	5035	
890-726-17	FS21	Total/NA	Solid	5035	
890-726-18	FS22	Total/NA	Solid	5035	
890-726-19	FS23	Total/NA	Solid	5035	
MB 880-3520/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3520/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 880-3520/2-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 3530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-16	FS20	Total/NA	Solid	8021B	3520
890-726-17	FS21	Total/NA	Solid	8021B	3520
890-726-18	FS22	Total/NA	Solid	8021B	3520
890-726-19	FS23	Total/NA	Solid	8021B	3520
MB 880-3520/5-A	Method Blank	Total/NA	Solid	8021B	3520
LCS 880-3520/1-A	Lab Control Sample	Total/NA	Solid	8021B	3520
LCS 880-3520/2-A	Lab Control Sample	Total/NA	Solid	8021B	3520

Prep Batch: 3531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-1	FS05	Total/NA	Solid	5035	
890-726-2	FS06	Total/NA	Solid	5035	
890-726-3	FS07	Total/NA	Solid	5035	
890-726-4	FS08	Total/NA	Solid	5035	
890-726-5	FS09	Total/NA	Solid	5035	
890-726-6	FS10	Total/NA	Solid	5035	
890-726-7	FS11	Total/NA	Solid	5035	
890-726-8	FS12	Total/NA	Solid	5035	
890-726-9	FS13	Total/NA	Solid	5035	
890-726-10	FS14	Total/NA	Solid	5035	
890-726-11	FS15	Total/NA	Solid	5035	
890-726-12	FS16	Total/NA	Solid	5035	
890-726-13	FS17	Total/NA	Solid	5035	
890-726-14	FS18	Total/NA	Solid	5035	
890-726-15	FS19	Total/NA	Solid	5035	
MB 880-3531/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3531/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3531/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-1	FS05	Total/NA	Solid	8021B	3531
890-726-2	FS06	Total/NA	Solid	8021B	3531
890-726-3	FS07	Total/NA	Solid	8021B	3531
890-726-4	FS08	Total/NA	Solid	8021B	3531
890-726-5	FS09	Total/NA	Solid	8021B	3531
890-726-6	FS10	Total/NA	Solid	8021B	3531
890-726-7	FS11	Total/NA	Solid	8021B	3531
890-726-8	FS12	Total/NA	Solid	8021B	3531
890-726-9	FS13	Total/NA	Solid	8021B	3531
890-726-10	FS14	Total/NA	Solid	8021B	3531

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

GC VOA (Continued)

Analysis Batch: 3532 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-11	FS15	Total/NA	Solid	8021B	3531
890-726-12	FS16	Total/NA	Solid	8021B	3531
890-726-13	FS17	Total/NA	Solid	8021B	3531
890-726-14	FS18	Total/NA	Solid	8021B	3531
890-726-15	FS19	Total/NA	Solid	8021B	3531
MB 880-3531/5-A	Method Blank	Total/NA	Solid	8021B	3531
LCS 880-3531/1-A	Lab Control Sample	Total/NA	Solid	8021B	3531
LCSD 880-3531/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3531

GC Semi VOA

Prep Batch: 3559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-1	FS05	Total/NA	Solid	8015NM Prep	
890-726-2	FS06	Total/NA	Solid	8015NM Prep	
890-726-3	FS07	Total/NA	Solid	8015NM Prep	
890-726-4	FS08	Total/NA	Solid	8015NM Prep	
890-726-5	FS09	Total/NA	Solid	8015NM Prep	
890-726-6	FS10	Total/NA	Solid	8015NM Prep	
890-726-7	FS11	Total/NA	Solid	8015NM Prep	
890-726-8	FS12	Total/NA	Solid	8015NM Prep	
890-726-9	FS13	Total/NA	Solid	8015NM Prep	
890-726-10	FS14	Total/NA	Solid	8015NM Prep	
890-726-11	FS15	Total/NA	Solid	8015NM Prep	
890-726-12	FS16	Total/NA	Solid	8015NM Prep	
890-726-13	FS17	Total/NA	Solid	8015NM Prep	
890-726-14	FS18	Total/NA	Solid	8015NM Prep	
890-726-15	FS19	Total/NA	Solid	8015NM Prep	
890-726-16	FS20	Total/NA	Solid	8015NM Prep	
890-726-17	FS21	Total/NA	Solid	8015NM Prep	
890-726-18	FS22	Total/NA	Solid	8015NM Prep	
890-726-19	FS23	Total/NA	Solid	8015NM Prep	
MB 880-3559/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3559/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3559/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-726-1 MS	FS05	Total/NA	Solid	8015NM Prep	
890-726-1 MSD	FS05	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-1	FS05	Total/NA	Solid	8015B NM	3559
890-726-2	FS06	Total/NA	Solid	8015B NM	3559
890-726-3	FS07	Total/NA	Solid	8015B NM	3559
890-726-4	FS08	Total/NA	Solid	8015B NM	3559
890-726-5	FS09	Total/NA	Solid	8015B NM	3559
890-726-6	FS10	Total/NA	Solid	8015B NM	3559
890-726-7	FS11	Total/NA	Solid	8015B NM	3559
890-726-8	FS12	Total/NA	Solid	8015B NM	3559
890-726-9	FS13	Total/NA	Solid	8015B NM	3559
890-726-10	FS14	Total/NA	Solid	8015B NM	3559
890-726-11	FS15	Total/NA	Solid	8015B NM	3559

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

GC Semi VOA (Continued)

Analysis Batch: 3614 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-12	FS16	Total/NA	Solid	8015B NM	3559
890-726-13	FS17	Total/NA	Solid	8015B NM	3559
890-726-14	FS18	Total/NA	Solid	8015B NM	3559
890-726-15	FS19	Total/NA	Solid	8015B NM	3559
890-726-16	FS20	Total/NA	Solid	8015B NM	3559
890-726-17	FS21	Total/NA	Solid	8015B NM	3559
890-726-18	FS22	Total/NA	Solid	8015B NM	3559
890-726-19	FS23	Total/NA	Solid	8015B NM	3559
MB 880-3559/1-A	Method Blank	Total/NA	Solid	8015B NM	3559
LCS 880-3559/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3559
LCSD 880-3559/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3559
890-726-1 MS	FS05	Total/NA	Solid	8015B NM	3559
890-726-1 MSD	FS05	Total/NA	Solid	8015B NM	3559

HPLC/IC

Leach Batch: 3467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-1	FS05	Soluble	Solid	DI Leach	
890-726-2	FS06	Soluble	Solid	DI Leach	
890-726-3	FS07	Soluble	Solid	DI Leach	
890-726-4	FS08	Soluble	Solid	DI Leach	
890-726-5	FS09	Soluble	Solid	DI Leach	
890-726-6	FS10	Soluble	Solid	DI Leach	
MB 880-3467/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3467/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3467/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 3526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-7	FS11	Soluble	Solid	DI Leach	
890-726-8	FS12	Soluble	Solid	DI Leach	
890-726-9	FS13	Soluble	Solid	DI Leach	
890-726-10	FS14	Soluble	Solid	DI Leach	
890-726-11	FS15	Soluble	Solid	DI Leach	
890-726-12	FS16	Soluble	Solid	DI Leach	
890-726-13	FS17	Soluble	Solid	DI Leach	
890-726-14	FS18	Soluble	Solid	DI Leach	
MB 880-3526/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3526/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3526/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 3529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-15	FS19	Soluble	Solid	DI Leach	
890-726-16	FS20	Soluble	Solid	DI Leach	
890-726-17	FS21	Soluble	Solid	DI Leach	
890-726-18	FS22	Soluble	Solid	DI Leach	
890-726-19	FS23	Soluble	Solid	DI Leach	
MB 880-3529/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3529/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

HPLC/IC (Continued)

Leach Batch: 3529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-3529/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-726-15 MS	FS19	Soluble	Solid	DI Leach	
890-726-15 MSD	FS19	Soluble	Solid	DI Leach	

Analysis Batch: 3542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-1	FS05	Soluble	Solid	300.0	3467
890-726-2	FS06	Soluble	Solid	300.0	3467
890-726-3	FS07	Soluble	Solid	300.0	3467
890-726-4	FS08	Soluble	Solid	300.0	3467
890-726-5	FS09	Soluble	Solid	300.0	3467
890-726-6	FS10	Soluble	Solid	300.0	3467
MB 880-3467/1-A	Method Blank	Soluble	Solid	300.0	3467
LCS 880-3467/2-A	Lab Control Sample	Soluble	Solid	300.0	3467
LCSD 880-3467/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3467

