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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: Adrian Baker Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Location:	**Thriller Battery**	
Spill Date:	**4/4/2021**	
Area 1		
Approximate Area =	485.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.11	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.11**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2110463633
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 05/27/2021

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

OCD Only

Received by: Robert Hamlet Date: 8/10/2021

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

Closure Approved by: Robert Hamlet Date: 8/10/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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: Closure Request
Thriller Battery
Incident Numbers nAPP2108546355, nAPP2108544357, and nAPP2110463633
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Thriller Battery (Site) in Unit A, Section 32, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following three flare fire release events at the Site. Based on field observations and soil sample analytical results, XTO is submitting this Closure Request, and requesting no further action (NFA) for Incident Numbers nAPP2108546355, nAPP2108544357, and nAPP2110463633.

RELEASE BACKGROUND

On March 18, 2021, the battery vapor recovery unit (VRU) shut down, causing the release of approximately 0.14 barrels (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 New Mexico Oil Conservation Division (NMOCD) via email on March 19, 2021. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted on March 26, 2021 and the release was assigned Incident Number nAPP2108546355.

On March 19, 2021, the battery VRU shut down, causing the release of approximately 0.28 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 March 20, 2021. A Form C-141 on was submitted on March 26, 2021 and the release was assigned Incident Number nAPP2108544357.

On April 4, 2021, an open vacuum breaker caused approximately 0.11 bbls of crude oil to release 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 April 5, 2021.

A Form C-141 on was submitted on April 14, 2021 and the release was assigned Incident Number nAPP2110463633.

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 between 50 feet and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320532104001701, located approximately 0.37 miles west of the Site. The groundwater well has a reported depth to groundwater of 98 feet bgs and a total depth of 128 feet bgs. Ground surface elevation at the groundwater well location is 2,988 feet above mean sea level (amsl), which is approximately 6 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 2,065 feet east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES

On April 29, 2021, WSP personnel visited the Site to evaluate the flare fire release extents based on information provided on the Form C-141s, visual observations, and information provided by on-site XTO personnel. The release extents from the three flare fires overlapped and were evaluated simultaneously. Three potholes (PH01 through PH03) were advanced using a track-mounted backhoe to a depth of approximately 2 feet bgs near the flare stack. Delineation soil samples were collected from the potholes from depths of approximately 1-foot and 2 feet bgs to assess for the presence or absence of impacted soil. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling log, which are included in Attachment 2. The delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the site visit and are included in Attachment 3.

The 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.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples from potholes PH01 through PH03 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from three flare fire release events at the Site. Laboratory analytical results for the soil samples collected within the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no impacted soil was identified, and no further remediation was required. As such, XTO respectfully requests NFA for Incident Numbers nAPP2108546355, nAPP2108544357, and nAPP2110463633.

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

Sincerely,

WSP USA Inc.

Spencer Lo
Staff Geologist

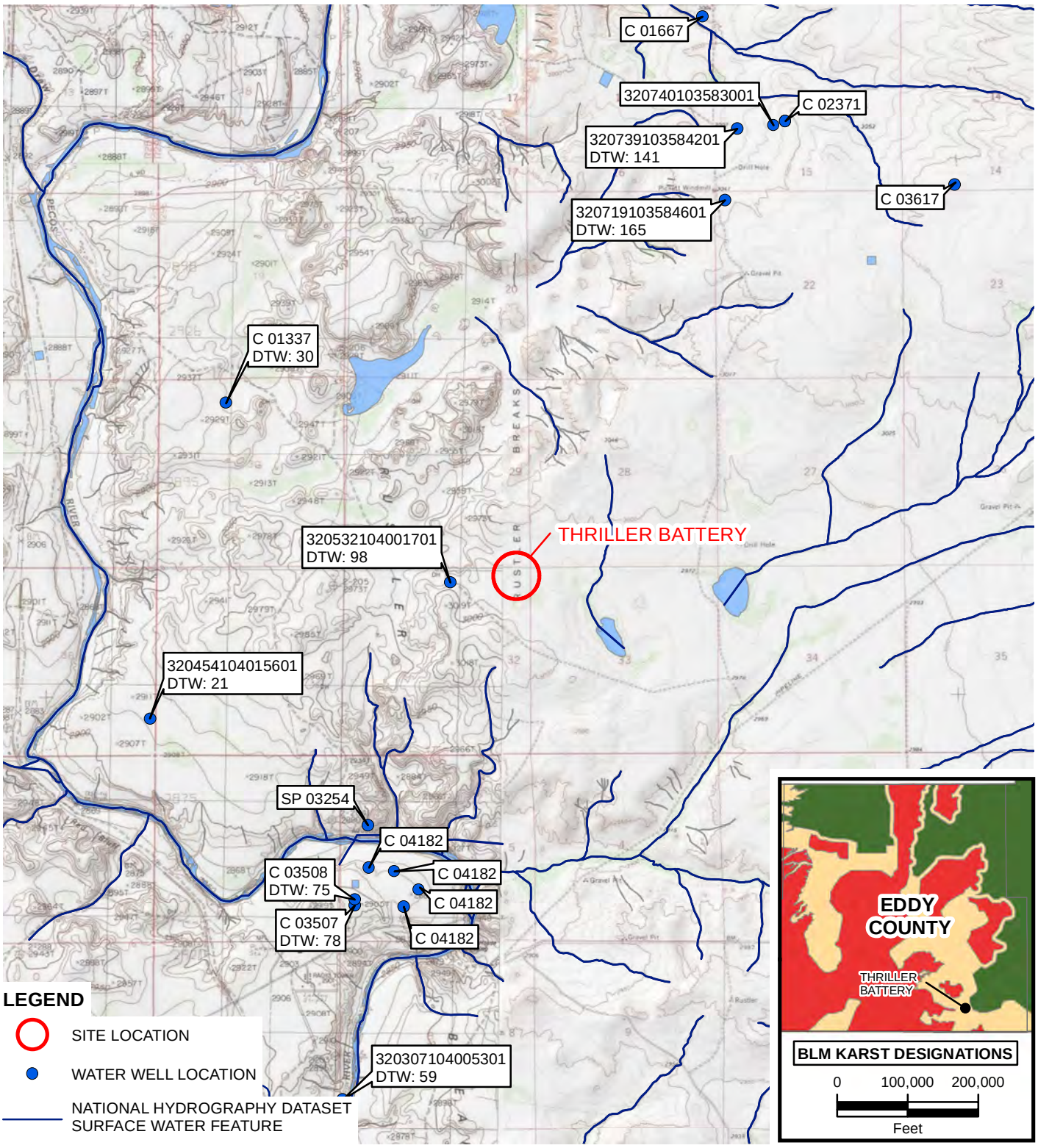
Ashley L. Ager, P.G.
Managing Director, Geologist

