State of New Mexico
Oil Conservation Division

Incident ID	nAPP2101331137
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: 05/25/2021

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

OCD Only

Received by: Date:

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

Signature: Jennifer Nobui Date: 06/28/2022

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

May 28, 2021

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

RE: Deferral Request
Goldenchild CTB
Incident Numbers nAPP2035256230, nAPP2101331137, nAPP2101335437, nAPP2102237559
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 Goldenchild Central Tank Battery (CTB) (Site) in Unit P, Section 6, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following four flare fire release events at the Site. Based on the excavation activities and soil sample laboratory analytical results, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Numbers nAPP2035256230, nAPP2101331137, nAPP2101335437, and nAPP2102237559 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On December 4, 2020, the low-pressure flare malfunctioned, resulting in the release of approximately 0.04 barrels (bbls) of crude oil through the flare stack which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on December 4, 2020. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted on December 17, 2020 and the release was assigned Incident Number nAPP2035256230.

On January 7, 2021, the low-pressure flare malfunctioned due to the jatco pot, resulting in the release of approximately 0.03 bbls of condensate through the flare stack which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO reported the release to the NMOCD via email on January 7, 2021. A Form C-141 was submitted on January 13, 2021 and the release was assigned Incident Number nAPP2101331137.

On January 8, 2021, a flare stack malfunctioned, resulting in the release of approximately 0.12 bbls of condensate onto the surface of the well pad. The fire extinguished itself and there were no standing fluids to recover. XTO reported the release to the NMOCD via email on January 8, 2021. A Form C-141 was submitted on January 13, 2021 and the release was assigned Incident Number nAPP2101335437.

On January 15, 2021, the low-pressure flare malfunctioned, resulting in the release of approximately 0.11 bbls of condensate through the flare stack which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO reported the release to the NMOCD via email on January 15, 2021. A Form C-141 was submitted on January 22, 2021 and the release was assigned Incident Number nAPP2102237559.

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 less than 50 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During November 2020, WSP installed a soil boring (C-4493) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4493 was drilled to a depth of 57 feet bgs. A WSP geologist logged and described soils continuously. The well record and log are included in Attachment 1. The location of the borehole is approximately 0.16 miles south of the Site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period, it was confirmed that groundwater beneath the Site is 39 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing or significant watercourse to the Site is the Pecos River, located approximately 1,895 feet west 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): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On February 1, 2021, WSP personnel visited the Site to evaluate the release extents based on information provided on the Form C-141s and visual observations. The release extents from the four flare fires overlapped and were evaluated simultaneously. WSP personnel collected three preliminary assessment soil samples (SS01 through SS03) within the release extents from a depth of approximately 0.5 feet bgs to assess the lateral extent of the releases. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The combined release extents 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 Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics, TPH-diesel range organics, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil sample SS01 indicated TPH and chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS02 and SS03 indicated chloride 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 AND DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

Between March 12, 2021 and April 22, 2021, WSP personnel returned to the Site to oversee excavation and delineation activities as indicated by visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples.

Initial Excavation Activities

Excavation activities were performed to remove the surficial staining in the release footprint and excavate the impacted soil in the areas surrounding preliminary soil samples SS01 through SS02. Excavation activities were performed using track-mounted backhoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride

utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 3.

Following removal of impacted soil to the extent possible, 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 placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW03 were collected from the sidewalls of the excavations from depths ranging from the ground surface to 3 feet bgs. Composite soil samples FS01 through FS05 were collected from the floor of the excavations from depths ranging from 2 feet to 3 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extents and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for excavation samples SW01, SW02, and FS01 through FS05, collected from the final excavation extents, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for sidewall sample SW03 indicated that chloride concentrations exceeded the Closure Criteria. Sidewall sample SW03 was collected adjacent to an anchor point that supports the flare stack. Further excavation of impacted soil beyond the excavation sidewall sample SW03 was limited by the anchor point. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any on-site production equipment, pipelines, or flare anchors and a 10-foot radius of active flare stacks. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the production equipment, pipelines, or flare stacks. This policy was enforced where impacted soil was identified within 2 feet of the flare anchor point and 10 feet of the active flare stack.

The combined excavation extents measured approximately 1,115 square feet. A total of approximately 110 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

Delineation and Final Excavation Activities

Between March 12, 2021 and April 22, 2021, WSP personnel were at the Site to oversee delineation activities. The delineation activities were completed in coordination with excavation activities to define the lateral and vertical extent of impacted soil left in-place within 2 feet of the flare anchor point and 10 feet of the active flare stack.

Four potholes (PH01 through PH04) were advanced via backhoe within and around the release extent to assess the lateral and vertical extent of impacted soil. Potholes PH01 through PH04 were advanced to a depth of 3 feet bgs. Delineation soil samples were collected from each

pothole from depths of 1 foot and 3 feet bgs. A concrete barrier was located north of the flare stacks, which prevented off pad impacts from the fires and provided additional delineation to the north (reference photos 4 and 6 in Attachment 3).

Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. The delineation soil samples were collected, handled, and analyzed as described above. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation pothole soil sample locations are depicted on Figure 4.

Laboratory analytical results for delineation soil samples PH02/PH02A, PH03/PH03A, and PH04/PH04A, collected from depths ranging from 1-foot to 3 feet bgs, indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and defined the lateral and vertical extent of the impacted soil left in-place.

Laboratory analytical results for delineation soil sample PH01A, collected from pothole PH01 at 3 feet bgs, indicated that chloride concentrations exceeded the Closure Criteria. Based on the elevated chloride result in pothole PH01, the excavation was extended. Additional soil was removed from the area around pothole PH01 and subsequent excavation sidewall sample SW04 and floor sample FS06 were collected from the final excavation extent. Laboratory analytical results for excavation samples SW04 and FS06 were compliant with the Closure Criteria. The final excavation extents and excavation soil sample locations are presented on Figure 3. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4. After completion of confirmation sampling, the excavation areas were backfilled.

DEFERRAL REQUEST

Approximately 110 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place immediately surrounding an active flare stack and flare anchors for compliance with XTO safety policy. Laboratory analytical results for excavation sidewall sample SW03 indicated that soil with chloride concentrations exceeding the Closure Criteria was left in place. Additional excavation was limited by active flares stacks, flare anchors, and overhead anchor lines (reference photos 3 through 6 in Attachment 3).

The impacted soil remaining in place is delineated vertically and laterally by excavation soil samples SW01, SW02, and FS01 through FS06, collected from the sidewalls and floor of the final excavation extents, delineation soil samples PH02/PH02A through PH04/PH04A, and the concrete barrier north of the flare stack. An estimated 67 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 area and associated delineation samples are identified on Figure 5.

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. The majority of the released fluids from the four release events were consumed by fire or removed during excavation activities. The impacted soil remaining in place is limited to the area immediately adjacent to the active flare stack and anchor points and no saturated soil remains in-place. XTO requests deferral of final remediation for Incident Numbers nAPP2035256230, nAPP2101331137, nAPP2101335437, and nAPP2102237559.

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

Sincerely,

WSP USA Inc.

Kalei Jennings
Associate Consultant

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

cc: Kyle Littrell, XTO
Ryan Mann, New Mexico State Land Office

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Delineation Soil Sample Locations
Figure 5	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

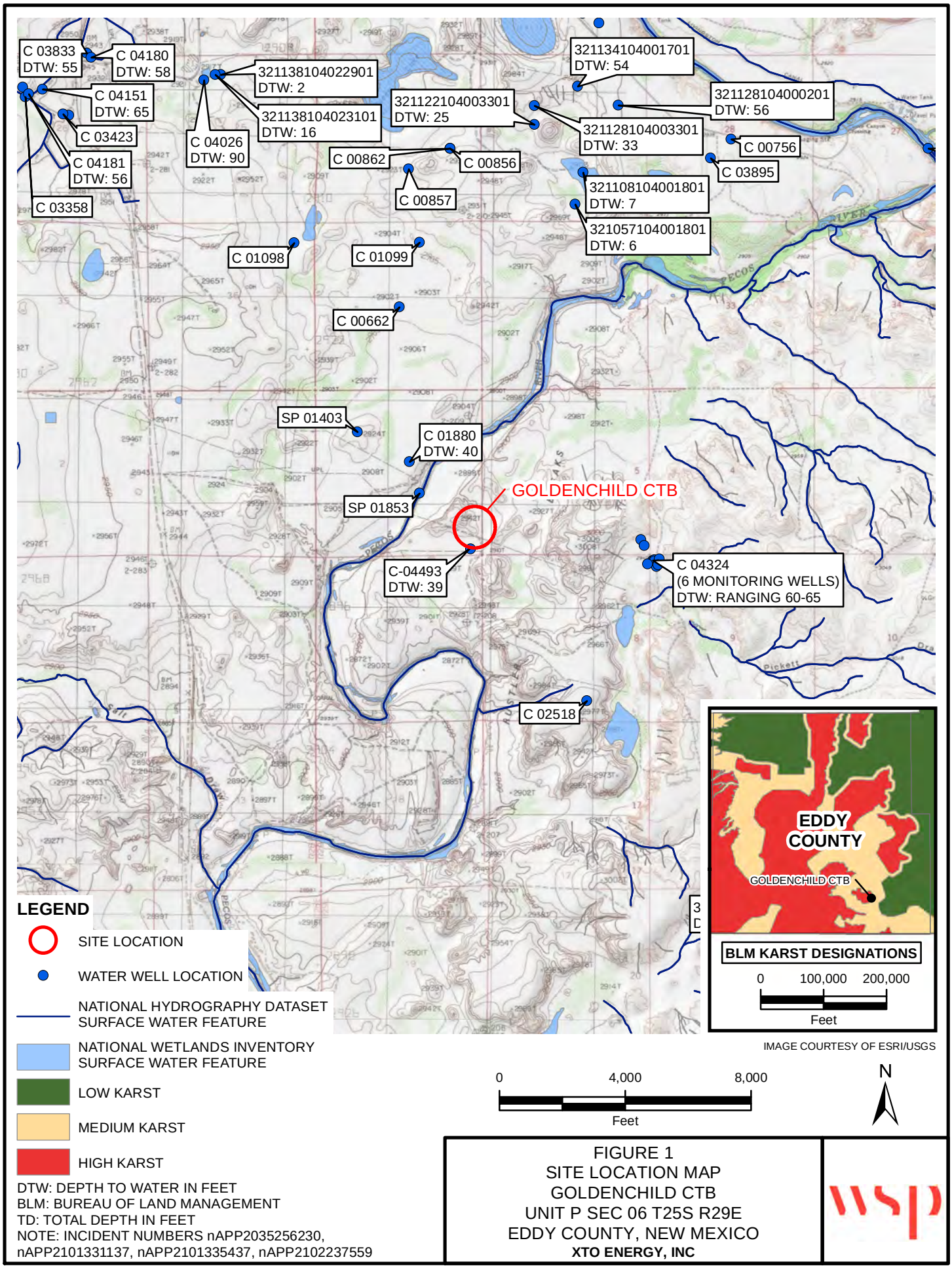

IMAGE COURTESY OF ESRI/USGS

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBERS nAPP2035256230, nAPP2101331137, nAPP2101335437, nAPP2102237559