Analysis Batch: 3569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-7	FS11	Soluble	Solid	300.0	3526
890-726-8	FS12	Soluble	Solid	300.0	3526
890-726-9	FS13	Soluble	Solid	300.0	3526
890-726-10	FS14	Soluble	Solid	300.0	3526
890-726-11	FS15	Soluble	Solid	300.0	3526
890-726-12	FS16	Soluble	Solid	300.0	3526
890-726-13	FS17	Soluble	Solid	300.0	3526
890-726-14	FS18	Soluble	Solid	300.0	3526
MB 880-3526/1-A	Method Blank	Soluble	Solid	300.0	3526
LCS 880-3526/2-A	Lab Control Sample	Soluble	Solid	300.0	3526
LCSD 880-3526/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3526

Analysis Batch: 3607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-726-15	FS19	Soluble	Solid	300.0	3529
890-726-16	FS20	Soluble	Solid	300.0	3529
890-726-17	FS21	Soluble	Solid	300.0	3529
890-726-18	FS22	Soluble	Solid	300.0	3529
890-726-19	FS23	Soluble	Solid	300.0	3529
MB 880-3529/1-A	Method Blank	Soluble	Solid	300.0	3529
LCS 880-3529/2-A	Lab Control Sample	Soluble	Solid	300.0	3529
LCSD 880-3529/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3529
890-726-15 MS	FS19	Soluble	Solid	300.0	3529
890-726-15 MSD	FS19	Soluble	Solid	300.0	3529

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS05
Date Collected: 05/21/21 08:36
Date Received: 05/24/21 16:38

Lab Sample ID: 890-726-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 17:33	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 01:32	AM	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:39	CH	XEN MID

Client Sample ID: FS06
Date Collected: 05/21/21 08:44
Date Received: 05/24/21 16:38

Lab Sample ID: 890-726-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 17:53	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 02:58	AM	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:44	CH	XEN MID

Client Sample ID: FS07
Date Collected: 05/21/21 08:49
Date Received: 05/24/21 16:38

Lab Sample ID: 890-726-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 18:14	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 03:19	AM	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:49	CH	XEN MID

Client Sample ID: FS08
Date Collected: 05/21/21 08:51
Date Received: 05/24/21 16:38

Lab Sample ID: 890-726-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 18:34	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 03:40	AM	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:54	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS09

Lab Sample ID: 890-726-5
Matrix: Solid
Date Collected: 05/21/21 08:56
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 18:54	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 04:02	AM	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 05:59	CH	XEN MID

Client Sample ID: FS10

Lab Sample ID: 890-726-6
Matrix: Solid
Date Collected: 05/21/21 08:58
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 20:45	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 04:23	AM	XEN MID
Soluble	Leach	DI Leach			3467	05/25/21 11:56	CH	XEN MID
Soluble	Analysis	300.0		1	3542	05/27/21 06:04	CH	XEN MID

Client Sample ID: FS11

Lab Sample ID: 890-726-7
Matrix: Solid
Date Collected: 05/21/21 09:03
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 21:05	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 04:44	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 13:26	CH	XEN MID

Client Sample ID: FS12

Lab Sample ID: 890-726-8
Matrix: Solid
Date Collected: 05/21/21 09:05
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 21:26	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 05:06	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 13:32	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS13

Lab Sample ID: 890-726-9
Matrix: Solid
Date Collected: 05/21/21 09:10
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 21:46	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 05:27	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 13:52	CH	XEN MID

Client Sample ID: FS14

Lab Sample ID: 890-726-10
Matrix: Solid
Date Collected: 05/21/21 09:13
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 22:07	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 06:10	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 13:58	CH	XEN MID

Client Sample ID: FS15

Lab Sample ID: 890-726-11
Matrix: Solid
Date Collected: 05/21/21 09:16
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 22:27	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 06:31	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 14:04	CH	XEN MID

Client Sample ID: FS16

Lab Sample ID: 890-726-12
Matrix: Solid
Date Collected: 05/21/21 11:48
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 22:47	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 06:54	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 14:11	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS17

Lab Sample ID: 890-726-13
Matrix: Solid
Date Collected: 05/21/21 12:01
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 23:08	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 07:15	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 14:17	CH	XEN MID

Client Sample ID: FS18

Lab Sample ID: 890-726-14
Matrix: Solid
Date Collected: 05/21/21 12:04
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 23:28	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 07:37	AM	XEN MID
Soluble	Leach	DI Leach			3526	05/26/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	3569	05/27/21 14:23	CH	XEN MID

Client Sample ID: FS19

Lab Sample ID: 890-726-15
Matrix: Solid
Date Collected: 05/21/21 12:06
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3531	05/26/21 11:38	MR	XEN MID
Total/NA	Analysis	8021B		1	3532	05/26/21 23:49	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 07:59	AM	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		1	3607	05/28/21 11:14	SC	XEN MID

Client Sample ID: FS20

Lab Sample ID: 890-726-16
Matrix: Solid
Date Collected: 05/21/21 12:17
Date Received: 05/24/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3520	05/26/21 12:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3530	05/26/21 22:22	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 08:20	AM	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		1	3607	05/28/21 11:29	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Client Sample ID: FS21

Lab Sample ID: 890-726-17

Date Collected: 05/21/21 12:25
Date Received: 05/24/21 16:38

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3520	05/26/21 12:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3530	05/26/21 22:47	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 08:41	AM	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		1	3607	05/28/21 11:34	SC	XEN MID

Client Sample ID: FS22

Lab Sample ID: 890-726-18

Date Collected: 05/21/21 12:31
Date Received: 05/24/21 16:38

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3520	05/26/21 12:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3530	05/26/21 23:12	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 09:03	AM	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		1	3607	05/28/21 11:39	SC	XEN MID

Client Sample ID: FS23

Lab Sample ID: 890-726-19

Date Collected: 05/21/21 12:34
Date Received: 05/24/21 16:38

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3520	05/26/21 12:00	MR	XEN MID
Total/NA	Analysis	8021B		1	3530	05/26/21 23:36	MR	XEN MID
Total/NA	Prep	8015NM Prep			3559	05/27/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3614	05/29/21 09:24	AM	XEN MID
Soluble	Leach	DI Leach			3529	05/26/21 10:59	CH	XEN MID
Soluble	Analysis	300.0		1	3607	05/28/21 11:43	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: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-726-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-726-1	FS05	Solid	05/21/21 08:36	05/24/21 16:38	- 1
890-726-2	FS06	Solid	05/21/21 08:44	05/24/21 16:38	- 1
890-726-3	FS07	Solid	05/21/21 08:49	05/24/21 16:38	- 1
890-726-4	FS08	Solid	05/21/21 08:51	05/24/21 16:38	- 1
890-726-5	FS09	Solid	05/21/21 08:56	05/24/21 16:38	- 1
890-726-6	FS10	Solid	05/21/21 08:58	05/24/21 16:38	- 1
890-726-7	FS11	Solid	05/21/21 09:03	05/24/21 16:38	- 1
890-726-8	FS12	Solid	05/21/21 09:05	05/24/21 16:38	- 1
890-726-9	FS13	Solid	05/21/21 09:10	05/24/21 16:38	- 1
890-726-10	FS14	Solid	05/21/21 09:13	05/24/21 16:38	- 1
890-726-11	FS15	Solid	05/21/21 09:16	05/24/21 16:38	- 2
890-726-12	FS16	Solid	05/21/21 11:48	05/24/21 16:38	- 2
890-726-13	FS17	Solid	05/21/21 12:01	05/24/21 16:38	- 2
890-726-14	FS18	Solid	05/21/21 12:04	05/24/21 16:38	- 2
890-726-15	FS19	Solid	05/21/21 12:06	05/24/21 16:38	- 2
890-726-16	FS20	Solid	05/21/21 12:17	05/24/21 16:38	- 2
890-726-17	FS21	Solid	05/21/21 12:25	05/24/21 16:38	- 2
890-726-18	FS22	Solid	05/21/21 12:31	05/24/21 16:38	- 2
890-726-19	FS23	Solid	05/21/21 12:34	05/24/21 16:38	- 2

Page 198 of 270

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 2

5/31/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, dan.moir@wsp.com	

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.0/3.6	Thermometer ID	
Received Intact:	(Yes) No	CNM-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
FS05	s	5/21/2021	8:36	1'	1	x	x	x	Composite
FS06	s	5/21/2021	8:44	1'	1	x	x	x	Composite
FS07	s	5/21/2021	8:49	1'	1	x	x	x	Composite
FS08	s	5/21/2021	8:51	1'	1	x	x	x	Composite
FS09	s	5/21/2021	8:56	1'	1	x	x	x	Composite
FS10	s	5/21/2021	8:58	1'	1	x	x	x	Composite
FS11	s	5/21/2021	9:03	1'	1	x	x	x	Composite
FS12	s	5/21/2021	9:05	1'	1	x	x	x	Composite
FS13	s	5/21/2021	9:10	1'	1	x	x	x	Composite
FS14	s	5/21/2021	9:13	1'	1	x	x	x	Composite