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

Attachments:

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

FIGURES



DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBERS nAPP2108544357, nAPP2108546355, and nAPP2110463633

FIGURE 1
SITE LOCATION MAP
THRILLER BATTERY
UNIT A SEC 32 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921051_THRILLER\012921051_FIG01_SL_RECEPTOR_2021.mxd

LEGEND

- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLARE STACK
- RELEASE EXTENT

IMAGE COURTESY OF ESRI

0 40 80
Feet

N

NOTE: INCIDENT NUMBERS nAPP2108544357, nAPP2108546355, and nAPP2110463633
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
THRILLER BATTERY
UNIT A SEC 32 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921051_THRILLER\012921051_FIG02_DELINEATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
Thriller Battery
Incident Numbers: nAPP2108544357, nAPP2108546355, and nAPP2110463633
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
Delineation Samples										
PH01	04/29/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	76.4
PH01A	04/29/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	394
PH02	04/29/2021	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	91.6
PH02A	04/29/2021	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	17.7
PH03	04/29/2021	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	684
PH03A	04/29/2021	2	<0.00199	<0.00398	<49.9	71.2	<49.9	71.2	71.2	1,650

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

ATTACHMENT 1: REFERENCED WELL RECORD

USGS 320532104001701 25S.29E.32.21111

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°05'32", Longitude 104°00'17" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 128 feet
Land surface altitude: 2,988 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

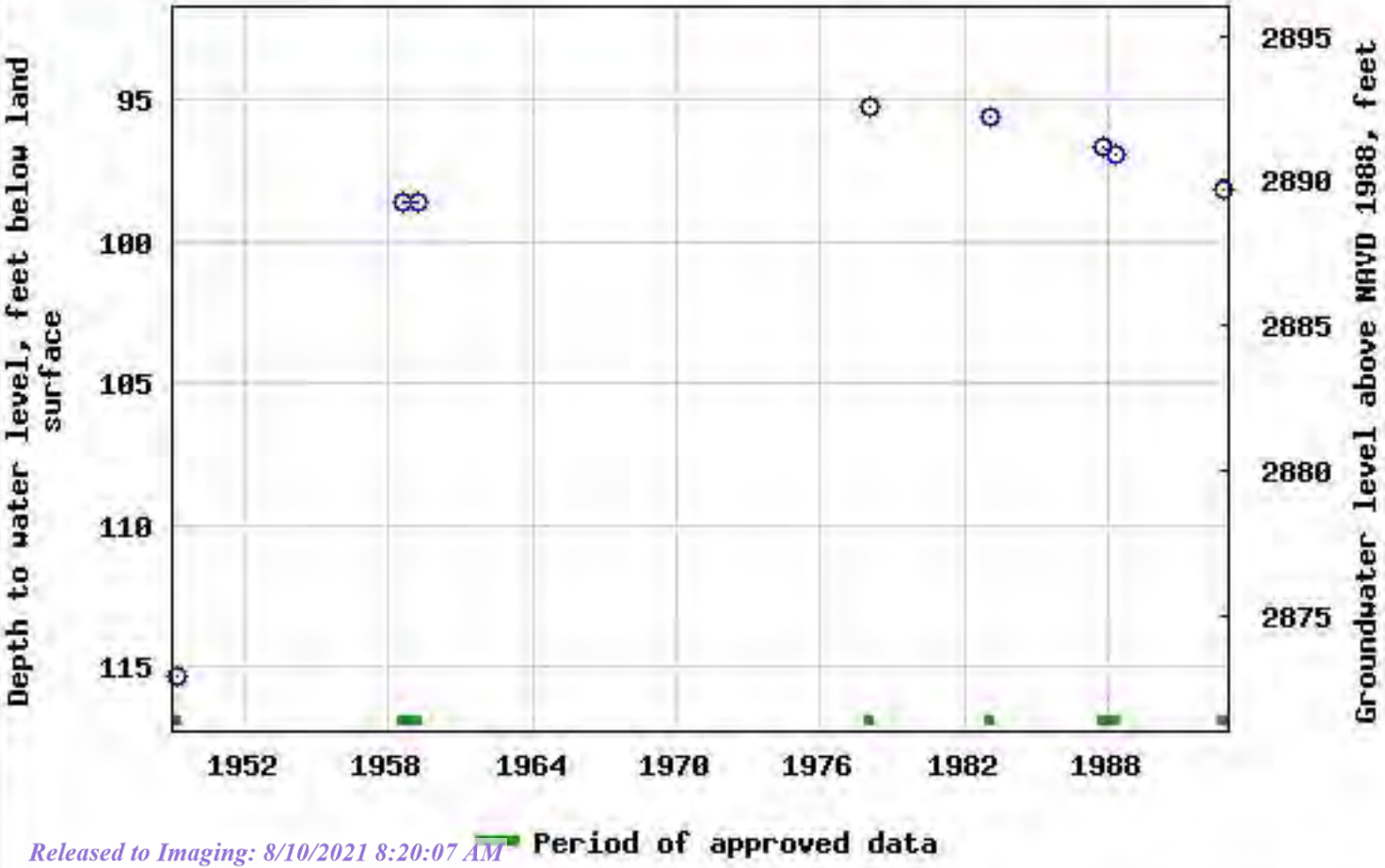
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1949-03-11	1992-11-03	24
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320532104001701 25S.29E.32.21111