FIGURE 1
SITE LOCATION MAP
GOLDENCHILD CTB
UNIT P SEC 06 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921018_GOLDENCHILD CTB\012921018_FIG01_SL_RECEPTOR_2021.mxd

LEGEND

- RELEASE LOCATION
- ANCHOR POINT
- FLARE STACK
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- GAS LINE
- CONCRETE BARRIER
- RELEASE EXTENT
- INFRASTRUCTURE

NOTE: INCIDENT NUMBER nAPP2035256230, nAPP2101331137, nAPP2101335437, AND nAPP2102237559
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
GOLDENCHILD CTB
UNIT P SEC 06 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921018_GOLDENCHILD CTB\012921018_FIG02_PRELIMINARY_2021.mxd

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
GOLDENCHILD CTB
UNIT P SEC 06 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921018_GOLDENCHILD CTB\012921018_FIG03_EXCAVATION_2021.mxd

LEGEND

- RELEASE LOCATION
- ANCHOR POINT
- FLARE STACK
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- DELINEATION SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- CONCRETE BARRIER
- EXCAVATION EXTENT
- INFRASTRUCTURE

NOTE: INCIDENT NUMBER nAPP2035256230, nAPP2101331137, nAPP2101335437, AND nAPP2102237559
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
GOLDENCHILD CTB
UNIT P SEC 06 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921018_GOLDENCHILD CTB\012921018_FIG04_DELINEATION_2021.mxd

NOTE: INCIDENT NUMBER nAPP2035256230, nAPP2101331137, nAPP2101335437, AND nAPP2102237559
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 5
DEFERRAL AREA
GOLDENCHILD CTB
UNIT P SEC 06 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921018_GOLDENCHILD CTB\012921018_FIG05_DEFERRAL_2021.mxd

TABLES

Table 1

Soil Analytical Results
Goldenchild CTB
Incident Numbers nAPP2035256230, nAPP2101331137, nAPP2101335437, and nAPP2102237559
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	NE	**100**	**600**
Surface Samples										
SS01	02/01/2021	0.5	<0.00202	0.0139	<50.0	336	105	441	**441**	**3,830**
SS02	02/01/2021	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	**2,010**
SS03	02/01/2021	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	**2,580**
Delineation Samples										
PH01	03/30/2021	1	<0.00202	<0.00202	67.8	<50.0	<50.0	67.8	67.8	595
PH01A	03/30/2021	3	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	**685**
PH02	03/30/2021	1	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	554
PH02A	03/30/2021	3	<0.00200	<0.00200	<49.7	<49.7	<49.7	<49.7	<49.7	600
PH03	03/30/2021	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	485
PH03A	03/30/2021	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	234
PH04	04/22/2021	1	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	16.7
PH04A	04/22/2021	3	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	14.2
Excavation Floor Samples										
FS01	03/12/2021	2	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	202
FS02	03/12/2021	2	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	432
FS03	03/12/2021	3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	45.2
FS04	03/12/2021	3	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	45.1
FS05	03/12/2021	3	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	31.9
FS06	04/22/2021	4	<0.00199	0.0221	<50.0	<50.0	<50.0	<50.0	<50.0	21.5

Table 1

Soil Analytical Results
Goldenchild CTB
Incident Numbers nAPP2035256230, nAPP2101331137, nAPP2101335437, and nAPP2102237559
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	NE	**100**	**600**
Excavation Sidewall Samples										
SW01	03/12/2021	0 - 2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	390
SW02	03/12/2021	0 - 3	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	236
SW03	03/12/2021	0 - 3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	**1,430**
SW04	04/22/2021	0 - 4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	21.0

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
Text impacted soil was excavated

ATTACHMENT 1: REFERENCED WELL RECORD

Atkins
ENGINEERING ASSOCIATES INC.

2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

12/16/2020

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4493 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4493 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

APPLICANT COPY

Lucas Middleton

OSE DII DEC 17 2020 PM1:54

Enclosures: as noted above

OSE DIT DEC 17 2020 PM1:54

PLUGGING RECORD

APPLICATION COPY

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4493-POD1

Well owner: XTO ENERGY (Kyle Littrell) Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge

4) Date well plugging began: 11/23/2020 Date well plugging concluded: 11/23/2020

5) GPS Well Location: Latitude: 32 deg, 9 min, 9.09 sec
Longitude: -104 deg, 0 min, 58.81 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 40 ft below ground level (bgl), by the following manner: weighted tape

7) Static water level measured at initiation of plugging: 37.05 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 11/12/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Version: September 8, 2009
Page 1 of 2

OSE DII DEC 17 2020 PM1:54

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

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-40' Portland Type I/II Neat Cement	Approx. 124 gallons	117 gallons	Augers	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

12/15/2020

Date

Version: September 8, 2009
Page 2 of 2

2020-12-15_C-4493_POD1_OSE_Well Record and Log_CAttle-forsign

Final Audit Report 2020-12-15

Created:	2020-12-15
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAnq4xUbZe1ADExmp8BGfUeuw8WVrl_oBj

"2020-12-15_C-4493_POD1_OSE_Well Record and Log_CAttle-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2020-12-15 - 8:38:23 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2020-12-15 - 8:39:02 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2020-12-15 - 11:11:04 PM GMT- IP address: 74.50.153.115

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2020-12-15 - 11:12:51 PM GMT - Time Source: server- IP address: 74.50.153.115

Agreement completed.
2020-12-15 - 11:12:51 PM GMT

Adobe Sign

APPLICANT COPY

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT DEC 17 2020 PM 1:54

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4493

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	9'	9.09"	N
	LONGITUDE	-104°	0'	58.81"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE NE SE Sec. 6 T25S R29E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
11/18/2020	11/18/2020	temporary well material	57	±39

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 37.05

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	57	±8.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

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4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Caliche, Poorly consolidated, with gravel, Off -White -Light Brown	Y ✓ N	
1	2	1	Sand, Very fine- grained,poorly-graded, with caliche ,Brown	Y ✓ N	
2	14	12	Caliche, Moderately consolidated, with gravel, Off -White -Light Brown, Moist	Y ✓ N	
14	29	15	Siltstone, poorly consolidated, low plasticity, cohesive, with sand, Brown, Moist	Y ✓ N	
29	57	28	Silty Sandstone, Very fine-grained, well consolidated, trace pebbles, wet	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring plugged using Portland Type I/II neat cement 94 lbs sack per 5.2 gallons of water.
Logs adapted from LTE on-site geologist.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 12/15/20

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

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LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH01	Date: 3/30/2021
Site Name: Goldenchild	
RP or Incident Number: nAPP2035256230, nAPP2101331137,	
WSP Job Number: TE012921018	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By WM	Method: Backhoe		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	442	0.3	N	PH01	1'	0–1		Caliche, no stain, no odor
	582	0.3	N	PH01A	3'	2–3		Caliche, no stain, no odor
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH02	Date: 3/30/2021
Site Name: Goldenchild	
RP or Incident Number: nAPP2035256230, nAPP2101331137,	
WSP Job Number: TE012921018	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By WM	Method: Backhoe		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	442	0.7	N	PH02	1'	1		Caliche, no stain, no odor
	464	0.7	N	PH02A	3'	3		Caliche, no stain, no odor

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH03	Date: 3/30/2021
Site Name: Goldenchild	
RP or Incident Number: nAPP2035256230, nAPP2101331137,	
WSP Job Number: TE012921018	
Logged By WM	Method: Backhoe
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter:	Total Depth: 3'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	364	1.9	N	PH03	1'	0–1		Caliche, no stain, no odor
	296	1.9	N	PH03A	3'	2–3		Caliche, no stain, no odor
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH04	Date: 4/22/2021
Site Name: Goldenchild	
RP or Incident Number: nAPP2035256230, nAPP2101331137,	
WSP Job Number: TE012921018	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By EN	Method: Backhoe		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	296	0.0	N	PH04	1'	1		Caliche, no stain, no odor
	<180	0.0	N	PH04A	3'	3		Caliche, no stain, no odor

ATTACHMENT 3: PHOTOGRAPHIC LOG

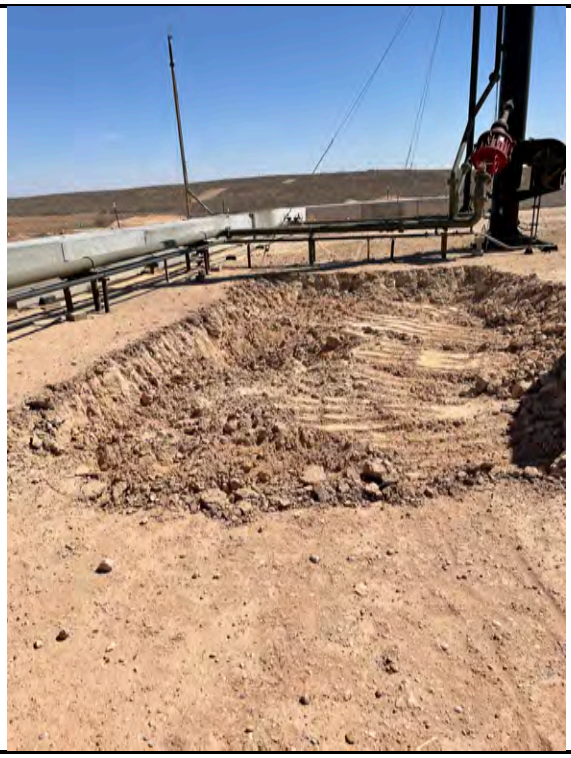
PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Goldenchild CTB nAPP2035256230, nAPP2101331137, nAPP2101335437, nAPP2102237559	Eddy County, New Mexico

Photo No.	Date
1	February 2, 2021

View of staining on pad facing northeast near low pressure flare

Photo No.	Date
2	March 10, 2021

View of excavation activities at FS01 and FS02 location.