890-726 Chain of Custody

Work Order Notes

AFE: PA.2020.02621.EXP.01
API: 30-015-37588

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

Page 37 of 40

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			5-24-21 1632	2		
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 PM

Page 199 of 270

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

5/31/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, dan.moir@wsp.com

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No

Temperature (°C):		Thermometer ID	Pg 1
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

AFE: PA.2020.02621.EXP.01
API: 30-015-37588

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
FS15	s	5/21/2021	9:16	1'	1	x	x	x	Composite
FS16	s	5/21/2021	11:48	2'	1	x	x	x	Composite
FS17	s	5/21/2021	12:01	2'	1	x	x	x	Composite
FS18	s	5/21/2021	12:04	2'	1	x	x	x	Composite
FS19	s	5/21/2021	12:06	2'	1	x	x	x	Composite
FS20	s	5/21/2021	12:17	2'	1	x	x	x	Composite
FS21	s	5/21/2021	12:25	2'	1	x	x	x	Composite
FS22	s	5/21/2021	12:31	2'	1	x	x	x	Composite
FS23	s	5/21/2021	12:34	2'	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		5.24.21 1632	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 38 of 40

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-726-1
SDG Number: TE012921047

Login Number: 726
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: 890-726-1
SDG Number: TE012921047

Login Number: 726
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/26/21 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	
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: 890-735-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/31/2021 7:27:39 PM

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: ADU CTB

Laboratory Job ID: 890-735-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-735-1
Project/Site: ADU CTB SDG: TE012921047

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
B	Compound was found in the blank and sample.
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: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Job ID: 890-735-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-735-1

Receipt
The samples were received on 5/26/2021 12:53 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

Receipt Exceptions
The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: PH02 (890-735-1), PH02A (890-735-2), PH03 (890-735-3), PH03A (890-735-4), PH04 (890-735-5), PH04A (890-735-6), PH05 (890-735-7), PH05A (890-735-8), PH06 (890-735-9), PH06A (890-735-10), PH07 (890-735-11), PH07A (890-735-12), PH08 (890-735-13) and PH08A (890-735-14).
BTEX 8021

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: PH04A (890-735-6), PH05A (890-735-8), PH06 (890-735-9), PH07 (890-735-11) and PH08 (890-735-13). 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: Manual integration was performed on the following samples: PH02 (890-735-1), PH02A (890-735-2), PH03 (890-735-3), PH03A (890-735-4), PH04 (890-735-5), PH04A (890-735-6), PH05 (890-735-7), PH05A (890-735-8), PH06 (890-735-9), PH06A (890-735-10), PH07 (890-735-11), PH07A (890-735-12), PH08 (890-735-13), PH08A (890-735-14) and (MB 880-3585/1-A). Manual integrations were performed in the Over C10-C28 hydrocarbon range and the Over C28-C36 hydrocarbon range due to false detections created by a baseline rise.

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 880-3573 and analytical batch 880-3640 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: PH02 (890-735-1), PH02A (890-735-2), PH03 (890-735-3), PH03A (890-735-4), PH04 (890-735-5) and (880-2537-A-1-A).

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: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH02

Lab Sample ID: 890-735-1
Matrix: Solid
Date Collected: 05/26/21 09:09
Date Received: 05/26/21 12:53
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		05/27/21 12:00	05/27/21 18:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:00	05/27/21 18:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:00	05/27/21 18:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/27/21 12:00	05/27/21 18:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:00	05/27/21 18:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/27/21 12:00	05/27/21 18:36	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/27/21 12:00	05/27/21 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*05/27/21 12:00*	*05/27/21 18:36*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*05/27/21 12:00*	*05/27/21 18:36*	*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		05/27/21 14:14	05/28/21 15:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 15:56	1
Oil Range Organics (Over C28-C36)	**75.8**	**B**	49.9		mg/Kg		05/27/21 14:14	05/28/21 15:56	1
Total TPH	**75.8**	**B**	49.9		mg/Kg		05/27/21 14:14	05/28/21 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/27/21 14:14*	*05/28/21 15:56*	*1*
o-Terphenyl	*93*		*70 - 130*	*05/27/21 14:14*	*05/28/21 15:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60.8**		4.98		mg/Kg			05/30/21 11:04	1

Client Sample ID: PH02A

Lab Sample ID: 890-735-2
Matrix: Solid
Date Collected: 05/26/21 09:12
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:00	05/27/21 18:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:00	05/27/21 18:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:00	05/27/21 18:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/27/21 12:00	05/27/21 18:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:00	05/27/21 18:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/27/21 12:00	05/27/21 18:56	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/27/21 12:00	05/27/21 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/27/21 12:00*	*05/27/21 18:56*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/27/21 12:00*	*05/27/21 18:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH02A

Lab Sample ID: 890-735-2
Matrix: Solid
Date Collected: 05/26/21 09:12
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

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		05/27/21 14:14	05/28/21 17:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 17:00	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 17:00	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 14:14*	*05/28/21 17:00*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/27/21 14:14*	*05/28/21 17:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1420**		4.96		mg/Kg			05/30/21 11:10	1

Client Sample ID: PH03

Lab Sample ID: 890-735-3
Matrix: Solid
Date Collected: 05/26/21 09:27
Date Received: 05/26/21 12:53
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:16	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:16	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:16	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/27/21 12:00	05/27/21 19:16	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:16	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/27/21 12:00	05/27/21 19:16	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		05/27/21 12:00	05/27/21 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*05/27/21 12:00*	*05/27/21 19:16*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/27/21 12:00*	*05/27/21 19:16*	*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		05/27/21 14:14	05/28/21 17:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 17:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 17:21	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 17:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*05/27/21 14:14*	*05/28/21 17:21*	*1*
o-Terphenyl	*109*		*70 - 130*	*05/27/21 14:14*	*05/28/21 17:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.1**		4.97		mg/Kg			05/30/21 11:17	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-735-1
Project/Site: ADU CTB SDG: TE012921047

Client Sample ID: PH03A — Lab Sample ID: 890-735-4

Date Collected: 05/26/21 09:31 **Matrix: Solid**
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:37	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/27/21 12:00	05/27/21 19:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:00	05/27/21 19:37	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/27/21 12:00	05/27/21 19:37	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/27/21 12:00	05/27/21 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/27/21 12:00*	*05/27/21 19:37*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/27/21 12:00*	*05/27/21 19:37*	*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		05/27/21 14:14	05/28/21 17:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 17:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 17:43	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/27/21 14:14*	*05/28/21 17:43*	*1*
o-Terphenyl	*100*		*70 - 130*	*05/27/21 14:14*	*05/28/21 17:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**254**		5.00		mg/Kg			05/30/21 11:23	1

Client Sample ID: PH04 — Lab Sample ID: 890-735-5

Date Collected: 05/26/21 09:42 **Matrix: Solid**
Date Received: 05/26/21 12:53
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		05/27/21 12:30	05/27/21 16:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/27/21 12:30	05/27/21 16:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/27/21 12:30	05/27/21 16:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/27/21 12:30	05/27/21 16:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/27/21 12:30	05/27/21 16:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/27/21 12:30	05/27/21 16:15	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		05/27/21 12:30	05/27/21 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/27/21 12:30*	*05/27/21 16:15*	*1*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*05/27/21 12:30*	*05/27/21 16:15*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH04

Lab Sample ID: 890-735-5
Matrix: Solid
Date Collected: 05/26/21 09:42
Date Received: 05/26/21 12:53
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	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 18:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 18:04	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 18:04	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*05/27/21 14:14*	*05/28/21 18:04*	*1*
o-Terphenyl	*85*		*70 - 130*	*05/27/21 14:14*	*05/28/21 18:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**131**		5.00		mg/Kg			05/30/21 11:29	1

Client Sample ID: PH04A

Lab Sample ID: 890-735-6
Matrix: Solid
Date Collected: 05/26/21 09:45
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 16:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 16:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 16:35	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/27/21 12:30	05/27/21 16:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 16:35	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/27/21 12:30	05/27/21 16:35	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/27/21 12:30	05/27/21 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/27/21 12:30*	*05/27/21 16:35*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*05/27/21 12:30*	*05/27/21 16:35*	*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		05/27/21 14:14	05/28/21 18:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 18:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 18:26	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/27/21 14:14*	*05/28/21 18:26*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/27/21 14:14*	*05/28/21 18:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.4**		4.97		mg/Kg			05/28/21 15:04	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH05