USGS 320307104005301 26S.28E.13.11214

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°03'07", Longitude 104°00'53" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 2,858 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

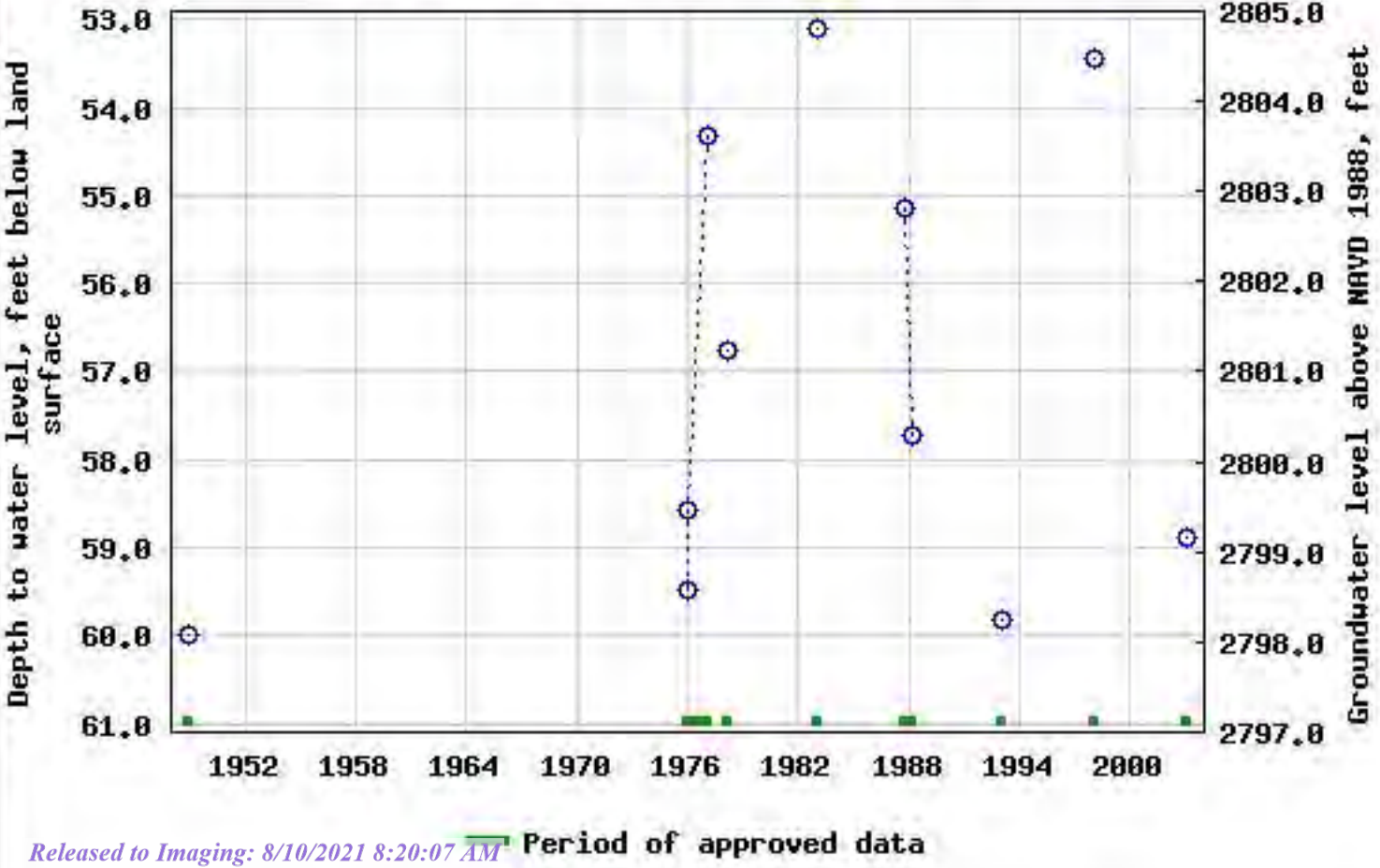
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1948-12-15	2003-01-27	33
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320307104005301 26S.28E.13.11214



USGS 320454104015601 26S.28E.02.112111

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°04'54", Longitude 104°01'56" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 2,913 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Castile Formation" (312CSTL) local aquifer

AVAILABLE DATA:

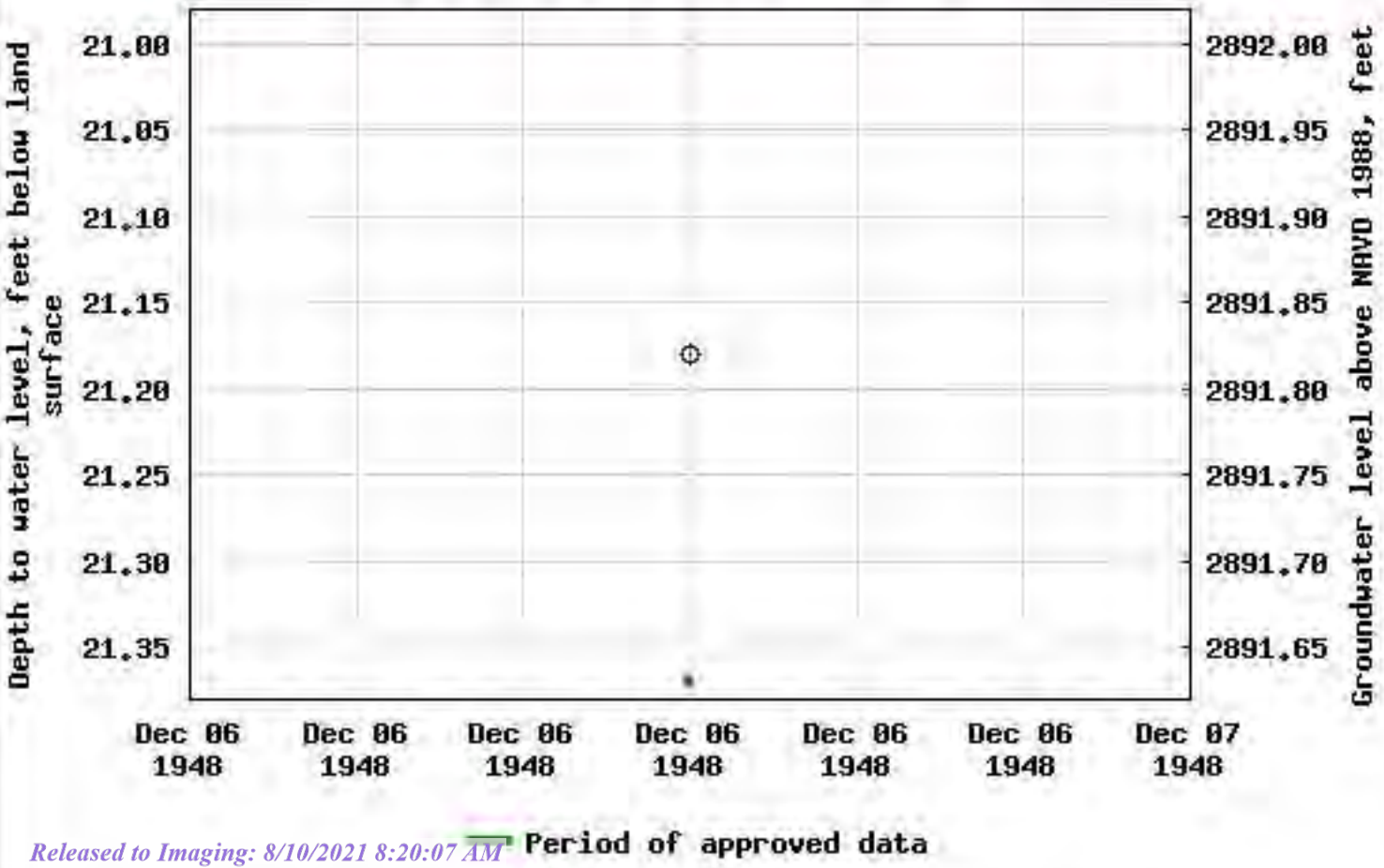
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1948-12-06	1948-12-06	3
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320454104015601 26S.28E.02.112111



USGS 320719103584601 25S.29E.16.44444

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°07'19", Longitude 103°58'46" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 200 feet
Land surface altitude: 3,042 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

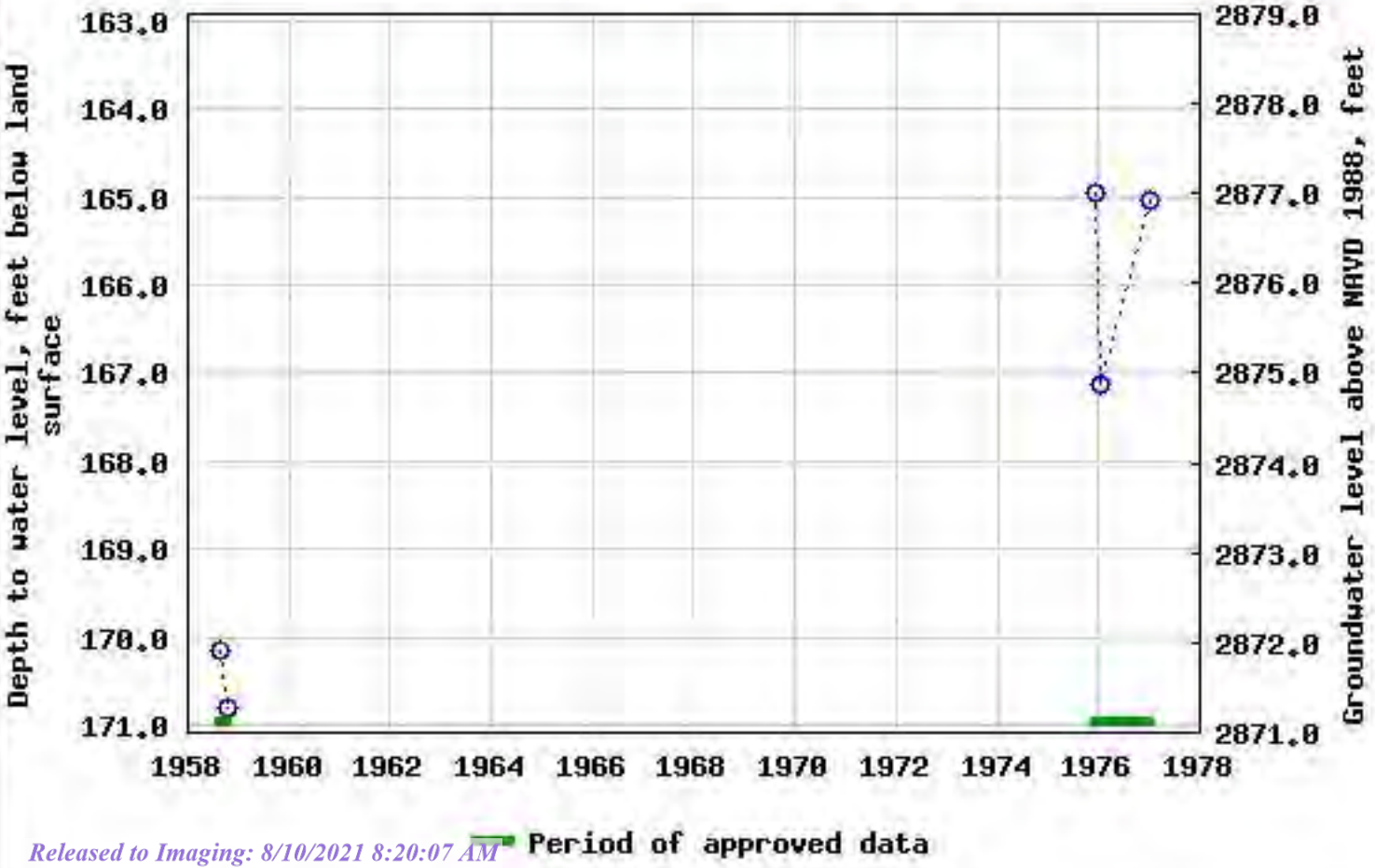
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-08-19	1977-01-14	15
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320719103584601 25S.29E.16.44444