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Goldenchild CTB nAPP2035256230, nAPP2101331137, nAPP2101335437, nAPP2102237559	Eddy County, New Mexico

Photo No.	Date
3	March 12, 2021

View of excavation facing east

Photo No.	Date
4	March 30, 2021

View of delineation pothole sample PH02 between flare stacks

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Goldenchild CTB nAPP2035256230, nAPP2101331137, nAPP2101335437, nAPP2102237559	Eddy County, New Mexico

Photo No.	Date
5	March 30, 2021

View of delineation pothole sample PH03

Photo No.	Date
6	March 30, 2021

View of area near excavation floor samples FS01 and FS02

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Goldenchild CTB nAPP2035256230, nAPP2101331137, nAPP2101335437, nAPP2102237559	Eddy County, New Mexico

Photo No.	Date
7	March 30, 2021

View of deferral area around the flare stack and adjacent to the anchor points.

Photo No.	Date
8	April 22, 2021

Backfill activities completed at the Site

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-110-1
Client Project/Site: Goldenchlid CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
2/8/2021 6:56:14 PM

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

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

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

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

Laboratory Job ID: 890-110-1

Table of Contents

Definitions/Glossary

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

Job ID: 890-110-1

Qualifiers

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

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

Job ID: 890-110-1

Job ID: 890-110-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-110-1

Receipt
The samples were received on 2/1/2021 12:11 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 890-99 and analytical batch 890-107 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Detection Summary

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

Job ID: 890-110-1

Client Sample ID: SS01 @ 0.3' Lab Sample ID: 890-110-1

Sample Analysis Not Complete.

Client Sample ID: SS02 @ 0.3' Lab Sample ID: 890-110-2

Sample Analysis Not Complete.

Client Sample ID: SS03 @ 0.3' Lab Sample ID: 890-110-3

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Client Sample Results

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

Job ID: 890-110-1

Client Sample ID: SS01 @ 0.3'

Lab Sample ID: 890-110-1
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:36	1
Toluene	**0.00504**		0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:36	1
Total BTEX	**0.0139**		0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:36	1
Xylenes, Total	**0.00881**		0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:36	1
m,p-Xylenes	**0.00616**		0.00403		mg/Kg		02/01/21 16:19	02/03/21 02:36	1
o-Xylene	**0.00265**		0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*97*		*70 - 130*	*02/01/21 16:19*	*02/03/21 02:36*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/01/21 16:19*	*02/03/21 02:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3830**		49.5		mg/Kg			02/02/21 12:10	5

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	**336**		50.0		mg/kg		02/03/21 12:00	02/03/21 18:59	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 18:59	1
Motor Oil Range Hydrocarbons (MRO)	**105**		50.0		mg/kg		02/03/21 12:00	02/03/21 18:59	1
Total TPH	**441**		50.0		mg/kg		02/03/21 12:00	02/03/21 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 135*	*02/03/21 12:00*	*02/03/21 18:59*	*1*
o-Terphenyl	*111*		*70 - 135*	*02/03/21 12:00*	*02/03/21 18:59*	*1*

Client Sample ID: SS02 @ 0.3'

Lab Sample ID: 890-110-2
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:59	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:59	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:59	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:59	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/01/21 16:19	02/03/21 02:59	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*99*		*70 - 130*	*02/01/21 16:19*	*02/03/21 02:59*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/01/21 16:19*	*02/03/21 02:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2010**		49.5		mg/Kg			02/02/21 12:16	5

Client Sample Results

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

Job ID: 890-110-1

Client Sample ID: SS02 @ 0.3'

Lab Sample ID: 890-110-2
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:20	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:20	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:20	1
Total TPH	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 135*	*02/03/21 12:00*	*02/03/21 19:20*	*1*
o-Terphenyl	*109*		*70 - 135*	*02/03/21 12:00*	*02/03/21 19:20*	*1*

Client Sample ID: SS03 @ 0.3'

Lab Sample ID: 890-110-3
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 03:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 03:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 03:21	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 03:21	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 03:21	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/01/21 16:19	02/03/21 03:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/01/21 16:19	02/03/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*99*		*70 - 130*	*02/01/21 16:19*	*02/03/21 03:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/01/21 16:19*	*02/03/21 03:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2580**		49.6		mg/Kg			02/02/21 12:21	5

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:42	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:42	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:42	1
Total TPH	<50.0		50.0		mg/kg		02/03/21 12:00	02/03/21 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 135*	*02/03/21 12:00*	*02/03/21 19:42*	*1*
o-Terphenyl	*108*		*70 - 135*	*02/03/21 12:00*	*02/03/21 19:42*	*1*

Surrogate Summary

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

Job ID: 890-110-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DFBZ1	BFB1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-110-1	SS01 @ 0.3'	97	97
890-110-2	SS02 @ 0.3'	99	100
890-110-3	SS03 @ 0.3'	99	103
LCS 890-89/2-A	Lab Control Sample	93	98
LCSD 890-89/3-A	Lab Control Sample Dup	96	94
MB 890-89/1-A	Method Blank	99	99

Surrogate Legend

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

Method: SW8015-MOD - SW846 8015B TPH ORO

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO	OTPH
Lab Sample ID	Client Sample ID	(70-135)	(70-135)
890-110-1	SS01 @ 0.3'	103	111
890-110-2	SS02 @ 0.3'	102	109
890-110-3	SS03 @ 0.3'	98	108

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

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

Job ID: 890-110-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-89/1-A
Matrix: Solid
Analysis Batch: 113

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 89

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/01/21 16:19	02/02/21 19:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/01/21 16:19	02/02/21 19:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/01/21 16:19	02/02/21 19:48	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/01/21 16:19	02/02/21 19:48	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/01/21 16:19	02/02/21 19:48	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/01/21 16:19	02/02/21 19:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/01/21 16:19	02/02/21 19:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*99*		*70 - 130*	*02/01/21 16:19*	*02/02/21 19:48*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/01/21 16:19*	*02/02/21 19:48*	*1*

Lab Sample ID: LCS 890-89/2-A
Matrix: Solid
Analysis Batch: 113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 89

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09618		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09901		mg/Kg		99	71 - 129		
Toluene			0.100	0.09831		mg/Kg		98	70 - 130		
m,p-Xylenes			0.200	0.2015		mg/Kg		101	70 - 135		
o-Xylene			0.100	0.1002		mg/Kg		100	71 - 133		

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

Lab Sample ID: LCSD 890-89/3-A
Matrix: Solid
Analysis Batch: 113

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 89

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09257		mg/Kg		93	70 - 130	4	35
Ethylbenzene			0.100	0.09159		mg/Kg		92	71 - 129	8	35
Toluene			0.100	0.09376		mg/Kg		94	70 - 130	5	35
m,p-Xylenes			0.200	0.1857		mg/Kg		93	70 - 135	8	35
o-Xylene			0.100	0.09487		mg/Kg		95	71 - 133	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

QC Sample Results

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

Job ID: 890-110-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-99/11-A
Matrix: Solid
Analysis Batch: 107

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.96	U	9.96		mg/Kg			02/02/21 10:11	1

Lab Sample ID: LCS 890-99/12-A
Matrix: Solid
Analysis Batch: 107

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			202	202.4		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 890-99/13-A
Matrix: Solid
Analysis Batch: 107

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			199	194.1		mg/Kg		98	90 - 110	4	20

Lab Sample ID: 890-110-3 MS
Matrix: Solid
Analysis Batch: 107

Client Sample ID: SS03 @ 0.3'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2580		101	2811	4	mg/Kg		230	90 - 110		

Lab Sample ID: 890-110-3 MSD
Matrix: Solid
Analysis Batch: 107

Client Sample ID: SS03 @ 0.3'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2580		101	2752	4	mg/Kg		171	90 - 110	2	20

Lab Sample ID: MB 890-138/1-A
Matrix: Solid
Analysis Batch: 130

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.96	U	9.96		mg/Kg			02/03/21 11:27	1

Lab Sample ID: LCS 890-138/2-A
Matrix: Solid
Analysis Batch: 130

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			505	494.6		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 890-138/3-A
Matrix: Solid
Analysis Batch: 130

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			497	481.7		mg/Kg		97	90 - 110	3	20

QC Sample Results

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

Job ID: 890-110-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-110-3 MS
Matrix: Solid
Analysis Batch: 130

Client Sample ID: SS03 @ 0.3'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2610		503	2979	4	mg/Kg		74	90 - 110

Lab Sample ID: 890-110-3 MSD
Matrix: Solid
Analysis Batch: 130

Client Sample ID: SS03 @ 0.3'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2610		504	2957	4	mg/Kg		69	90 - 110	1	20

Method: SW8015-MOD - SW846 8015B TPH ORO

Lab Sample ID: 7720753-1-BLK
Matrix: SOIL
Analysis Batch: 3149994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3149994_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/03/21 12:00	02/03/21 11:40	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/03/21 12:00	02/03/21 11:40	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/03/21 12:00	02/03/21 11:40	1

Lab Sample ID: 7720753-1-BKS
Matrix: SOIL
Analysis Batch: 3149994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3149994_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	871		mg/kg		87	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	866		mg/kg		87	70 - 135

Lab Sample ID: 7720753-1-BSD
Matrix: SOIL
Analysis Batch: 3149994

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3149994_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1070		mg/kg		107	70 - 135	21	20
Gasoline Range Hydrocarbons (GRO)	1000	1080		mg/kg		108	70 - 135	22	20