Lab Sample ID: 890-735-7
Matrix: Solid
Date Collected: 05/26/21 09:58
Date Received: 05/26/21 12:53
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		05/27/21 12:30	05/27/21 16:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:30	05/27/21 16:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:30	05/27/21 16:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/27/21 12:30	05/27/21 16:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:30	05/27/21 16:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/27/21 12:30	05/27/21 16:56	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/27/21 12:30	05/27/21 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/27/21 12:30*	*05/27/21 16:56*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*05/27/21 12:30*	*05/27/21 16:56*	*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		05/27/21 14:14	05/28/21 18:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 18:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 18:47	1
Total TPH	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*05/27/21 14:14*	*05/28/21 18:47*	*1*
o-Terphenyl	*91*		*70 - 130*	*05/27/21 14:14*	*05/28/21 18:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.9**		4.96		mg/Kg			05/28/21 15:09	1

Client Sample ID: PH05A

Lab Sample ID: 890-735-8
Matrix: Solid
Date Collected: 05/26/21 10:02
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00211**		0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 17:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:17	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 17:17	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/27/21 12:30*	*05/27/21 17:17*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/27/21 12:30*	*05/27/21 17:17*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH05A

Lab Sample ID: 890-735-8
Matrix: Solid
Date Collected: 05/26/21 10:02
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

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		05/27/21 14:14	05/28/21 19:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 19:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 19:08	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*05/27/21 14:14*	*05/28/21 19:08*	*1*
o-Terphenyl	*89*		*70 - 130*	*05/27/21 14:14*	*05/28/21 19:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.3**		5.03		mg/Kg			05/28/21 15:23	1

Client Sample ID: PH06

Lab Sample ID: 890-735-9
Matrix: Solid
Date Collected: 05/26/21 10:13
Date Received: 05/26/21 12:53
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		05/27/21 12:30	05/27/21 17:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 17:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 17:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 17:37	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/27/21 12:30*	*05/27/21 17:37*	*1*
1,4-Difluorobenzene (Surr)	*128*		*70 - 130*	*05/27/21 12:30*	*05/27/21 17:37*	*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		05/27/21 14:14	05/28/21 19:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 19:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 19:30	1
Total TPH	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/27/21 14:14*	*05/28/21 19:30*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/27/21 14:14*	*05/28/21 19:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.68**		5.02		mg/Kg			05/28/21 15:28	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH06A

Lab Sample ID: 890-735-10
Matrix: Solid

Date Collected: 05/26/21 10:17
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:30	05/27/21 17:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:30	05/27/21 17:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:30	05/27/21 17:58	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/27/21 12:30	05/27/21 17:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/27/21 12:30	05/27/21 17:58	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/27/21 12:30	05/27/21 17:58	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/27/21 12:30	05/27/21 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/27/21 12:30*	*05/27/21 17:58*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*05/27/21 12:30*	*05/27/21 17:58*	*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		05/27/21 14:14	05/28/21 19:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 19:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 19:51	1
Total TPH	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/27/21 14:14*	*05/28/21 19:51*	*1*
o-Terphenyl	*88*		*70 - 130*	*05/27/21 14:14*	*05/28/21 19:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.8**		5.01		mg/Kg			05/28/21 16:13	1

Client Sample ID: PH07

Lab Sample ID: 890-735-11
Matrix: Solid

Date Collected: 05/26/21 10:27
Date Received: 05/26/21 12:53
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		05/27/21 12:30	05/27/21 18:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:30	05/27/21 18:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:30	05/27/21 18:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/27/21 12:30	05/27/21 18:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/27/21 12:30	05/27/21 18:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/27/21 12:30	05/27/21 18:19	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/27/21 12:30	05/27/21 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/27/21 12:30*	*05/27/21 18:19*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*05/27/21 12:30*	*05/27/21 18:19*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH07

Date Collected: 05/26/21 10:27
Date Received: 05/26/21 12:53
Sample Depth: - 1

Lab Sample ID: 890-735-11
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		05/27/21 14:14	05/28/21 20:33	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 20:33	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 20:33	1
Total TPH	<49.8	U	49.8		mg/Kg		05/27/21 14:14	05/28/21 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*05/27/21 14:14*	*05/28/21 20:33*	*1*
o-Terphenyl	*90*		*70 - 130*	*05/27/21 14:14*	*05/28/21 20:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.7**		4.98		mg/Kg			05/28/21 16:17	1

Client Sample ID: PH07A

Date Collected: 05/26/21 10:31
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Lab Sample ID: 890-735-12
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		05/27/21 12:30	05/27/21 18:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 18:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 18:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/27/21 12:30	05/27/21 18:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 18:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/27/21 12:30	05/27/21 18:40	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/27/21 12:30	05/27/21 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/27/21 12:30*	*05/27/21 18:40*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/27/21 12:30*	*05/27/21 18:40*	*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		05/27/21 14:14	05/28/21 20:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 20:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 20:54	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*05/27/21 14:14*	*05/28/21 20:54*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/27/21 14:14*	*05/28/21 20:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**112**		4.99		mg/Kg			05/28/21 16:22	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH08

Lab Sample ID: 890-735-13
Matrix: Solid
Date Collected: 05/26/21 10:41
Date Received: 05/26/21 12:53
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		05/27/21 12:30	05/27/21 19:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 19:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:00	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 19:00	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/27/21 12:30	05/27/21 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*05/27/21 12:30*	*05/27/21 19:00*	*1*
1,4-Difluorobenzene (Surr)	*183*	*S1+*	*70 - 130*	*05/27/21 12:30*	*05/27/21 19:00*	*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		05/27/21 14:14	05/28/21 21:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 21:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 21:16	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*05/27/21 14:14*	*05/28/21 21:16*	*1*
o-Terphenyl	*92*		*70 - 130*	*05/27/21 14:14*	*05/28/21 21:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.73**		5.00		mg/Kg			05/28/21 16:27	1

Client Sample ID: PH08A

Lab Sample ID: 890-735-14
Matrix: Solid
Date Collected: 05/26/21 10:45
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00269**		0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/27/21 12:30	05/27/21 19:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 12:30	05/27/21 19:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/27/21 12:30	05/27/21 19:21	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/27/21 12:30	05/27/21 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/27/21 12:30*	*05/27/21 19:21*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*05/27/21 12:30*	*05/27/21 19:21*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH08A

Date Collected: 05/26/21 10:45
Date Received: 05/26/21 12:53
Sample Depth: - 4.5

Lab Sample ID: 890-735-14

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		05/27/21 14:14	05/28/21 21:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 21:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 21:37	1
Total TPH	<49.9	U	49.9		mg/Kg		05/27/21 14:14	05/28/21 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/27/21 14:14*	*05/28/21 21:37*	*1*
o-Terphenyl	*88*		*70 - 130*	*05/27/21 14:14*	*05/28/21 21:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.8**		5.03		mg/Kg			05/28/21 16:32	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

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)
890-735-1	PH02	129	109
890-735-2	PH02A	114	103
890-735-3	PH03	111	98
890-735-4	PH03A	106	96
890-735-5	PH04	96	121
890-735-5 MS	PH04	92	126
890-735-5 MSD	PH04	82	100
890-735-6	PH04A	106	120
890-735-7	PH05	100	120
890-735-8	PH05A	108	132 S1+
890-735-9	PH06	114	128
890-735-10	PH06A	100	117
890-735-11	PH07	107	117
890-735-12	PH07A	98	132 S1+
890-735-13	PH08	139 S1+	183 S1+
890-735-14	PH08A	101	123
LCS 880-3541/1-A	Lab Control Sample	112	104
LCS 880-3570/1-A	Lab Control Sample	83	113
LCSD 880-3541/2-A	Lab Control Sample Dup	113	104
LCSD 880-3570/2-A	Lab Control Sample Dup	90	122
MB 880-3541/5-A	Method Blank	87	96
MB 880-3570/5-A	Method Blank	100	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)
890-735-1	PH02	93	93
890-735-1 MS	PH02	91	78
890-735-1 MSD	PH02	85	75
890-735-2	PH02A	96	90
890-735-3	PH03	117	109
890-735-4	PH03A	105	100
890-735-5	PH04	88	85
890-735-6	PH04A	95	90
890-735-7	PH05	94	91
890-735-8	PH05A	92	89
890-735-9	PH06	105	103
890-735-10	PH06A	93	88
890-735-11	PH07	97	90
890-735-12	PH07A	94	92
890-735-13	PH08	95	92
890-735-14	PH08A	93	88
LCS 880-3585/3-A	Lab Control Sample	96	86