USGS 320739103584201 25S.29E.15.31134

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°07'39", Longitude 103°58'42" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 192 feet
Land surface altitude: 3,017 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

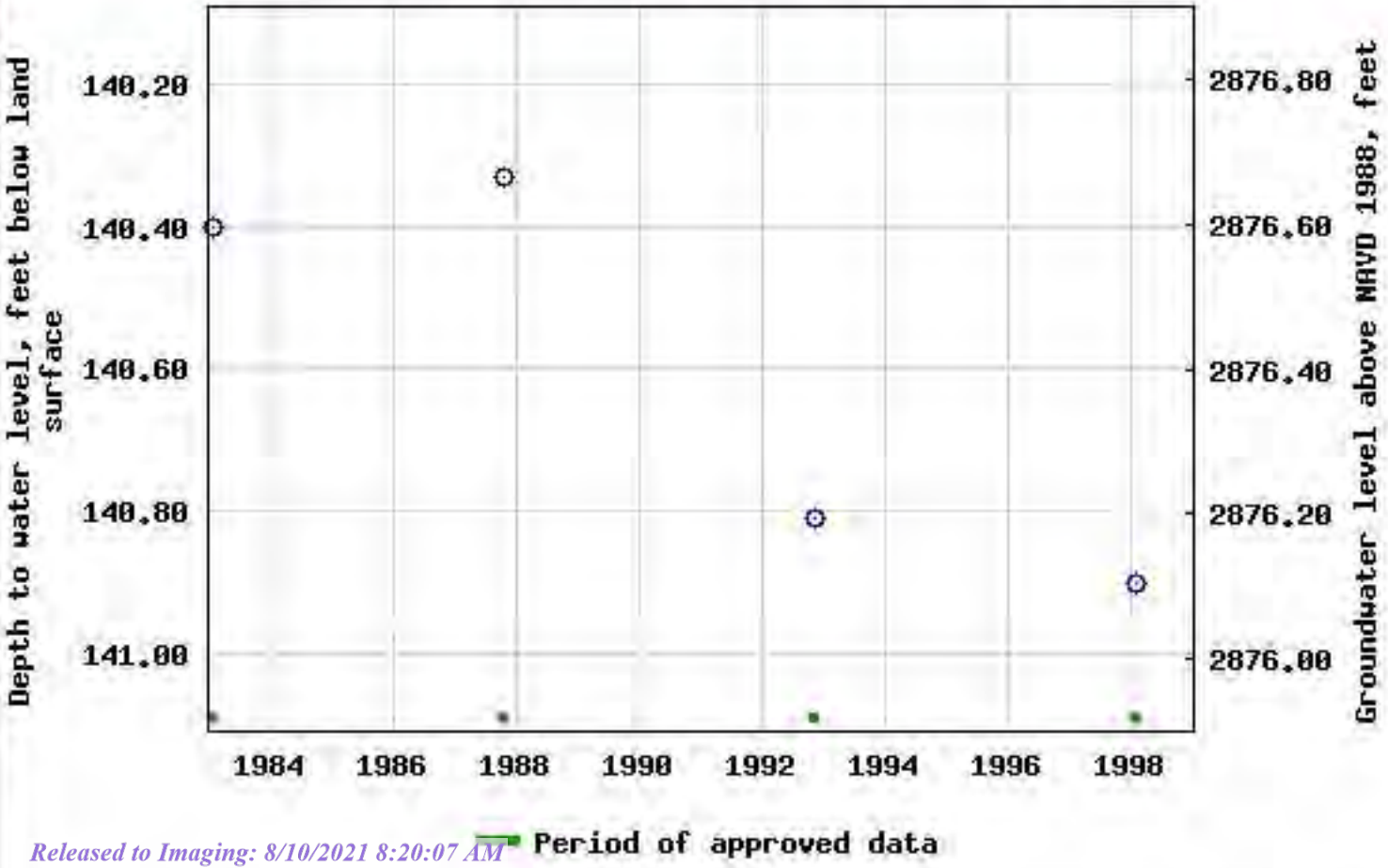
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-02-01	1998-01-29	12
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320739103584201 25S.29E.15.31134



New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 01337		2	1	30	25S	29E	591926	3552642*

x

Driller License: 24 **Driller Company:** BRININSTOOL, M.D.