QC Association Summary

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

Job ID: 890-110-1

GC VOA

Prep Batch: 89

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-110-1	SS01 @ 0.3'	Total/NA	Solid	5030C	
890-110-2	SS02 @ 0.3'	Total/NA	Solid	5030C	
890-110-3	SS03 @ 0.3'	Total/NA	Solid	5030C	
MB 890-89/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-89/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-89/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-110-1	SS01 @ 0.3'	Total/NA	Solid	8021B	89
890-110-2	SS02 @ 0.3'	Total/NA	Solid	8021B	89
890-110-3	SS03 @ 0.3'	Total/NA	Solid	8021B	89
MB 890-89/1-A	Method Blank	Total/NA	Solid	8021B	89
LCS 890-89/2-A	Lab Control Sample	Total/NA	Solid	8021B	89
LCSD 890-89/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	89

HPLC/IC

Leach Batch: 99

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-110-1	SS01 @ 0.3'	Soluble	Solid	DI Leach	
890-110-2	SS02 @ 0.3'	Soluble	Solid	DI Leach	
890-110-3	SS03 @ 0.3'	Soluble	Solid	DI Leach	
MB 890-99/11-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-99/12-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-99/13-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-110-3 MS	SS03 @ 0.3'	Soluble	Solid	DI Leach	
890-110-3 MSD	SS03 @ 0.3'	Soluble	Solid	DI Leach	

Analysis Batch: 107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-110-1	SS01 @ 0.3'	Soluble	Solid	300.0	99
890-110-2	SS02 @ 0.3'	Soluble	Solid	300.0	99
890-110-3	SS03 @ 0.3'	Soluble	Solid	300.0	99
MB 890-99/11-A	Method Blank	Soluble	Solid	300.0	99
LCS 890-99/12-A	Lab Control Sample	Soluble	Solid	300.0	99
LCSD 890-99/13-A	Lab Control Sample Dup	Soluble	Solid	300.0	99
890-110-3 MS	SS03 @ 0.3'	Soluble	Solid	300.0	99
890-110-3 MSD	SS03 @ 0.3'	Soluble	Solid	300.0	99

Analysis Batch: 130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 890-138/1-A	Method Blank	Soluble	Solid	300.0	138
LCS 890-138/2-A	Lab Control Sample	Soluble	Solid	300.0	138
LCSD 890-138/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	138
890-110-3 MS	SS03 @ 0.3'	Soluble	Solid	300.0	138
890-110-3 MSD	SS03 @ 0.3'	Soluble	Solid	300.0	138

Leach Batch: 138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 890-138/1-A	Method Blank	Soluble	Solid	DI Leach	

QC Association Summary

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

Job ID: 890-110-1

HPLC/IC (Continued)

Leach Batch: 138 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 890-138/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-138/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-110-3 MS	SS03 @ 0.3'	Soluble	Solid	DI Leach	
890-110-3 MSD	SS03 @ 0.3'	Soluble	Solid	DI Leach	

Subcontract

Analysis Batch: 3149994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-110-1	SS01 @ 0.3'	Total/NA	Solid	SW8015-MOD	3149994_P
890-110-2	SS02 @ 0.3'	Total/NA	Solid	SW8015-MOD	3149994_P
890-110-3	SS03 @ 0.3'	Total/NA	Solid	SW8015-MOD	3149994_P
7720753-1-BLK	Method Blank	Total/NA	SOIL	SW8015-MOD	3149994_P
7720753-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015-MOD	3149994_P
7720753-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015-MOD	3149994_P

Prep Batch: 3149994_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-110-1	SS01 @ 0.3'	Total/NA	Solid	SW8015P	
890-110-2	SS02 @ 0.3'	Total/NA	Solid	SW8015P	
890-110-3	SS03 @ 0.3'	Total/NA	Solid	SW8015P	
7720753-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7720753-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7720753-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

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

Job ID: 890-110-1

Client Sample ID: SS01 @ 0.3'

Lab Sample ID: 890-110-1
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			89	02/01/21 16:19	MC	XC
Total/NA	Analysis	8021B		1	113	02/03/21 02:36	MC	XC
Soluble	Leach	DI Leach			99	02/01/21 17:00	MC	XC
Soluble	Analysis	300.0		5	107	02/02/21 12:10	MC	XC
Total/NA	Prep	SW8015P		1	3149994_P	02/03/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3149994	02/03/21 18:59	ARM	XM

Client Sample ID: SS02 @ 0.3'

Lab Sample ID: 890-110-2
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			89	02/01/21 16:19	MC	XC
Total/NA	Analysis	8021B		1	113	02/03/21 02:59	MC	XC
Soluble	Leach	DI Leach			99	02/01/21 17:00	MC	XC
Soluble	Analysis	300.0		5	107	02/02/21 12:16	MC	XC
Total/NA	Prep	SW8015P		1	3149994_P	02/03/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3149994	02/03/21 19:20	ARM	XM

Client Sample ID: SS03 @ 0.3'

Lab Sample ID: 890-110-3
Matrix: Solid
Date Collected: 02/01/21 00:00
Date Received: 02/01/21 12:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			89	02/01/21 16:19	MC	XC
Total/NA	Analysis	8021B		1	113	02/03/21 03:21	MC	XC
Soluble	Leach	DI Leach			99	02/01/21 17:00	MC	XC
Soluble	Analysis	300.0		5	107	02/02/21 12:21	MC	XC
Total/NA	Prep	SW8015P		1	3149994_P	02/03/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3149994	02/03/21 19:42	ARM	XM

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Accreditation/Certification Summary

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

Job ID: 890-110-1

Laboratory: Eurofins Xenco, Carlsbad

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	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
8021B	5030C	Solid	Total BTEX

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

Method Summary

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

Job ID: 890-110-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XC
300.0	Anions, Ion Chromatography	MCAWW	XC
5030C	Purge and Trap	SW846	XC
DI Leach	Deionized Water Leaching Procedure	ASTM	XC

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:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Sample Summary

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

Job ID: 890-110-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-110-1	SS01 @ 0.3'	Solid	02/01/21 00:00	02/01/21 12:11	
890-110-2	SS02 @ 0.3'	Solid	02/01/21 00:00	02/01/21 12:11	
890-110-3	SS03 @ 0.3'	Solid	02/01/21 00:00	02/01/21 12:11	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

XENCO LABORATORIES

Chain of Custody

Work Order No: ____________

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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2/8/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	Goldenchild CTB Grd	Turn Around	
Project Number:	TE012421018	Routine	☑
P.O. Number:	~~Spill date: 12/14/20, 1/7/21, 1/8/21~~ 1/15/21	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	6.0 / ~~6~~6.8	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:	3

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
SS01	S	2/1/21		0.3'	1	X	X	X	discrete
SS02	↓	↓		↓	↓	↓	↓	↓	↓
SS03	↓	↓		↓	↓	↓	↓	↓	↓

Work Order Notes

CC# 1055751001
Spill dates:
12/14/20
1/7/21
1/8/21
1/15/21

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

890-110 Chain of Custody

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	[signature]	[signature]	2-1-21 1211	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc. Job Number: 890-110-1

Login Number: 110 **List Source: Eurofins Carlsbad**
List Number: 1
Creator: Clifton, Cloe

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-335-1
Laboratory Sample Delivery Group: TE012921018
Client Project/Site: Golden Child CTB

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

Attn: Dan Moir

JKramer

Authorized for release by:
3/18/2021 4:14:27 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Laboratory Job ID: 890-335-1
SDG: TE012921018

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-335-1
Project/Site: Golden Child CTB SDG: TE012921018

Qualifiers

Subcontract

Qualifier	Qualifier Description
F	RPD exceeded lab control limits.
U	Analyte was not detected.
X	MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference

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: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Job ID: 890-335-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-335-1

Receipt
The samples were received on 3/12/2021 2:20 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 was 0.4º C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SW01 (890-335-1), SW02 (890-335-2), SW03 (890-335-3), FS01 (890-335-4), FS02 (890-335-5), FS03 (890-335-6), FS04 (890-335-7) and FS05 (890-335-8).

Client Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: SW01

Date Collected: 03/12/21 08:25
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-1
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U X F	0.00199		mg/kg		03/15/21 09:00	03/15/21 14:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 14:50	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/15/21 09:00	03/15/21 14:50	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 14:50	1
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 14:50	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 14:50	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*101*		*70 - 130*	*03/15/21 09:00*	*03/15/21 14:50*	*1*
4-Bromofluorobenzene	*114*		*70 - 130*	*03/15/21 09:00*	*03/15/21 14:50*	*1*

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**390**		5.00		mg/kg		03/15/21 14:45	03/15/21 21:46	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 11:49	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 11:49	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 11:49	1
Total TPH	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 135*	*03/16/21 12:00*	*03/16/21 11:49*	*1*
o-Terphenyl	*96*		*70 - 135*	*03/16/21 12:00*	*03/16/21 11:49*	*1*

Client Sample ID: SW02

Date Collected: 03/12/21 11:20
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-2
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 15:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 15:11	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/15/21 09:00	03/15/21 15:11	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 15:11	1
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 15:11	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 15:11	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*103*		*70 - 130*	*03/15/21 09:00*	*03/15/21 15:11*	*1*
4-Bromofluorobenzene	*111*		*70 - 130*	*03/15/21 09:00*	*03/15/21 15:11*	*1*

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**236**		5.02		mg/kg		03/15/21 14:45	03/15/21 21:51	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 12:53	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: SW02
Date Collected: 03/12/21 11:20
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-2
Matrix: Solid

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 12:53	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 12:53	1
Total TPH	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 135*	*03/16/21 12:00*	*03/16/21 12:53*	*1*
o-Terphenyl	*88*		*70 - 135*	*03/16/21 12:00*	*03/16/21 12:53*	*1*

Client Sample ID: SW03
Date Collected: 03/12/21 11:25
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-3
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 15:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 15:31	1
m,p-Xylenes	<0.00399	U	0.00399		mg/kg		03/15/21 09:00	03/15/21 15:31	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 15:31	1
Toluene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 15:31	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 15:31	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*105*		*70 - 130*	*03/15/21 09:00*	*03/15/21 15:31*	*1*
4-Bromofluorobenzene	*117*		*70 - 130*	*03/15/21 09:00*	*03/15/21 15:31*	*1*