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-735-1
Project/Site: ADU CTB SDG: TE012921047

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 880-3585/1-A	Method Blank	96	91								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3541/5-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3541

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/26/21 16:00	05/27/21 11:26	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/26/21 16:00	05/27/21 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/26/21 16:00*	*05/27/21 11:26*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/26/21 16:00*	*05/27/21 11:26*	*1*

Lab Sample ID: LCS 880-3541/1-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3541

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1094		mg/Kg		109	70 - 130		
Toluene			0.100	0.1037		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1072		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2293		mg/Kg		115	70 - 130		
o-Xylene			0.100	0.1137		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-3541/2-A
Matrix: Solid
Analysis Batch: 3558

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3541

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1083		mg/Kg		108	70 - 130	1	35
Toluene			0.100	0.1039		mg/Kg		104	70 - 130	0	35
Ethylbenzene			0.100	0.1087		mg/Kg		109	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2353		mg/Kg		118	70 - 130	3	35
o-Xylene			0.100	0.1177		mg/Kg		118	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 880-3570/5-A
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3570

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/27/21 11:00	05/27/21 15:46	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

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

Lab Sample ID: MB 880-3570/5-A
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3570

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		05/27/21 11:00	05/27/21 15:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/27/21 11:00	05/27/21 15:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/27/21 11:00	05/27/21 15:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/27/21 11:00	05/27/21 15:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/27/21 11:00	05/27/21 15:46	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/27/21 11:00	05/27/21 15:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/27/21 11:00*	*05/27/21 15:46*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/27/21 11:00*	*05/27/21 15:46*	*1*

Lab Sample ID: LCS 880-3570/1-A
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3570

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09509		mg/Kg		95	70 - 130		
Toluene			0.100	0.09670		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.09177		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1821		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.08735		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 880-3570/2-A
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3570

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1037		mg/Kg		104	70 - 130	9	35
Toluene			0.100	0.1067		mg/Kg		107	70 - 130	10	35
Ethylbenzene			0.100	0.09644		mg/Kg		96	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1950		mg/Kg		97	70 - 130	7	35
o-Xylene			0.100	0.09500		mg/Kg		95	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*

Lab Sample ID: 890-735-5 MS
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: PH04
Prep Type: Total/NA
Prep Batch: 3570

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U	0.100	0.1017		mg/Kg		100	70 - 130		
Toluene	<0.00202	U	0.100	0.09770		mg/Kg		97	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

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

Lab Sample ID: 890-735-5 MS
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: PH04
Prep Type: Total/NA
Prep Batch: 3570

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.100	0.08887		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1802		mg/Kg		90	70 - 130
o-Xylene	<0.00202	U	0.100	0.08611		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*

Lab Sample ID: 890-735-5 MSD
Matrix: Solid
Analysis Batch: 3571

Client Sample ID: PH04
Prep Type: Total/NA
Prep Batch: 3570

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.08565		mg/Kg		85	70 - 130	17	35
Toluene	<0.00202	U	0.0990	0.08809		mg/Kg		89	70 - 130	10	35
Ethylbenzene	<0.00202	U	0.0990	0.08162		mg/Kg		82	70 - 130	9	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1651		mg/Kg		83	70 - 130	9	35
o-Xylene	<0.00202	U	0.0990	0.08118		mg/Kg		82	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-3585/1-A
Matrix: Solid
Analysis Batch: 3616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3585

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		05/27/21 14:14	05/28/21 14:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/27/21 14:14	05/28/21 14:51	1
OII Range Organics (Over C28-C36)	107.7		50.0		mg/Kg		05/27/21 14:14	05/28/21 14:51	1
Total TPH	107.7		50.0		mg/Kg		05/27/21 14:14	05/28/21 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*05/27/21 14:14*	*05/28/21 14:51*	*1*
o-Terphenyl	*91*		*70 - 130*	*05/27/21 14:14*	*05/28/21 14:51*	*1*

Lab Sample ID: LCS 880-3585/3-A
Matrix: Solid
Analysis Batch: 3616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3585

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	844.3		mg/Kg		84	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

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

Lab Sample ID: LCS 880-3585/3-A
Matrix: Solid
Analysis Batch: 3616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3585

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	892.1		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 890-735-1 MS
Matrix: Solid
Analysis Batch: 3616

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 3585

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	879.2		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	895.8		mg/Kg		90	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*91*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: 890-735-1 MSD
Matrix: Solid
Analysis Batch: 3616

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 3585

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	819.6		mg/Kg		81	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	824.1		mg/Kg		83	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3587/1-A
Matrix: Solid
Analysis Batch: 3608

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			05/28/21 13:46	1

Lab Sample ID: LCS 880-3587/2-A
Matrix: Solid
Analysis Batch: 3608

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	244.0		mg/Kg		98	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-3587/3-A
Matrix: Solid
Analysis Batch: 3608

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	244.1		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-735-7 MS
Matrix: Solid
Analysis Batch: 3608

Client Sample ID: PH05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	81.9		248	333.6		mg/Kg		101	90 - 110

Lab Sample ID: 890-735-7 MSD
Matrix: Solid
Analysis Batch: 3608

Client Sample ID: PH05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	81.9		248	333.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-3573/1-A
Matrix: Solid
Analysis Batch: 3640

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			05/29/21 17:39	1

Lab Sample ID: LCS 880-3573/2-A
Matrix: Solid
Analysis Batch: 3640

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	252.2		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-3573/3-A
Matrix: Solid
Analysis Batch: 3640

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	251.9		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

GC VOA

Prep Batch: 3541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-1	PH02	Total/NA	Solid	5035	
890-735-2	PH02A	Total/NA	Solid	5035	
890-735-3	PH03	Total/NA	Solid	5035	
890-735-4	PH03A	Total/NA	Solid	5035	
MB 880-3541/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3541/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3541/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-1	PH02	Total/NA	Solid	8021B	3541
890-735-2	PH02A	Total/NA	Solid	8021B	3541
890-735-3	PH03	Total/NA	Solid	8021B	3541
890-735-4	PH03A	Total/NA	Solid	8021B	3541
MB 880-3541/5-A	Method Blank	Total/NA	Solid	8021B	3541
LCS 880-3541/1-A	Lab Control Sample	Total/NA	Solid	8021B	3541
LCSD 880-3541/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3541

Prep Batch: 3570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-5	PH04	Total/NA	Solid	5035	
890-735-6	PH04A	Total/NA	Solid	5035	
890-735-7	PH05	Total/NA	Solid	5035	
890-735-8	PH05A	Total/NA	Solid	5035	
890-735-9	PH06	Total/NA	Solid	5035	
890-735-10	PH06A	Total/NA	Solid	5035	
890-735-11	PH07	Total/NA	Solid	5035	
890-735-12	PH07A	Total/NA	Solid	5035	
890-735-13	PH08	Total/NA	Solid	5035	
890-735-14	PH08A	Total/NA	Solid	5035	
MB 880-3570/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3570/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3570/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-735-5 MS	PH04	Total/NA	Solid	5035	
890-735-5 MSD	PH04	Total/NA	Solid	5035	

Analysis Batch: 3571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-5	PH04	Total/NA	Solid	8021B	3570
890-735-6	PH04A	Total/NA	Solid	8021B	3570
890-735-7	PH05	Total/NA	Solid	8021B	3570
890-735-8	PH05A	Total/NA	Solid	8021B	3570
890-735-9	PH06	Total/NA	Solid	8021B	3570
890-735-10	PH06A	Total/NA	Solid	8021B	3570
890-735-11	PH07	Total/NA	Solid	8021B	3570
890-735-12	PH07A	Total/NA	Solid	8021B	3570
890-735-13	PH08	Total/NA	Solid	8021B	3570
890-735-14	PH08A	Total/NA	Solid	8021B	3570
MB 880-3570/5-A	Method Blank	Total/NA	Solid	8021B	3570
LCS 880-3570/1-A	Lab Control Sample	Total/NA	Solid	8021B	3570
LCSD 880-3570/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3570

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

GC VOA (Continued)

Analysis Batch: 3571 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-5 MS	PH04	Total/NA	Solid	8021B	3570
890-735-5 MSD	PH04	Total/NA	Solid	8021B	3570