Driller Name: HOWARD HEMLER

Drill Start Date: 08/25/1966 **Drill Finish Date:** 08/30/1966 **Plug Date:**

Log File Date: 01/26/1967 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 7.00 **Depth Well:** 180 feet **Depth Water:** 30 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	73	93	Sandstone/Gravel/Conglomerate
	163	172	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	163	172

x

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03507 POD1	1	3	3	05	26S	29E	593064	3548313

x

Driller License: 1058 **Driller Company:** KEY'S DRILLING & PUMP SERVICE

Driller Name: KEY, CLINTON

Drill Start Date: 08/26/2011 **Drill Finish Date:** 08/26/2011 **Plug Date:**

Log File Date: 09/12/2011 **PCW Rcv Date:** **Source:** Shallow

Pump Type: SUBMER **Pipe Discharge Size:** **Estimated Yield:** 35 GPM

Casing Size: 6.00 **Depth Well:** 140 feet **Depth Water:** 78 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	78	79	Shale/Mudstone/Siltstone
	105	106	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	75	112

x

POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03508 POD1	1	3	3	05	26S	29E	593063	3548361

x

Driller License: 1058 **Driller Company:** KEY'S DRILLING & PUMP SERVICE

Driller Name: KEY, CLINTON

Drill Start Date: 08/24/2011 **Drill Finish Date:** 08/24/2011 **Plug Date:**

Log File Date: 09/12/2011 **PCW Rcv Date:** **Source:** Shallow

Pump Type: SUBMER **Pipe Discharge Size:** **Estimated Yield:** 40 GPM

Casing Size: 6.00 **Depth Well:** 140 feet **Depth Water:** 75 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	75	76	Shale/Mudstone/Siltstone

x

Casing Perforations:	Top	Bottom
	65	105

x

POINT OF DIVERSION SUMMARY

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH01	Date: 4/29/2021
Site Name: Thriller	
RP or Incident Number:	
LTE Job Number: TE012921051	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By SL		Method: Backhoe	
Lat/Long: 32.092560,-103.999463	Field Screening: Chloride, PID	Hole Diameter: -	Total Depth: 2'

Comments:
Field screening value includes 60% error factor. TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		0-2' Caliche w/ sand, well sorted, light brown, tan, no odor, no stain, trace silt, m-f grained
D	<186	0.0	N	PH01	1'	1	CCHE	
D	<186	0.0	N	PH01A	2'	2		
								TD @ 2'
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH02	4/29/2021
Site Name: Thriller	
RP or Incident Number:	
LTE Job Number: TE012921051	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By SL	Method: Backhoe

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.092577,-103.999407	Chloride, PID	-	2'

Comments:
Field screening value includes 60% error factor. TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<186	0.0	N	PH01	1'	0 - 1	CCHE	0-1' Caliche w/ sand, well sorted, light brown, tan, no odor, no stain, trace silt, m-f grained
D	377	0.0	N	PH01A	2'	1 - 2	SP-SM	1'-2' Sand w/ caliche, brown, well sorted, m-f grained, no odor no stain
						2 - 3		TD @ 2'
						3 - 4		
						4 - 5		
						5 - 6		
						6 - 7		
						7 - 8		
						8 - 9		
						9 - 10		
						10 - 11		
						11 - 12		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH03	Date: 4/29/2021
Site Name: Thriller	
RP or Incident Number:	
LTE Job Number: TE012921051	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By SL		Method: Backhoe	
Lat/Long: 32.092564,-103.999508	Field Screening: Chloride, PID	Hole Diameter: -	Total Depth: 2'

Comments:
Field screening value includes 60% error factor. TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<186	0.0	N	PH01	1'	0 - 1	CCHE	0-1' Caliche w/ sand, well sorted, light brown, tan, no odor, no stain, trace silt, m-f grained
D	435	0.0	N	PH01A	2'	1 - 2	SP-SM	1'-2' Sand w/ caliche, brown, well sorted, m-f grained, no odor no stain
						2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12		TD @ 2'

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Thriller Battery Eddy County, NM	TE012921051

Photo No.	Date
1	April 29, 2021

Western view of PH02 delineation.

Photo No.	Date
2	April 29, 2021

Northern view of PH03 delineation.

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: 890-602-1
Laboratory Sample Delivery Group: TE012921051
Client Project/Site: Thriller

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/4/2021 3:51:49 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: Thriller

Laboratory Job ID: 890-602-1
SDG: TE012921051

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 7
QC Sample Results 8
QC Association Summary 11
Lab Chronicle 13
Certification Summary 14
Method Summary 15
Sample Summary 16
Chain of Custody 17
Receipt Checklists 19

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-602-1
Project/Site: Thriller SDG: TE012921051

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

Job ID: 890-602-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-602-1

Receipt
The samples were received on 4/29/2021 4:39 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 2.0°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-602-1) and PH01A (890-602-2).

GC VOA
Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: PH01 (890-602-1) and PH01A (890-602-2). The sample(s) shows evidence of matrix interference.

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-2571 and analytical batch 880-2589 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

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: Thriller

Job ID: 890-602-1
SDG: TE012921051

Client Sample ID: PH01

Lab Sample ID: 890-602-1
Matrix: Solid
Date Collected: 04/29/21 11:00
Date Received: 04/29/21 16:39
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 20:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 20:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 20:19	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/30/21 10:10	05/01/21 20:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 20:19	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/30/21 10:10	05/01/21 20:19	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		04/30/21 10:10	05/01/21 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*04/30/21 10:10*	*05/01/21 20:19*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/30/21 10:10*	*05/01/21 20:19*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 14:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		04/30/21 16:30	05/01/21 14:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 14:51	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*04/30/21 16:30*	*05/01/21 14:51*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/30/21 16:30*	*05/01/21 14:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.4**		4.98		mg/Kg			05/03/21 18:14	1

Client Sample ID: PH01A

Lab Sample ID: 890-602-2
Matrix: Solid
Date Collected: 04/29/21 11:10
Date Received: 04/29/21 16:39
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/30/21 10:10	05/01/21 20:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/30/21 10:10	05/01/21 20:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/30/21 10:10	05/01/21 20:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/30/21 10:10	05/01/21 20:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/30/21 10:10	05/01/21 20:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/30/21 10:10	05/01/21 20:40	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/30/21 10:10	05/01/21 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/30/21 10:10*	*05/01/21 20:40*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*04/30/21 10:10*	*05/01/21 20:40*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