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1430**		24.9		mg/kg		03/15/21 14:45	03/15/21 22:08	5

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:14	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:14	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:14	1
Total TPH	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 135*	*03/16/21 12:00*	*03/16/21 13:14*	*1*
o-Terphenyl	*91*		*70 - 135*	*03/16/21 12:00*	*03/16/21 13:14*	*1*

Client Sample ID: FS01
Date Collected: 03/12/21 08:30
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-4
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 15:51	1
Ethylbenzene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 15:51	1
m,p-Xylenes	<0.00397	U	0.00397		mg/kg		03/15/21 09:00	03/15/21 15:51	1
o-Xylene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 15:51	1
Toluene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 15:51	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: FS01
Date Collected: 03/12/21 08:30
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-4
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 15:51	1
Total Xylenes	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*105*		*70 - 130*	*03/15/21 09:00*	*03/15/21 15:51*	*1*
4-Bromofluorobenzene	*116*		*70 - 130*	*03/15/21 09:00*	*03/15/21 15:51*	*1*

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**202**		4.95		mg/kg		03/15/21 14:45	03/15/21 22:14	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:35	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:35	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:35	1
Total TPH	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 135*	*03/16/21 12:00*	*03/16/21 13:35*	*1*
o-Terphenyl	*87*		*70 - 135*	*03/16/21 12:00*	*03/16/21 13:35*	*1*

Client Sample ID: FS02
Date Collected: 03/12/21 11:15
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-5
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:12	1
m,p-Xylenes	<0.00400	U	0.00400		mg/kg		03/15/21 09:00	03/15/21 16:12	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:12	1
Toluene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:12	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:12	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*100*		*70 - 130*	*03/15/21 09:00*	*03/15/21 16:12*	*1*
4-Bromofluorobenzene	*119*		*70 - 130*	*03/15/21 09:00*	*03/15/21 16:12*	*1*

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**432**		5.03		mg/kg		03/15/21 14:45	03/15/21 22:30	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8	U	49.8		mg/kg		03/16/21 12:00	03/16/21 13:56	1
Gasoline Range Hydrocarbons (GRO)	<49.8	U	49.8		mg/kg		03/16/21 12:00	03/16/21 13:56	1
Motor Oil Range Hydrocarbons (MRO)	<49.8	U	49.8		mg/kg		03/16/21 12:00	03/16/21 13:56	1
Total TPH	<49.8	U	49.8		mg/kg		03/16/21 12:00	03/16/21 13:56	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: FS02

Date Collected: 03/12/21 11:15
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-5
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 135	03/16/21 12:00	03/16/21 13:56	1
o-Terphenyl	80		70 - 135	03/16/21 12:00	03/16/21 13:56	1

Client Sample ID: FS03

Date Collected: 03/12/21 10:50
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-6
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:32	1
m,p-Xylenes	<0.00400	U	0.00400		mg/kg		03/15/21 09:00	03/15/21 16:32	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:32	1
Toluene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:32	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:32	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130	03/15/21 09:00	03/15/21 16:32	1
4-Bromofluorobenzene	113		70 - 130	03/15/21 09:00	03/15/21 16:32	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.2		5.02		mg/kg		03/16/21 10:45	03/16/21 11:07	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 14:17	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 14:17	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 14:17	1
Total TPH	<50.0	U	50.0		mg/kg		03/16/21 12:00	03/16/21 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 135	03/16/21 12:00	03/16/21 14:17	1
o-Terphenyl	102		70 - 135	03/16/21 12:00	03/16/21 14:17	1

Client Sample ID: FS04

Date Collected: 03/12/21 10:55
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-7
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 16:53	1
Ethylbenzene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 16:53	1
m,p-Xylenes	<0.00397	U	0.00397		mg/kg		03/15/21 09:00	03/15/21 16:53	1
o-Xylene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 16:53	1
Toluene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 16:53	1
Total BTEX	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 16:53	1
Total Xylenes	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	99		70 - 130	03/15/21 09:00	03/15/21 16:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: FS04

Date Collected: 03/12/21 10:55
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-7
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	118		70 - 130	03/15/21 09:00	03/15/21 16:53	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.1		4.99		mg/kg		03/16/21 10:45	03/16/21 11:23	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 14:38	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 14:38	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 14:38	1
Total TPH	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 135	03/16/21 12:00	03/16/21 14:38	1
o-Terphenyl	75		70 - 135	03/16/21 12:00	03/16/21 14:38	1

Client Sample ID: FS05

Date Collected: 03/12/21 11:00
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-8
Matrix: Solid

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 17:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 17:13	1
m,p-Xylenes	<0.00396	U	0.00396		mg/kg		03/15/21 09:00	03/15/21 17:13	1
o-Xylene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 17:13	1
Toluene	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 17:13	1
Total BTEX	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 17:13	1
Total Xylenes	<0.00198	U	0.00198		mg/kg		03/15/21 09:00	03/15/21 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130	03/15/21 09:00	03/15/21 17:13	1
4-Bromofluorobenzene	106		70 - 130	03/15/21 09:00	03/15/21 17:13	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.9		5.02		mg/kg		03/18/21 10:30	03/18/21 10:57	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 15:00	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 15:00	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 15:00	1
Total TPH	<49.9	U	49.9		mg/kg		03/16/21 12:00	03/16/21 15:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 135	03/16/21 12:00	03/16/21 15:00	1
o-Terphenyl	86		70 - 135	03/16/21 12:00	03/16/21 15:00	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method: BTEX 8021 - General Subcontract Method

Matrix: SOIL — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB (70-130)
691748-001 S	Matrix Spike	119
691748-001 SD	Matrix Spike Duplicate	111
7723410-1-BKS	Lab Control Sample	102
7723410-1-BLK	Method Blank	102
7723410-1-BSD	Lab Control Sample Dup	104

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: BTEX 8021 - General Subcontract Method

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-335-1	SW01	114	101
890-335-2	SW02	111	103
890-335-3	SW03	117	105
890-335-4	FS01	116	105
890-335-5	FS02	119	100
890-335-6	FS03	113	102
890-335-7	FS04	118	99
890-335-8	FS05	106	100

Surrogate Legend

BFB = 4-Bromofluorobenzene
DFBZ = 1,4-Difluorobenzene

Method: TPH 8015_NM_MOD - General Subcontract Method

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-335-1	SW01	97	96
890-335-2	SW02	90	88
890-335-3	SW03	92	91
890-335-4	FS01	89	87
890-335-5	FS02	83	80
890-335-6	FS03	108	102
890-335-7	FS04	81	75
890-335-8	FS05	86	86

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method: BTEX 8021 - General Subcontract Method

Lab Sample ID: 7723410-1-BLK
Matrix: SOIL
Analysis Batch: 3153756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153756_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/15/21 09:00	03/15/21 14:21	1
Ethylbenzene	<.002	U	.002		mg/kg		03/15/21 09:00	03/15/21 14:21	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/15/21 09:00	03/15/21 14:21	1
o-Xylene	<.002	U	.002		mg/kg		03/15/21 09:00	03/15/21 14:21	1
Toluene	<.002	U	.002		mg/kg		03/15/21 09:00	03/15/21 14:21	1

Surrogate	*BLANK %Recovery*	*BLANK Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 130*	*03/15/21 09:00*	*03/15/21 14:21*	*1*

Lab Sample ID: 7723410-1-BKS
Matrix: SOIL
Analysis Batch: 3153756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153756_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			.1	0.105		mg/kg		105	70 - 130		
Ethylbenzene			.1	0.109		mg/kg		109	71 - 129		
m,p-Xylenes			.2	0.223		mg/kg		112	70 - 135		
o-Xylene			.1	0.114		mg/kg		114	71 - 133		
Toluene			.1	0.110		mg/kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 130*

Lab Sample ID: 7723410-1-BSD
Matrix: SOIL
Analysis Batch: 3153756

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153756_P

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			.1	0.111		mg/kg		111	70 - 130	6	35
Ethylbenzene			.1	0.113		mg/kg		113	71 - 129	4	35
m,p-Xylenes			.2	0.229		mg/kg		115	70 - 135	3	35
o-Xylene			.1	0.116		mg/kg		116	71 - 133	2	35
Toluene			.1	0.113		mg/kg		113	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 130*

Lab Sample ID: 691748-001 S
Matrix: SOIL
Analysis Batch: 3153756

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153756_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<.002		.1	0.0470	X	mg/kg		47	70 - 130		
Ethylbenzene	<.002		.1	0.0883		mg/kg		88	71 - 129		
m,p-Xylenes	<.00401		.2	0.183		mg/kg		92	70 - 135		
o-Xylene	<.002		.1	0.0929		mg/kg		93	71 - 133		
Toluene	<.002		.1	0.0860		mg/kg		86	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method: BTEX 8021 - General Subcontract Method (Continued)

Lab Sample ID: 691748-001 S
Matrix: SOIL
Analysis Batch: 3153756

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153756_P

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	119		70 - 130

Lab Sample ID: 691748-001 SD
Matrix: SOIL
Analysis Batch: 3153756

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153756_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<.002		.1	0.0931	F	mg/kg		93	70 - 130	66	35
Ethylbenzene	<.002		.1	0.0943		mg/kg		94	71 - 129	7	35
m,p-Xylenes	<.00401		.2	0.189		mg/kg		95	70 - 135	3	35
o-Xylene	<.002		.1	0.0995		mg/kg		100	71 - 133	7	35
Toluene	<.002		.1	0.0956		mg/kg		96	70 - 130	11	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	111		70 - 130

Method: CHLORIDE E300 - General Subcontract Method

Lab Sample ID: 7723355-1-BLK
Matrix: SOIL
Analysis Batch: 3153746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153746_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.66		5		mg/kg		03/15/21 14:45	03/15/21 14:47	1

Lab Sample ID: 7723355-1-BKS
Matrix: SOIL
Analysis Batch: 3153746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153746_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	237		mg/kg		95	80 - 120		