GC Semi VOA

Prep Batch: 3585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-1	PH02	Total/NA	Solid	8015NM Prep	
890-735-2	PH02A	Total/NA	Solid	8015NM Prep	
890-735-3	PH03	Total/NA	Solid	8015NM Prep	
890-735-4	PH03A	Total/NA	Solid	8015NM Prep	
890-735-5	PH04	Total/NA	Solid	8015NM Prep	
890-735-6	PH04A	Total/NA	Solid	8015NM Prep	
890-735-7	PH05	Total/NA	Solid	8015NM Prep	
890-735-8	PH05A	Total/NA	Solid	8015NM Prep	
890-735-9	PH06	Total/NA	Solid	8015NM Prep	
890-735-10	PH06A	Total/NA	Solid	8015NM Prep	
890-735-11	PH07	Total/NA	Solid	8015NM Prep	
890-735-12	PH07A	Total/NA	Solid	8015NM Prep	
890-735-13	PH08	Total/NA	Solid	8015NM Prep	
890-735-14	PH08A	Total/NA	Solid	8015NM Prep	
MB 880-3585/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3585/3-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
890-735-1 MS	PH02	Total/NA	Solid	8015NM Prep	
890-735-1 MSD	PH02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-1	PH02	Total/NA	Solid	8015B NM	3585
890-735-2	PH02A	Total/NA	Solid	8015B NM	3585
890-735-3	PH03	Total/NA	Solid	8015B NM	3585
890-735-4	PH03A	Total/NA	Solid	8015B NM	3585
890-735-5	PH04	Total/NA	Solid	8015B NM	3585
890-735-6	PH04A	Total/NA	Solid	8015B NM	3585
890-735-7	PH05	Total/NA	Solid	8015B NM	3585
890-735-8	PH05A	Total/NA	Solid	8015B NM	3585
890-735-9	PH06	Total/NA	Solid	8015B NM	3585
890-735-10	PH06A	Total/NA	Solid	8015B NM	3585
890-735-11	PH07	Total/NA	Solid	8015B NM	3585
890-735-12	PH07A	Total/NA	Solid	8015B NM	3585
890-735-13	PH08	Total/NA	Solid	8015B NM	3585
890-735-14	PH08A	Total/NA	Solid	8015B NM	3585
MB 880-3585/1-A	Method Blank	Total/NA	Solid	8015B NM	3585
LCS 880-3585/3-A	Lab Control Sample	Total/NA	Solid	8015B NM	3585
890-735-1 MS	PH02	Total/NA	Solid	8015B NM	3585
890-735-1 MSD	PH02	Total/NA	Solid	8015B NM	3585

HPLC/IC

Leach Batch: 3573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-1	PH02	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

HPLC/IC (Continued)

Leach Batch: 3573 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-2	PH02A	Soluble	Solid	DI Leach	
890-735-3	PH03	Soluble	Solid	DI Leach	
890-735-4	PH03A	Soluble	Solid	DI Leach	
890-735-5	PH04	Soluble	Solid	DI Leach	
MB 880-3573/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3573/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3573/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 3587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-6	PH04A	Soluble	Solid	DI Leach	
890-735-7	PH05	Soluble	Solid	DI Leach	
890-735-8	PH05A	Soluble	Solid	DI Leach	
890-735-9	PH06	Soluble	Solid	DI Leach	
890-735-10	PH06A	Soluble	Solid	DI Leach	
890-735-11	PH07	Soluble	Solid	DI Leach	
890-735-12	PH07A	Soluble	Solid	DI Leach	
890-735-13	PH08	Soluble	Solid	DI Leach	
890-735-14	PH08A	Soluble	Solid	DI Leach	
MB 880-3587/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3587/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3587/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-735-7 MS	PH05	Soluble	Solid	DI Leach	
890-735-7 MSD	PH05	Soluble	Solid	DI Leach	

Analysis Batch: 3608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-6	PH04A	Soluble	Solid	300.0	3587
890-735-7	PH05	Soluble	Solid	300.0	3587
890-735-8	PH05A	Soluble	Solid	300.0	3587
890-735-9	PH06	Soluble	Solid	300.0	3587
890-735-10	PH06A	Soluble	Solid	300.0	3587
890-735-11	PH07	Soluble	Solid	300.0	3587
890-735-12	PH07A	Soluble	Solid	300.0	3587
890-735-13	PH08	Soluble	Solid	300.0	3587
890-735-14	PH08A	Soluble	Solid	300.0	3587
MB 880-3587/1-A	Method Blank	Soluble	Solid	300.0	3587
LCS 880-3587/2-A	Lab Control Sample	Soluble	Solid	300.0	3587
LCSD 880-3587/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3587
890-735-7 MS	PH05	Soluble	Solid	300.0	3587
890-735-7 MSD	PH05	Soluble	Solid	300.0	3587

Analysis Batch: 3640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-735-1	PH02	Soluble	Solid	300.0	3573
890-735-2	PH02A	Soluble	Solid	300.0	3573
890-735-3	PH03	Soluble	Solid	300.0	3573
890-735-4	PH03A	Soluble	Solid	300.0	3573
890-735-5	PH04	Soluble	Solid	300.0	3573
MB 880-3573/1-A	Method Blank	Soluble	Solid	300.0	3573
LCS 880-3573/2-A	Lab Control Sample	Soluble	Solid	300.0	3573

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

HPLC/IC (Continued)

Analysis Batch: 3640 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-3573/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3573

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH02
Date Collected: 05/26/21 09:09
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/27/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 18:36	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 15:56	AJ	XEN MID
Soluble	Leach	DI Leach			3573	05/27/21 11:36	CH	XEN MID
Soluble	Analysis	300.0		1	3640	05/30/21 11:04	SC	XEN MID

Client Sample ID: PH02A
Date Collected: 05/26/21 09:12
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/27/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 18:56	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 17:00	AJ	XEN MID
Soluble	Leach	DI Leach			3573	05/27/21 11:36	CH	XEN MID
Soluble	Analysis	300.0		1	3640	05/30/21 11:10	SC	XEN MID

Client Sample ID: PH03
Date Collected: 05/26/21 09:27
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/27/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 19:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 17:21	AJ	XEN MID
Soluble	Leach	DI Leach			3573	05/27/21 11:36	CH	XEN MID
Soluble	Analysis	300.0		1	3640	05/30/21 11:17	SC	XEN MID

Client Sample ID: PH03A
Date Collected: 05/26/21 09:31
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3541	05/27/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3558	05/27/21 19:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 17:43	AJ	XEN MID
Soluble	Leach	DI Leach			3573	05/27/21 11:36	CH	XEN MID
Soluble	Analysis	300.0		1	3640	05/30/21 11:23	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH04
Date Collected: 05/26/21 09:42
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 16:15	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 18:04	AJ	XEN MID
Soluble	Leach	DI Leach			3573	05/27/21 11:36	CH	XEN MID
Soluble	Analysis	300.0		1	3640	05/30/21 11:29	SC	XEN MID

Client Sample ID: PH04A
Date Collected: 05/26/21 09:45
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 16:35	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 18:26	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 15:04	SC	XEN MID

Client Sample ID: PH05
Date Collected: 05/26/21 09:58
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 16:56	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 18:47	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 15:09	SC	XEN MID

Client Sample ID: PH05A
Date Collected: 05/26/21 10:02
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 17:17	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 19:08	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 15:23	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH06
Date Collected: 05/26/21 10:13
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 17:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 19:30	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 15:28	SC	XEN MID

Client Sample ID: PH06A
Date Collected: 05/26/21 10:17
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 17:58	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 19:51	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 16:13	SC	XEN MID

Client Sample ID: PH07
Date Collected: 05/26/21 10:27
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 18:19	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 20:33	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 16:17	SC	XEN MID

Client Sample ID: PH07A
Date Collected: 05/26/21 10:31
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 18:40	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 20:54	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 16:22	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Client Sample ID: PH08

Date Collected: 05/26/21 10:41
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 19:00	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 21:16	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 16:27	SC	XEN MID

Client Sample ID: PH08A

Date Collected: 05/26/21 10:45
Date Received: 05/26/21 12:53

Lab Sample ID: 890-735-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3570	05/27/21 12:30	KL	XEN MID
Total/NA	Analysis	8021B		1	3571	05/27/21 19:21	KL	XEN MID
Total/NA	Prep	8015NM Prep			3585	05/27/21 14:14	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3616	05/28/21 21:37	AJ	XEN MID
Soluble	Leach	DI Leach			3587	05/27/21 14:55	CH	XEN MID
Soluble	Analysis	300.0		1	3608	05/28/21 16:32	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: 890-735-1
Project/Site: ADU CTB SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-735-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-735-1	PH02	Solid	05/26/21 09:09	05/26/21 12:53	- 1
890-735-2	PH02A	Solid	05/26/21 09:12	05/26/21 12:53	- 4.5
890-735-3	PH03	Solid	05/26/21 09:27	05/26/21 12:53	- 1
890-735-4	PH03A	Solid	05/26/21 09:31	05/26/21 12:53	- 4.5
890-735-5	PH04	Solid	05/26/21 09:42	05/26/21 12:53	- 1
890-735-6	PH04A	Solid	05/26/21 09:45	05/26/21 12:53	- 4.5
890-735-7	PH05	Solid	05/26/21 09:58	05/26/21 12:53	- 1
890-735-8	PH05A	Solid	05/26/21 10:02	05/26/21 12:53	- 4.5
890-735-9	PH06	Solid	05/26/21 10:13	05/26/21 12:53	- 1
890-735-10	PH06A	Solid	05/26/21 10:17	05/26/21 12:53	- 4.5
890-735-11	PH07	Solid	05/26/21 10:27	05/26/21 12:53	- 1
890-735-12	PH07A	Solid	05/26/21 10:31	05/26/21 12:53	- 4.5
890-735-13	PH08	Solid	05/26/21 10:41	05/26/21 12:53	- 1
890-735-14	PH08A	Solid	05/26/21 10:45	05/26/21 12:53	- 4.5