Client Sample ID: PH01A

Date Collected: 04/29/21 11:10
Date Received: 04/29/21 16:39
Sample Depth: - 2

Lab Sample ID: 890-602-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:14	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*04/30/21 16:30*	*05/01/21 15:14*	*1*
o-Terphenyl	*117*		*70 - 130*	*04/30/21 16:30*	*05/01/21 15:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**394**	**F1**	5.00		mg/Kg			05/03/21 18:20	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

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)										
890-602-1	PH01	115	103										
890-602-2	PH01A	102	86										
LCS 880-2532/1-A	Lab Control Sample	108	105										
LCSD 880-2532/2-A	Lab Control Sample Dup	106	105										
MB 880-2532/5-A	Method Blank	100	98										
MB 880-2540/5-A	Method Blank	102	100										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-602-1	PH01	105	111										
890-602-2	PH01A	107	117										
LCS 880-2571/2-A	Lab Control Sample	107	108										
LCSD 880-2571/3-A	Lab Control Sample Dup	108	105										
MB 880-2571/1-A	Method Blank	99	105										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2532/5-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2532

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*04/30/21 10:10*	*05/01/21 12:33*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/30/21 10:10*	*05/01/21 12:33*	*1*

Lab Sample ID: LCS 880-2532/1-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2532

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1002		mg/Kg		100	70 - 130		
Toluene			0.100	0.1017		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1070		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2130		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1036		mg/Kg		104	70 - 130		

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

Lab Sample ID: LCSD 880-2532/2-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2532

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1002		mg/Kg		100	70 - 130	0	35
Toluene			0.100	0.1017		mg/Kg		102	70 - 130	0	35
Ethylbenzene			0.100	0.1038		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2092		mg/Kg		105	70 - 130	2	35
o-Xylene			0.100	0.1025		mg/Kg		102	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: MB 880-2540/5-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2540

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

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

Lab Sample ID: MB 880-2540/5-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2540

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 13:50	05/01/21 00:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/30/21 13:50*	*05/01/21 00:58*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/30/21 13:50*	*05/01/21 00:58*	*1*

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

Lab Sample ID: MB 880-2571/1-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2571

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		04/30/21 16:30	05/01/21 11:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 11:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 11:38	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*04/30/21 16:30*	*05/01/21 11:38*	*1*
o-Terphenyl	*105*		*70 - 130*	*04/30/21 16:30*	*05/01/21 11:38*	*1*

Lab Sample ID: LCS 880-2571/2-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2571

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1159		mg/Kg		116	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1112		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

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

Lab Sample ID: LCSD 880-2571/3-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2571

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1057		mg/Kg		106	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1325	*+	mg/Kg		132	70 - 130	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2556/1-A
Matrix: Solid
Analysis Batch: 2608

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/03/21 15:17	1

Lab Sample ID: LCS 880-2556/2-A
Matrix: Solid
Analysis Batch: 2608

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	263.2		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-2556/3-A
Matrix: Solid
Analysis Batch: 2608

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	258.2		mg/Kg		103	90 - 110	2	20

Lab Sample ID: 890-602-2 MS
Matrix: Solid
Analysis Batch: 2608

Client Sample ID: PH01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	394	F1	250	602.0	F1	mg/Kg		83	90 - 110		

Lab Sample ID: 890-602-2 MSD
Matrix: Solid
Analysis Batch: 2608

Client Sample ID: PH01A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	394	F1	250	607.8	F1	mg/Kg		86	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

GC VOA

Analysis Batch: 2530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	8021B	2532
890-602-2	PH01A	Total/NA	Solid	8021B	2532
MB 880-2532/5-A	Method Blank	Total/NA	Solid	8021B	2532
MB 880-2540/5-A	Method Blank	Total/NA	Solid	8021B	2540
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	8021B	2532
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2532

Prep Batch: 2532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	5035	
890-602-2	PH01A	Total/NA	Solid	5035	
MB 880-2532/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 2540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2540/5-A	Method Blank	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 2571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	8015NM Prep	
890-602-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Total/NA	Solid	8015B NM	2571
890-602-2	PH01A	Total/NA	Solid	8015B NM	2571
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015B NM	2571
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2571
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2571

HPLC/IC

Leach Batch: 2556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Soluble	Solid	DI Leach	
890-602-2	PH01A	Soluble	Solid	DI Leach	
MB 880-2556/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-602-2 MS	PH01A	Soluble	Solid	DI Leach	
890-602-2 MSD	PH01A	Soluble	Solid	DI Leach	

Analysis Batch: 2608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-1	PH01	Soluble	Solid	300.0	2556

QC Association Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

HPLC/IC (Continued)

Analysis Batch: 2608 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-602-2	PH01A	Soluble	Solid	300.0	2556
MB 880-2556/1-A	Method Blank	Soluble	Solid	300.0	2556
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	300.0	2556
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2556
890-602-2 MS	PH01A	Soluble	Solid	300.0	2556
890-602-2 MSD	PH01A	Soluble	Solid	300.0	2556

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

Client Sample ID: PH01

Date Collected: 04/29/21 11:00
Date Received: 04/29/21 16:39

Lab Sample ID: 890-602-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2532	04/30/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 20:19	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 14:51	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	CH	XM
Soluble	Analysis	300.0		1	2608	05/03/21 18:14	CH	XM

Client Sample ID: PH01A

Date Collected: 04/29/21 11:10
Date Received: 04/29/21 16:39

Lab Sample ID: 890-602-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2532	04/30/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 20:40	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 15:14	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	CH	XM
Soluble	Analysis	300.0		1	2608	05/03/21 18:20	CH	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

Laboratory: Eurofins Xenco, Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-602-1
SDG: TE012921051

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: Thriller

Job ID: 890-602-1
SDG: TE012921051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-602-1	PH01	Solid	04/29/21 11:00	04/29/21 16:39	- 1
890-602-2	PH01A	Solid	04/29/21 11:10	04/29/21 16:39	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page 1 of 1

5/4/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com,Kalei.Jennings@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	Thriller	Turn Around	
Project Number:	TE012921051	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.2	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	7.0	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	4/29/2021	1100	1'	1	X	X	X
PH01A	S	4/29/2021	1110	2'	1	X	X	X