Lab Sample ID: 7723355-1-BSD
Matrix: SOIL
Analysis Batch: 3153746

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153746_P

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	236		mg/kg		94	80 - 120	0	20

Lab Sample ID: 691748-002 S
Matrix: SOIL
Analysis Batch: 3153746

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153746_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	236		251	474		mg/kg		95	80 - 120		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method: CHLORIDE E300 - General Subcontract Method (Continued)

Lab Sample ID: 691748-002 SD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153746 — **Prep Batch: 3153746_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	236		251	474		mg/kg		95	80 - 120	0	20

Lab Sample ID: 7723415-1-BLK — **Client Sample ID: Method Blank**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153836 — **Prep Batch: 3153836_P**

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/16/21 10:45	03/16/21 10:50	1

Lab Sample ID: 7723415-1-BKS — **Client Sample ID: Lab Control Sample**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153836 — **Prep Batch: 3153836_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	243		mg/kg		97	80 - 120

Lab Sample ID: 7723415-1-BSD — **Client Sample ID: Lab Control Sample Dup**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153836 — **Prep Batch: 3153836_P**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	244		mg/kg		98	80 - 120	0	20

Lab Sample ID: 691748-006 S — **Client Sample ID: Matrix Spike**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153836 — **Prep Batch: 3153836_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	45.2		251	310		mg/kg		105	80 - 120

Lab Sample ID: 691748-006 SD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153836 — **Prep Batch: 3153836_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	45.2		251	305		mg/kg		104	80 - 120	2	20

Lab Sample ID: 7723593-1-BLK — **Client Sample ID: Method Blank**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3154078 — **Prep Batch: 3154078_P**

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/18/21 10:30	03/18/21 10:42	1

Lab Sample ID: 7723593-1-BKS — **Client Sample ID: Lab Control Sample**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3154078 — **Prep Batch: 3154078_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	261		mg/kg		104	80 - 120

QC Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method: CHLORIDE E300 - General Subcontract Method

Lab Sample ID: 7723593-1-BSD — **Client Sample ID: Lab Control Sample Dup**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3154078 — **Prep Batch: 3154078_P**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	262		mg/kg		105	80 - 120	0	20

Lab Sample ID: 691748-008 S — **Client Sample ID: Matrix Spike**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3154078 — **Prep Batch: 3154078_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	31.9		251	290		mg/kg		103	80 - 120		

Lab Sample ID: 691748-008 SD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3154078 — **Prep Batch: 3154078_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	31.9		251	288		mg/kg		102	80 - 120	1	20

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 7723503-1-BLK — **Client Sample ID: Method Blank**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153941 — **Prep Batch: 3153941_P**

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/16/21 12:00	03/16/21 10:47	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/16/21 12:00	03/16/21 10:47	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/16/21 12:00	03/16/21 10:47	1

Lab Sample ID: 7723503-1-BKS — **Client Sample ID: Lab Control Sample**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153941 — **Prep Batch: 3153941_P**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO)			1000	921		mg/kg		92	70 - 135		
Gasoline Range Hydrocarbons (GRO)			1000	909		mg/kg		91	70 - 135		

Lab Sample ID: 7723503-1-BSD — **Client Sample ID: Lab Control Sample Dup**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153941 — **Prep Batch: 3153941_P**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)			1000	921		mg/kg		92	70 - 135	0	20
Gasoline Range Hydrocarbons (GRO)			1000	912		mg/kg		91	70 - 135	0	20

Lab Sample ID: 691748-001 S — **Client Sample ID: Matrix Spike**
Matrix: SOIL — **Prep Type: Total/NA**
Analysis Batch: 3153941 — **Prep Batch: 3153941_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO)	<49.8		997	871		mg/kg		87	70 - 135		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method: TPH 8015_NM_MOD - General Subcontract Method (Continued)

Lab Sample ID: 691748-001 S
Matrix: SOIL
Analysis Batch: 3153941

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153941_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Hydrocarbons (GRO)	<49.8		997	847		mg/kg		85	70 - 135		

Lab Sample ID: 691748-001 SD
Matrix: SOIL
Analysis Batch: 3153941

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153941_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	<49.8		996	842		mg/kg		85	70 - 135	3	20
Gasoline Range Hydrocarbons (GRO)	<49.8		996	822		mg/kg		83	70 - 135	3	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Subcontract

Analysis Batch: 3153746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-1	SW01	Total/NA	Solid	CHLORIDE E300	3153746_P
890-335-2	SW02	Total/NA	Solid	CHLORIDE E300	3153746_P
890-335-3	SW03	Total/NA	Solid	CHLORIDE E300	3153746_P
890-335-4	FS01	Total/NA	Solid	CHLORIDE E300	3153746_P
890-335-5	FS02	Total/NA	Solid	CHLORIDE E300	3153746_P
7723355-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3153746_P
7723355-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3153746_P
7723355-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3153746_P
691748-002 S	Matrix Spike	Total/NA	SOIL	CHLORIDE E300	3153746_P
691748-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	CHLORIDE E300	3153746_P

Analysis Batch: 3153756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-1	SW01	Total/NA	Solid	BTEX 8021	3153756_P
890-335-2	SW02	Total/NA	Solid	BTEX 8021	3153756_P
890-335-3	SW03	Total/NA	Solid	BTEX 8021	3153756_P
890-335-4	FS01	Total/NA	Solid	BTEX 8021	3153756_P
890-335-5	FS02	Total/NA	Solid	BTEX 8021	3153756_P
890-335-6	FS03	Total/NA	Solid	BTEX 8021	3153756_P
890-335-7	FS04	Total/NA	Solid	BTEX 8021	3153756_P
890-335-8	FS05	Total/NA	Solid	BTEX 8021	3153756_P
7723410-1-BLK	Method Blank	Total/NA	SOIL	BTEX 8021	3153756_P
7723410-1-BKS	Lab Control Sample	Total/NA	SOIL	BTEX 8021	3153756_P
7723410-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	BTEX 8021	3153756_P
691748-001 S	Matrix Spike	Total/NA	SOIL	BTEX 8021	3153756_P
691748-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	BTEX 8021	3153756_P

Analysis Batch: 3153836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-6	FS03	Total/NA	Solid	CHLORIDE E300	3153836_P
890-335-7	FS04	Total/NA	Solid	CHLORIDE E300	3153836_P
7723415-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3153836_P
7723415-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3153836_P
7723415-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3153836_P
691748-006 S	Matrix Spike	Total/NA	SOIL	CHLORIDE E300	3153836_P
691748-006 SD	Matrix Spike Duplicate	Total/NA	SOIL	CHLORIDE E300	3153836_P

Analysis Batch: 3153941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-1	SW01	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
890-335-2	SW02	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
890-335-3	SW03	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
890-335-4	FS01	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
890-335-5	FS02	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
890-335-6	FS03	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
890-335-7	FS04	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P

QC Association Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Subcontract (Continued)

Analysis Batch: 3153941 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-8	FS05	Total/NA	Solid	TPH 8015_NM_MOD	3153941_P
7723503-1-BLK	Method Blank	Total/NA	SOIL	TPH 8015_NM_MOD	3153941_P
7723503-1-BKS	Lab Control Sample	Total/NA	SOIL	TPH 8015_NM_MOD	3153941_P
7723503-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	TPH 8015_NM_MOD	3153941_P
691748-001 S	Matrix Spike	Total/NA	SOIL	TPH 8015_NM_MOD	3153941_P
691748-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	TPH 8015_NM_MOD	3153941_P

Analysis Batch: 3154078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-8	FS05	Total/NA	Solid	CHLORIDE E300	3154078_P
7723593-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3154078_P
7723593-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3154078_P
7723593-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3154078_P
691748-008 S	Matrix Spike	Total/NA	SOIL	CHLORIDE E300	3154078_P
691748-008 SD	Matrix Spike Duplicate	Total/NA	SOIL	CHLORIDE E300	3154078_P

Prep Batch: 3153746_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-1	SW01	Total/NA	Solid	E300P	
890-335-2	SW02	Total/NA	Solid	E300P	
890-335-3	SW03	Total/NA	Solid	E300P	
890-335-4	FS01	Total/NA	Solid	E300P	
890-335-5	FS02	Total/NA	Solid	E300P	
7723355-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723355-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723355-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691748-002 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691748-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153756_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-1	SW01	Total/NA	Solid	SW5035A	
890-335-2	SW02	Total/NA	Solid	SW5035A	
890-335-3	SW03	Total/NA	Solid	SW5035A	
890-335-4	FS01	Total/NA	Solid	SW5035A	
890-335-5	FS02	Total/NA	Solid	SW5035A	
890-335-6	FS03	Total/NA	Solid	SW5035A	
890-335-7	FS04	Total/NA	Solid	SW5035A	
890-335-8	FS05	Total/NA	Solid	SW5035A	
7723410-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723410-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723410-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	
691748-001 S	Matrix Spike	Total/NA	SOIL	SW5035A	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Subcontract (Continued)

Prep Batch: 3153756_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
691748-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW5035A	

Prep Batch: 3153836_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-6	FS03	Total/NA	Solid	E300P	
890-335-7	FS04	Total/NA	Solid	E300P	
7723415-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723415-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723415-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691748-006 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691748-006 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153941_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-1	SW01	Total/NA	Solid	SW8015P	
890-335-2	SW02	Total/NA	Solid	SW8015P	
890-335-3	SW03	Total/NA	Solid	SW8015P	
890-335-4	FS01	Total/NA	Solid	SW8015P	
890-335-5	FS02	Total/NA	Solid	SW8015P	
890-335-6	FS03	Total/NA	Solid	SW8015P	
890-335-7	FS04	Total/NA	Solid	SW8015P	
890-335-8	FS05	Total/NA	Solid	SW8015P	
7723503-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723503-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723503-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691748-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691748-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3154078_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-335-8	FS05	Total/NA	Solid	E300P	
7723593-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723593-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723593-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691748-008 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691748-008 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: SW01
Date Collected: 03/12/21 08:25
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 14:50	KTL	XM
Total/NA	Prep	E300P		1	3153746_P	03/15/21 14:45		XM
Total/NA	Analysis	CHLORIDE E300		1	3153746	03/15/21 21:46	CHE	XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 11:49	ARM	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM

Client Sample ID: SW02
Date Collected: 03/12/21 11:20
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 15:11	KTL	XM
Total/NA	Prep	E300P		1	3153746_P	03/15/21 14:45		XM
Total/NA	Analysis	CHLORIDE E300		1	3153746	03/15/21 21:51	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 12:53	ARM	XM

Client Sample ID: SW03
Date Collected: 03/12/21 11:25
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 15:31	KTL	XM
Total/NA	Prep	E300P		1	3153746_P	03/15/21 14:45		XM
Total/NA	Analysis	CHLORIDE E300		5	3153746	03/15/21 22:08	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 13:14	ARM	XM

Client Sample ID: FS01
Date Collected: 03/12/21 08:30
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 15:51	KTL	XM
Total/NA	Prep	E300P		1	3153746_P	03/15/21 14:45		XM
Total/NA	Analysis	CHLORIDE E300		1	3153746	03/15/21 22:14	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 13:35	ARM	XM

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Client Sample ID: FS02
Date Collected: 03/12/21 11:15
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 16:12	KTL	XM
Total/NA	Prep	E300P		1	3153746_P	03/15/21 14:45		XM
Total/NA	Analysis	CHLORIDE E300		1	3153746	03/15/21 22:30	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 13:56	ARM	XM

Client Sample ID: FS03
Date Collected: 03/12/21 10:50
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 16:32	KTL	XM
Total/NA	Prep	E300P		1	3153836_P	03/16/21 10:45		XM
Total/NA	Analysis	CHLORIDE E300		1	3153836	03/16/21 11:07	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 14:17	ARM	XM

Client Sample ID: FS04
Date Collected: 03/12/21 10:55
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 16:53	KTL	XM
Total/NA	Prep	E300P		1	3153836_P	03/16/21 10:45		XM
Total/NA	Analysis	CHLORIDE E300		1	3153836	03/16/21 11:23	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 14:38	ARM	XM

Client Sample ID: FS05
Date Collected: 03/12/21 11:00
Date Received: 03/12/21 14:20

Lab Sample ID: 890-335-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	BTEX 8021		1	3153756	03/15/21 17:13	KTL	XM
Total/NA	Prep	E300P		1	3154078_P	03/18/21 10:30		XM
Total/NA	Analysis	CHLORIDE E300		1	3154078	03/18/21 10:57	CHE	XM
Total/NA	Prep	SW8015P		1	3153941_P	03/16/21 12:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3153941	03/16/21 15:00	ARM	XM

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

Method Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Method	Method Description	Protocol	Laboratory
Subcontract	BTEX 8021	None	XM
Subcontract	CHLORIDE E300	None	XM
Subcontract	TPH 8015_NM_MOD	None	XM

Protocol References:

None = None

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Golden Child CTB

Job ID: 890-335-1
SDG: TE012921018

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-335-1	SW01	Solid	03/12/21 08:25	03/12/21 14:20	
890-335-2	SW02	Solid	03/12/21 11:20	03/12/21 14:20	
890-335-3	SW03	Solid	03/12/21 11:25	03/12/21 14:20	
890-335-4	FS01	Solid	03/12/21 08:30	03/12/21 14:20	
890-335-5	FS02	Solid	03/12/21 11:15	03/12/21 14:20	
890-335-6	FS03	Solid	03/12/21 10:50	03/12/21 14:20	
890-335-7	FS04	Solid	03/12/21 10:55	03/12/21 14:20	
890-335-8	FS05	Solid	03/12/21 11:00	03/12/21 14:20	

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	1414 Littrell
Company Name:	WSP USA Inc, Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street.	Address:	522 West Mermond
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	(432) 236-3849 Email:		elizabeth.natka@wsp.com; dan.moir@wsp.com

Work Order Comments

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

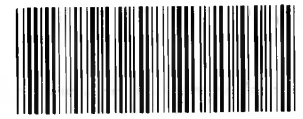
Project Name:	Goldenchild CTB	Turn Around	
Project Number:	TE012921018	☐ Routine ☒ Rush 2day	
Project Location:	Eddy County NM	Due Date:	
Sampler's Name:	Elizabeth Natka	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#4-007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Temperature Reading:	0.6
Total Containers:		Corrected Temperature:	0.4

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SW01	S	3/12/21	0825	0'-2'		1		X	X	X	composite
SW02			1120	0'-2'							
SW03			1125	0'-2'							
FS01			0830	2'							
FS02			1115	2'							
FS03			1050	3'							
FS04			1055	3'							
FS05	↓	↓	1100	3'		↓		↓	↓	↓	↓



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 SiO_2 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 Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Cruz Cuffy	3-12-21 1350			
3				4		
5				6		

Revised Date 08/25/2020 Rev. 2020.2

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-554-1
Laboratory Sample Delivery Group: Eddy County NM
Client Project/Site: Goldenchild Battery - TE012921018

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

Attn: Dan Moir

JKramer

Authorized for release by:
4/26/2021 7:37:19 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Goldenchild Battery - TE012921018

Laboratory Job ID: 890-554-1
SDG: Eddy County NM

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
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: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

Job ID: 890-554-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-554-1

Receipt
The samples were received on 4/22/2021 12:35 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 1.4°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS06 (890-554-1), SW04 (890-554-2), PH04 (890-554-3) and PH04 A (890-554-4).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: FS06 (890-554-1), SW04 (890-554-2), PH04 (890-554-3) and PH04 A (890-554-4). 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: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

Client Sample ID: FS06

Lab Sample ID: 890-554-1
Matrix: Solid
Date Collected: 04/22/21 09:25
Date Received: 04/22/21 12:35
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		04/23/21 13:38	04/24/21 17:18	1
Toluene	**0.00363**		0.00199		mg/Kg		04/23/21 13:38	04/24/21 17:18	1
Ethylbenzene	**0.00456**		0.00199		mg/Kg		04/23/21 13:38	04/24/21 17:18	1
m-Xylene & p-Xylene	**0.0103**		0.00398		mg/Kg		04/23/21 13:38	04/24/21 17:18	1
o-Xylene	**0.00362**		0.00199		mg/Kg		04/23/21 13:38	04/24/21 17:18	1
Xylenes, Total	**0.0139**		0.00398		mg/Kg		04/23/21 13:38	04/24/21 17:18	1
Total BTEX	**0.0221**		0.00398		mg/Kg		04/23/21 13:38	04/24/21 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*219*	*S1+*	*70 - 130*	*04/23/21 13:38*	*04/24/21 17:18*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*04/23/21 13:38*	*04/24/21 17:18*	*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		04/23/21 13:47	04/26/21 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 14:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 14:52	1
Total TPH	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*04/23/21 13:47*	*04/26/21 14:52*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*04/23/21 13:47*	*04/26/21 14:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.5**		4.97		mg/Kg			04/25/21 09:19	1

Client Sample ID: SW04

Lab Sample ID: 890-554-2
Matrix: Solid
Date Collected: 04/22/21 09:45
Date Received: 04/22/21 12:35
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		04/23/21 13:38	04/24/21 17:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/23/21 13:38	04/24/21 17:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/23/21 13:38	04/24/21 17:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/23/21 13:38	04/24/21 17:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/23/21 13:38	04/24/21 17:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/23/21 13:38	04/24/21 17:39	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/23/21 13:38	04/24/21 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*211*	*S1+*	*70 - 130*	*04/23/21 13:38*	*04/24/21 17:39*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*04/23/21 13:38*	*04/24/21 17:39*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

Client Sample ID: SW04

Lab Sample ID: 890-554-2
Matrix: Solid
Date Collected: 04/22/21 09:45
Date Received: 04/22/21 12:35
Sample Depth: 0 - 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:13	1
Total TPH	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*60*	*S1-*	*70 - 130*	*04/23/21 13:47*	*04/26/21 15:13*	*1*
o-Terphenyl	*52*	*S1-*	*70 - 130*	*04/23/21 13:47*	*04/26/21 15:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.0**		4.99		mg/Kg			04/25/21 09:24	1

Client Sample ID: PH04

Lab Sample ID: 890-554-3
Matrix: Solid
Date Collected: 04/22/21 10:20
Date Received: 04/22/21 12:35
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		04/23/21 13:38	04/24/21 18:00	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/23/21 13:38	04/24/21 18:00	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/23/21 13:38	04/24/21 18:00	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		04/23/21 13:38	04/24/21 18:00	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/23/21 13:38	04/24/21 18:00	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		04/23/21 13:38	04/24/21 18:00	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		04/23/21 13:38	04/24/21 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*04/23/21 13:38*	*04/24/21 18:00*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*04/23/21 13:38*	*04/24/21 18:00*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:34	1
Total TPH	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*04/23/21 13:47*	*04/26/21 15:34*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*04/23/21 13:47*	*04/26/21 15:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.7**		4.95		mg/Kg			04/25/21 09:29	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

Client Sample ID: PH04 A

Date Collected: 04/22/21 10:25
Date Received: 04/22/21 12:35
Sample Depth: - 3

Lab Sample ID: 890-554-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/23/21 13:38	04/24/21 18:20	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/23/21 13:38	04/24/21 18:20	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/23/21 13:38	04/24/21 18:20	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/23/21 13:38	04/24/21 18:20	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/23/21 13:38	04/24/21 18:20	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/23/21 13:38	04/24/21 18:20	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		04/23/21 13:38	04/24/21 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*04/23/21 13:38*	*04/24/21 18:20*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*04/23/21 13:38*	*04/24/21 18:20*	*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		04/23/21 13:47	04/26/21 15:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/23/21 13:47	04/26/21 15:56	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/23/21 13:47	04/26/21 15:56	1
Total TPH	<49.9	U	49.9		mg/Kg		04/23/21 13:47	04/26/21 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*04/23/21 13:47*	*04/26/21 15:56*	*1*
o-Terphenyl	*70*		*70 - 130*	*04/23/21 13:47*	*04/26/21 15:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.2**		5.00		mg/Kg			04/25/21 09:34	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-554-1	FS06	219 S1+	78
890-554-2	SW04	211 S1+	102
890-554-3	PH04	111	89
890-554-4	PH04 A	117	109
LCS 880-2226/1-B	Lab Control Sample	90	103
LCSD 880-2226/2-B	Lab Control Sample Dup	97	107
MB 880-2226/5-B	Method Blank	109	98