Page 234 of 270

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

5/31/2021

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:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	☒
P.O. Number:	CC: 1056011001	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		
Received Intact:	Yes	No	T-NM-001		
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes	No	N/A	Total Containers:	

ANALYSIS REQUEST

890-735 Chain of Custody

Work Order Notes

Incident #: NAPP2108543210

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
PH02	S	5/26/2021	909	1'	1	X	X	X	
PH02A	S	5/26/2021	912	4.5'	1	X	X	X	
PH03	S	5/26/2021	927	1'	1	X	X	X	
PH03A	S	5/26/2021	931	4.5'	1	X	X	X	
PH04	S	5/26/2021	942	1'	1	X	X	X	
PH04A	S	5/26/2021	945	4.5'	1	X	X	X	
PH05	S	5/26/2021	958	1'	1	X	X	X	
PH05A	S	5/26/2021	1002	4.5'	1	X	X	X	
PH06	S	5/26/2021	1013	1'	1	X	X	X	
PH06A	S	5/26/2021	1017	4.5'	1	X	X	X	

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		5/20/21 18:53	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Page 33 of 38

Received by OCD: 6/16/2021 9:31:55 AM

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Page 235 of 270

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

5/31/2021

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 ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine	☒
P.O. Number:	CC: 1056011001	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		
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

Work Order Notes

Incident #: NAPP2108543210

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
PH07	S	5/26/2021	1027	1'	1	X	X	X	
PH07A	S	5/26/2021	1031	4.5'	1	X	X	X	
PH08	S	5/26/2021	1041	1'	1	X	X	X	
PH08A	S	5/26/2021	1045	4.5'	1	X	X	X	

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		5/26/21 / 12:53	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

Page 34 of 38

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 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: 890-241 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 #: 890-735-1
Address: 1211 W Florida Ave ,	Due Date Requested: 6/2/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ADU CTB	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 Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5036FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PH02 (890-735-1)	5/26/21	09 09 Mountain		Solid			X	X	X	1	
PH02A (890-735-2)	5/26/21	09 12 Mountain		Solid			X	X	X	1	
PH03 (890-735-3)	5/26/21	09 27 Mountain		Solid			X	X	X	1	
PH03A (890-735-4)	5/26/21	09 31 Mountain		Solid			X	X	X	1	
PH04 (890-735-5)	5/26/21	09 42 Mountain		Solid			X	X	X	1	
PH04A (890-735-6)	5/26/21	09 45 Mountain		Solid			X	X	X	1	
PH05 (890-735-7)	5/26/21	09 58 Mountain		Solid			X	X	X	1	
PH05A (890-735-8)	5/26/21	10 02 Mountain		Solid			X	X	X	1	
PH06 (890-735-9)	5/26/21	10 13 Mountain		Solid			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 Cisneros 5.26.21	Date/Time:	Company	Received by:	Date/Time: 5/27/21 1033	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: 11/01/2020

Page 236 of 270
Received by OCD: 6/16/2021 9:31:55 AM
5/31/2021
Page 35 of 38
Released to Imaging: 9/16/2021 2:55:52 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: 890-241 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 #: 890-735-1
Address: 1211 W Florida Ave	Due Date Requested: 6/2/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: ADU CTB	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/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
			Preservation Code:								
PH08A (890-735-10)	5/26/21	10 17 Mountain		Solid			X	X	X	1	
PH07 (890-735-11)	5/26/21	10 27 Mountain		Solid			X	X	X	1	
PH07A (890-735-12)	5/26/21	10 31 Mountain		Solid			X	X	X	1	
PH08 (890-735-13)	5/26/21	10 41 Mountain		Solid			X	X	X	1	
PH08A (890-735-14)	5/26/21	10 45 Mountain		Solid			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
Clue Cupo 5-26-21			Kahn	5/27/21 1033	
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 11/01/2020

Page 237 of 270
Received by OCD: 6/16/2021 9:31:55 AM
5/31/2021
Page 36 of 38
Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-735-1
SDG Number: TE012921047

Login Number: 735
List Number: 1
Creator: Ordonez, Gabby

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: 890-735-1
SDG Number: TE012921047

Login Number: 735
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 05/27/21 11:06 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?	N/A	
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	

Analytical Report 638613

for

LT Environmental, Inc.

Project Manager: Dan Moir

ADU 157 (2RP-4778)

012918118

08-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

08-OCT-19

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **638613**
ADU 157 (2RP-4778)
Project Address: Carlsbad, NM

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 638613. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 638613 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

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Sample Cross Reference 638613

LT Environmental, Inc., Arvada, CO

ADU 157 (2RP-4778)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WS01	W	10-01-19 11:20		638613-001

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ADU 157 (2RP-4778)

Project ID: *012918118*
Work Order Number(s): *638613*

Report Date: *08-OCT-19*
Date Received: *10/01/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 638613

LT Environmental, Inc., Arvada, CO

Project Name: ADU 157 (2RP-4778)

Project Id: 012918118
Contact: Dan Moir
Project Location: Carlsbad, NM

Date Received in Lab: Tue Oct-01-19 12:55 pm
Report Date: 08-OCT-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	638613-001					
	Field Id:	WS01					
	Depth:						
	Matrix:	WATER					
	Sampled:	Oct-01-19 11:20					
TDS by SM2540C **SUB: T104704400-19-19**	***Extracted:***						
	Analyzed:	Oct-03-19 15:00					
	Units/RL:	mg/L	RL				
Total Dissolved Solids		11600	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 638613

LT Environmental, Inc., Arvada, CO

ADU 157 (2RP-4778)

Sample Id: **WS01** Matrix: Water Date Received:10.01.19 12.55

Lab Sample Id: 638613-001 Date Collected: 10.01.19 11.20

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3103415 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11600**	5.00	mg/L	10.03.19 15.00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Released to Imaging: 9/16/2021 2:55:52 PM

QC Summary 638613

LT Environmental, Inc.

ADU 157 (2RP-4778)

Analytical Method: **TDS by SM2540C**
Seq Number: 3103415 Matrix: Water
MB Sample Id: 3103415-1-BLK LCS Sample Id: 3103415-1-BKS LCSD Sample Id: 3103415-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	985	99	986	99	80-120	0	10	mg/L	10.03.19 15:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3103415 Matrix: Water
Parent Sample Id: 638660-003 MD Sample Id: 638660-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1130	1130	0	10	mg/L	10.03.19 15:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3103415 Matrix: Water
Parent Sample Id: 638845-007 MD Sample Id: 638845-007 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1710	1720	1	10	mg/L	10.03.19 15:00	

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Page 248 of 270

Chain of Custody

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: 638613

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental Inc.	Company Name:	XTO Energy
Address:	3300 North A. Street	Address:	3104 Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432. 236. 5849	Email:	bbelill@ltenv.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:	ADU 157 (RAP-4778)	Turn Around	
Project Number:	Well # CP00851	Routine	☒
Project Location	Carlsbad, NM	Rush:	
Sampler's Name:	Ben Belill	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.0	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:	1

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TDS
	WS01	W	10/1/19	11:20	—	1		X

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

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
		10/1/19@1255	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Received by OCD: 6/16/2021 9:31:55 AM
Released to Imaging: 9/16/2021 2:55:52 PM
Final 1.000
Page 9 of 12

Inter-Office Shipment

IOS Number **49088**

Date/Time: 10/01/19 14:56
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776429985847

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
638613-001	W	WS01	10/01/19 11:20	SM2540C	TDS by SM2540C	10/07/19	10/08/19	JKR	TDS	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 10/01/2019

Received By: Brianna Teel

Date Received: 10/02/2019 11:14

Cooler Temperature: 2.1

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 49088

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 10/01/2019 02:56 PM

Received By: Brianna Teel **Date Received:** 10/02/2019 11:14 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 10/02/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/01/2019 12:55:00 PM

Work Order #: 638613

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**Yes**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Midland
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/01/2019

Checklist reviewed by: Jessica Kramer Date: 10/03/2019

Jessica Kramer

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-751-1
Laboratory Sample Delivery Group: TE012921047
Client Project/Site: ADU CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
6/3/2021 9:46:08 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: ADU CTB

Laboratory Job ID: 890-751-1
SDG: TE012921047

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-751-1
Project/Site: ADU CTB SDG: TE012921047

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: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

Job ID: 890-751-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-751-1

Receipt
The sample was received on 6/2/2021 11:33 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 2.4°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS03A (890-751-1).

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

GC Semi VOA
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: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

Client Sample ID: FS03A

Date Collected: 06/02/21 10:04
Date Received: 06/02/21 11:33
Sample Depth: - 2.5

Lab Sample ID: 890-751-1

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		06/03/21 08:59	06/03/21 13:17	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/03/21 08:59	06/03/21 13:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/03/21 08:59	06/03/21 13:17	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/03/21 08:59	06/03/21 13:17	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/03/21 08:59	06/03/21 13:17	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/03/21 08:59	06/03/21 13:17	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		06/03/21 08:59	06/03/21 13:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*06/03/21 08:59*	*06/03/21 13:17*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/03/21 08:59*	*06/03/21 13:17*	*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	<49.8	U	49.8		mg/Kg		06/03/21 11:30	06/03/21 15:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/03/21 11:30	06/03/21 15:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/03/21 11:30	06/03/21 15:44	1
Total TPH	<49.8	U	49.8		mg/Kg		06/03/21 11:30	06/03/21 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*06/03/21 11:30*	*06/03/21 15:44*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/03/21 11:30*	*06/03/21 15:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**102**		5.00		mg/Kg			06/03/21 17:52	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

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)
890-751-1	FS03A	94	94
LCS 880-3757/1-A	Lab Control Sample	111	102
LCSD 880-3757/2-A	Lab Control Sample Dup	111	104
MB 880-3757/5-A	Method Blank	84	95

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)
890-751-1	FS03A	104	99
LCS 880-3764/2-A	Lab Control Sample	104	98
LCSD 880-3764/3-A	Lab Control Sample Dup	93	85
MB 880-3764/1-A	Method Blank	101	100

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3757/5-A
Matrix: Solid
Analysis Batch: 3760

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3757

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/03/21 08:59	06/03/21 12:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/03/21 08:59	06/03/21 12:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/03/21 08:59	06/03/21 12:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/03/21 08:59	06/03/21 12:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/03/21 08:59	06/03/21 12:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/03/21 08:59	06/03/21 12:15	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/03/21 08:59	06/03/21 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*06/03/21 08:59*	*06/03/21 12:15*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/03/21 08:59*	*06/03/21 12:15*	*1*

Lab Sample ID: LCS 880-3757/1-A
Matrix: Solid
Analysis Batch: 3760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3757

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09094		mg/Kg		91	70 - 130		
Toluene			0.100	0.08917		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.09572		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2034		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1020		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-3757/2-A
Matrix: Solid
Analysis Batch: 3760

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3757

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09334		mg/Kg		93	70 - 130	3	35
Toluene			0.100	0.09134		mg/Kg		91	70 - 130	2	35
Ethylbenzene			0.100	0.09707		mg/Kg		97	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2070		mg/Kg		103	70 - 130	2	35
o-Xylene			0.100	0.1039		mg/Kg		104	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

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

Lab Sample ID: MB 880-3764/1-A
Matrix: Solid
Analysis Batch: 3762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3764

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		06/03/21 09:22	06/03/21 14:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/03/21 09:22	06/03/21 14:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/03/21 09:22	06/03/21 14:43	1
Total TPH	<50.0	U	50.0		mg/Kg		06/03/21 09:22	06/03/21 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*06/03/21 09:22*	*06/03/21 14:43*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/03/21 09:22*	*06/03/21 14:43*	*1*

Lab Sample ID: LCS 880-3764/2-A
Matrix: Solid
Analysis Batch: 3762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3764

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	835.7		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	971.8		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: LCSD 880-3764/3-A
Matrix: Solid
Analysis Batch: 3762

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3764

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	938.3		mg/Kg		94	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	954.4		mg/Kg		95	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3747/1-A
Matrix: Solid
Analysis Batch: 3774

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			06/03/21 13:36	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3747/2-A
Matrix: Solid
Analysis Batch: 3774

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	242.6		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-3747/3-A
Matrix: Solid
Analysis Batch: 3774

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	241.9		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

GC VOA

Prep Batch: 3757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-751-1	FS03A	Total/NA	Solid	5035	
MB 880-3757/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3757/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3757/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-751-1	FS03A	Total/NA	Solid	8021B	3757
MB 880-3757/5-A	Method Blank	Total/NA	Solid	8021B	3757
LCS 880-3757/1-A	Lab Control Sample	Total/NA	Solid	8021B	3757
LCSD 880-3757/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3757

GC Semi VOA

Analysis Batch: 3762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-751-1	FS03A	Total/NA	Solid	8015B NM	3764
MB 880-3764/1-A	Method Blank	Total/NA	Solid	8015B NM	3764
LCS 880-3764/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3764
LCSD 880-3764/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3764

Prep Batch: 3764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-751-1	FS03A	Total/NA	Solid	8015NM Prep	
MB 880-3764/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3764/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3764/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-751-1	FS03A	Soluble	Solid	DI Leach	
MB 880-3747/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3747/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3747/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-751-1	FS03A	Soluble	Solid	300.0	3747
MB 880-3747/1-A	Method Blank	Soluble	Solid	300.0	3747
LCS 880-3747/2-A	Lab Control Sample	Soluble	Solid	300.0	3747
LCSD 880-3747/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3747

Lab Chronicle

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

Client Sample ID: FS03A

Date Collected: 06/02/21 10:04
Date Received: 06/02/21 11:33

Lab Sample ID: 890-751-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3757	06/03/21 08:59	KL	XEN MID
Total/NA	Analysis	8021B		1	3760	06/03/21 13:17	KL	XEN MID
Total/NA	Prep	8015NM Prep			3764	06/03/21 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3762	06/03/21 15:44	AM	XEN MID
Soluble	Leach	DI Leach			3747	06/03/21 11:48	CH	XEN MID
Soluble	Analysis	300.0		1	3774	06/03/21 17:52	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: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

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	T104704400-20-21	06-30-21

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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: ADU CTB

Job ID: 890-751-1
SDG: TE012921047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-751-1	FS03A	Solid	06/02/21 10:04	06/02/21 11:33	- 2.5

Page 266 of 270

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

6/3/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, dan.moir@wsp.com	

Work Order Comments

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

Project Name:	ADU CTB	Turn Around	
Project Number:	TE012921047	Routine ☐	
P.O. Number:	Eddy	Rush: 24hr	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.6 / 2.1	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 8021)	Chloride (EPA 300.0)
FS03A	s	6/2/2021	10:04	2.5'	1	x	x	x

890-751 Chain of Custody

Work Order Notes

Incident ID: NAPP2108543210
Cost Center: 1056011001

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		6/2/21 11:33	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Received by OCD: 6/16/2021 9:31:55 AM

Released to Imaging: 9/16/2021 2:55:52 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: 890-246 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 #: 890-751-1
Address: 1211 W Florida Ave	Due Date Requested: 6/3/2021			
City: Midland	TAT Requested (days):			
State Zip: TX 79701	PO #:			
Phone: 432-704-5440(Tel)	WO #:			
Email				
Project Name: ADU CTB	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 Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FS03A (890-751-1)	6/2/21	10 04 Mountain		Solid			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: Gabriela Ordonez	Date/Time: 6/2/2021	Company	Received by:	Date/Time: 6-3-21 11:00am	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: 11/01/2020

Page 267 of 270
Received by OCD: 6/16/2021 9:31:55 AM
6/3/2021
Page 16 of 18
Released to Imaging: 9/16/2021 2:55:52 PM

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-751-1
SDG Number: TE012921047

Login Number: 751
List Number: 1
Creator: Ordonez, Gabby

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: 890-751-1
SDG Number: TE012921047

Login Number: 751
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/03/21 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	
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	

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 32302

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
	Action Number: 32302
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests to complete final remediation of 2 residual impacted soil areas that were left in place immediately surrounding and beneath active production equipment (Figure 4). Remediation will take place during future major deconstruction/alteration and/or abandonment, whichever occurs first. At this time, OCD approves the request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. This is a federal site and will require like approval from BLM.	9/16/2021