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-554-1	FS06	79	67 S1-
890-554-2	SW04	60 S1-	52 S1-
890-554-3	PH04	76	69 S1-
890-554-4	PH04 A	80	70
LCS 880-2228/2-A	Lab Control Sample	111	102
LCSD 880-2228/3-A	Lab Control Sample Dup	103	98
MB 880-2228/1-A	Method Blank	111	115

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2226/5-B **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 2277 **Prep Batch: 2226**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/23/21 13:38	04/24/21 16:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/23/21 13:38	04/24/21 16:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/23/21 13:38	04/24/21 16:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/23/21 13:38	04/24/21 16:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/23/21 13:38	04/24/21 16:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/23/21 13:38	04/24/21 16:15	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/23/21 13:38	04/24/21 16:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*04/23/21 13:38*	*04/24/21 16:15*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/23/21 13:38*	*04/24/21 16:15*	*1*

Lab Sample ID: LCS 880-2226/1-B **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 2277 **Prep Batch: 2226**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08212		mg/Kg		82	70 - 130		
Toluene			0.100	0.09331		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.09093		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1860		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09092		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-2226/2-B **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 2277 **Prep Batch: 2226**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08693		mg/Kg		87	70 - 130	6	35
Toluene			0.100	0.1020		mg/Kg		102	70 - 130	9	35
Ethylbenzene			0.100	0.09697		mg/Kg		97	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1979		mg/Kg		99	70 - 130	6	35
o-Xylene			0.100	0.09656		mg/Kg		97	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

QC Sample Results

Client: WSP USA Inc. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

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

Lab Sample ID: MB 880-2228/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 2306 **Prep Batch: 2228**

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		04/23/21 13:47	04/26/21 08:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 08:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 08:31	1
Total TPH	<50.0	U	50.0		mg/Kg		04/23/21 13:47	04/26/21 08:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*04/23/21 13:47*	*04/26/21 08:31*	*1*
o-Terphenyl	*115*		*70 - 130*	*04/23/21 13:47*	*04/26/21 08:31*	*1*

Lab Sample ID: LCS 880-2228/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 2306 **Prep Batch: 2228**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1174		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1036		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: LCSD 880-2228/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 2306 **Prep Batch: 2228**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1125		mg/Kg		112	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1013		mg/Kg		101	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2211/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 2297

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/25/21 07:02	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-2211/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 2297

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	268.9		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-2211/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 2297

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	267.5		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

GC VOA

Prep Batch: 2226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-554-1	FS06	Total/NA	Solid	5035	
890-554-2	SW04	Total/NA	Solid	5035	
890-554-3	PH04	Total/NA	Solid	5035	
890-554-4	PH04 A	Total/NA	Solid	5035	
MB 880-2226/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-2226/1-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2226/2-B	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-554-1	FS06	Total/NA	Solid	8021B	2226
890-554-2	SW04	Total/NA	Solid	8021B	2226
890-554-3	PH04	Total/NA	Solid	8021B	2226
890-554-4	PH04 A	Total/NA	Solid	8021B	2226
MB 880-2226/5-B	Method Blank	Total/NA	Solid	8021B	2226
LCS 880-2226/1-B	Lab Control Sample	Total/NA	Solid	8021B	2226
LCSD 880-2226/2-B	Lab Control Sample Dup	Total/NA	Solid	8021B	2226

GC Semi VOA

Prep Batch: 2228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-554-1	FS06	Total/NA	Solid	8015NM Prep	
890-554-2	SW04	Total/NA	Solid	8015NM Prep	
890-554-3	PH04	Total/NA	Solid	8015NM Prep	
890-554-4	PH04 A	Total/NA	Solid	8015NM Prep	
MB 880-2228/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2228/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2228/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-554-1	FS06	Total/NA	Solid	8015B NM	2228
890-554-2	SW04	Total/NA	Solid	8015B NM	2228
890-554-3	PH04	Total/NA	Solid	8015B NM	2228
890-554-4	PH04 A	Total/NA	Solid	8015B NM	2228
MB 880-2228/1-A	Method Blank	Total/NA	Solid	8015B NM	2228
LCS 880-2228/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2228
LCSD 880-2228/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2228

HPLC/IC

Leach Batch: 2211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-554-1	FS06	Soluble	Solid	DI Leach	
890-554-2	SW04	Soluble	Solid	DI Leach	
890-554-3	PH04	Soluble	Solid	DI Leach	
890-554-4	PH04 A	Soluble	Solid	DI Leach	
MB 880-2211/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2211/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2211/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

HPLC/IC

Analysis Batch: 2297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-554-1	FS06	Soluble	Solid	300.0	2211
890-554-2	SW04	Soluble	Solid	300.0	2211
890-554-3	PH04	Soluble	Solid	300.0	2211
890-554-4	PH04 A	Soluble	Solid	300.0	2211
MB 880-2211/1-A	Method Blank	Soluble	Solid	300.0	2211
LCS 880-2211/2-A	Lab Control Sample	Soluble	Solid	300.0	2211
LCSD 880-2211/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2211

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

Client Sample ID: FS06 Lab Sample ID: 890-554-1

Date Collected: 04/22/21 09:25 **Matrix: Solid**
Date Received: 04/22/21 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2226	04/23/21 13:38	KL	XM
Total/NA	Analysis	8021B		1	2277	04/24/21 17:18	KL	XM
Total/NA	Prep	8015NM Prep			2228	04/23/21 13:47	DM	XM
Total/NA	Analysis	8015B NM		1	2306	04/26/21 14:52	AJ	XM
Soluble	Leach	DI Leach			2211	04/23/21 12:16	CH	XM
Soluble	Analysis	300.0		1	2297	04/25/21 09:19	WP	XM

Client Sample ID: SW04 Lab Sample ID: 890-554-2

Date Collected: 04/22/21 09:45 **Matrix: Solid**
Date Received: 04/22/21 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2226	04/23/21 13:38	KL	XM
Total/NA	Analysis	8021B		1	2277	04/24/21 17:39	KL	XM
Total/NA	Prep	8015NM Prep			2228	04/23/21 13:47	DM	XM
Total/NA	Analysis	8015B NM		1	2306	04/26/21 15:13	AJ	XM
Soluble	Leach	DI Leach			2211	04/23/21 12:16	CH	XM
Soluble	Analysis	300.0		1	2297	04/25/21 09:24	WP	XM

Client Sample ID: PH04 Lab Sample ID: 890-554-3

Date Collected: 04/22/21 10:20 **Matrix: Solid**
Date Received: 04/22/21 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2226	04/23/21 13:38	KL	XM
Total/NA	Analysis	8021B		1	2277	04/24/21 18:00	KL	XM
Total/NA	Prep	8015NM Prep			2228	04/23/21 13:47	DM	XM
Total/NA	Analysis	8015B NM		1	2306	04/26/21 15:34	AJ	XM
Soluble	Leach	DI Leach			2211	04/23/21 12:16	CH	XM
Soluble	Analysis	300.0		1	2297	04/25/21 09:29	WP	XM

Client Sample ID: PH04 A Lab Sample ID: 890-554-4

Date Collected: 04/22/21 10:25 **Matrix: Solid**
Date Received: 04/22/21 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2226	04/23/21 13:38	KL	XM
Total/NA	Analysis	8021B		1	2277	04/24/21 18:20	KL	XM
Total/NA	Prep	8015NM Prep			2228	04/23/21 13:47	DM	XM
Total/NA	Analysis	8015B NM		1	2306	04/26/21 15:56	AJ	XM
Soluble	Leach	DI Leach			2211	04/23/21 12:16	CH	XM
Soluble	Analysis	300.0		1	2297	04/25/21 09:34	WP	XM

Laboratory References:

XM = 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: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

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. Job ID: 890-554-1
Project/Site: Goldenchild Battery - TE012921018 SDG: Eddy County NM

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: Goldenchild Battery - TE012921018

Job ID: 890-554-1
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-554-1	FS06	Solid	04/22/21 09:25	04/22/21 12:35	- 4
890-554-2	SW04	Solid	04/22/21 09:45	04/22/21 12:35	0 - 4
890-554-3	PH04	Solid	04/22/21 10:20	04/22/21 12:35	- 1
890-554-4	PH04 A	Solid	04/22/21 10:25	04/22/21 12:35	- 3

Site Info: Goldenchild CTB
NAPP2035256230
NAPP2101331137
NAPP2101335437
cost center: 1055751001
API: 3001541046

Chain of Custody

Work Order No: _____

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

4/26/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc, Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	elizabeth.naka@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:	Goldenchild Battery	Turn Around	
Project Number:	TE012921018	Routine ☐	
P.O. Number:	Eddy County	Rush: 3 day	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.6/1.4	Thermometer ID	IR-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
FS06	S	4/22/21	0925	4'	1	X	X	X	composite
SW04	↓	↓	0945	0'-4'	↓	↓	↓	↓	composite
H04	↓	↓	1020	1'	↓	↓	↓	↓	discrete
H04A	↓	↓	1025	3'	↓	↓	↓	↓	discrete

890-554 Chain of Custody

Work Order Notes

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Elizabeth Naka	Joe Cruz	4.22.21 1235	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

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: 890-179 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 #: 890-554-1
Address: 1211 W Florida Ave,	Due Date Requested: 4/27/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Goldenchild Battery	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:								
FS06 (890-554-1)	4/22/21	09 25 Mountain		Solid			X	X	X	1	
SW04 (890-554-2)	4/22/21	09 45 Mountain		Solid			X	X	X	1	
PH04 (890-554-3)	4/22/21	10 20 Mountain		Solid			X	X	X	1	
PH04 A (890-554-4)	4/22/21	10 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	Date/Time	Company	Received by	Date/Time	Company
1	Sue Cuff 4-21-21				4-23-21 11:00am	
2						
3						

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

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-554-1
SDG Number: Eddy County NM

Login Number: 554
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: 890-554-1
SDG Number: Eddy County NM

Login Number: 554
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/23/21 11:08 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 30142

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 30142
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved.	6/28/2022