ANALYSIS REQUEST

890-602 Chain of Custody

Work Order Notes

Incident IDs: nAPP2108544357, nAPP2108546355, nAPP2110463633

Cost Center: 1067741001

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

Sample Comments

Page 17 of 20

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		4/29/21 1600	2		
3		4-29-21/16:13	4		
5			6		

Revised Date 051418 Rev. 2018 1

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

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: 890-192 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 #: 890-602-1
Address: 1211 W Florida Ave	Due Date Requested: 5/5/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Thriller	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X				X	
PH01 (890-602-1)	4/29/21	11 00 Mountain		Solid			X	X	X	1	
PH01A (890-602-2)	4/29/21	11 10 Mountain		Solid			X	X	X	1	

Preservation Codes

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

Other:

Note. Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested I II III IV Other (specify) — Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment.
Relinquished by: Cue Cuts 4-30-21	Date/Time:	Company	Received by: [signature]	Date/Time: 4-30-21 3:09 h	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-602-1
SDG Number: TE012921051

Login Number: 602
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: 890-602-1
SDG Number: TE012921051

Login Number: 602
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/30/21 02:14 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-603-1
Laboratory Sample Delivery Group: TE012921051
Client Project/Site: Thriller

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/4/2021 3:53:23 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: Thriller

Laboratory Job ID: 890-603-1
SDG: TE012921051

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 8
QC Sample Results 9
QC Association Summary 14
Lab Chronicle 16
Certification Summary 17
Method Summary 18
Sample Summary 19
Chain of Custody 20
Receipt Checklists 22

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-603-1
Project/Site: Thriller SDG: TE012921051

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-603-1
Project/Site: Thriller SDG: TE012921051

Job ID: 890-603-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-603-1

Receipt
The samples were received on 4/29/2021 4:13 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 2.0°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-2571 and analytical batch 880-2589 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

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: Thriller

Job ID: 890-603-1
SDG: TE012921051

Client Sample ID: PH02

Lab Sample ID: 890-603-1
Matrix: Solid
Date Collected: 04/29/21 11:20
Date Received: 04/29/21 16:13
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 21:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 21:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 21:00	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*04/30/21 10:10*	*05/01/21 21:00*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/30/21 10:10*	*05/01/21 21:00*	*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		04/30/21 16:30	05/01/21 15:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:35	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/30/21 16:30*	*05/01/21 15:35*	*1*
o-Terphenyl	*104*		*70 - 130*	*04/30/21 16:30*	*05/01/21 15:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.6**		4.98		mg/Kg			05/03/21 18:36	1

Client Sample ID: PH02A

Lab Sample ID: 890-603-2
Matrix: Solid
Date Collected: 04/29/21 11:30
Date Received: 04/29/21 16:13
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/30/21 13:50	05/01/21 06:20	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/30/21 13:50	05/01/21 06:20	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/30/21 13:50	05/01/21 06:20	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/30/21 13:50	05/01/21 06:20	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/30/21 13:50	05/01/21 06:20	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/30/21 13:50	05/01/21 06:20	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		04/30/21 13:50	05/01/21 06:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*04/30/21 13:50*	*05/01/21 06:20*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*04/30/21 13:50*	*05/01/21 06:20*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

Client Sample ID: PH02A

Lab Sample ID: 890-603-2

Date Collected: 04/29/21 11:30
Matrix: Solid
Date Received: 04/29/21 16:13
Sample Depth: - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:56	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*04/30/21 16:30*	*05/01/21 15:56*	*1*
o-Terphenyl	*118*		*70 - 130*	*04/30/21 16:30*	*05/01/21 15:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.7**		4.97		mg/Kg			05/03/21 17:10	1

Client Sample ID: PH03

Lab Sample ID: 890-603-3

Date Collected: 04/29/21 11:40
Matrix: Solid
Date Received: 04/29/21 16:13
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/30/21 13:50	05/01/21 06:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/30/21 13:50	05/01/21 06:40	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/30/21 13:50	05/01/21 06:40	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		04/30/21 13:50	05/01/21 06:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/30/21 13:50*	*05/01/21 06:40*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*04/30/21 13:50*	*05/01/21 06:40*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 16:18	1
Total TPH	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*04/30/21 16:30*	*05/01/21 16:18*	*1*
o-Terphenyl	*120*		*70 - 130*	*04/30/21 16:30*	*05/01/21 16:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**684**		50.4		mg/Kg			05/03/21 17:26	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

Client Sample ID: PH03A

Date Collected: 04/29/21 11:50
Date Received: 04/29/21 16:13
Sample Depth: - 2

Lab Sample ID: 890-603-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/30/21 15:09	05/01/21 07:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/30/21 15:09	05/01/21 07:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/30/21 15:09	05/01/21 07:01	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		04/30/21 15:09	05/01/21 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*04/30/21 15:09*	*05/01/21 07:01*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*04/30/21 15:09*	*05/01/21 07:01*	*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		04/30/21 16:30	05/01/21 16:39	1
Diesel Range Organics (Over C10-C28)	**71.2**	***+**	49.9		mg/Kg		04/30/21 16:30	05/01/21 16:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/30/21 16:30	05/01/21 16:39	1
Total TPH	**71.2**		49.9		mg/Kg		04/30/21 16:30	05/01/21 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*04/30/21 16:30*	*05/01/21 16:39*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/30/21 16:30*	*05/01/21 16:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1650**		25.1		mg/Kg			05/03/21 17:31	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

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)
890-603-1	PH02	106	107
890-603-2	PH02A	105	107
890-603-3	PH03	108	106
890-603-4	PH03A	106	106
LCS 880-2532/1-A	Lab Control Sample	108	105
LCS 880-2540/1-A	Lab Control Sample	98	106
LCS 880-2567/1-A	Lab Control Sample	104	101
LCSD 880-2532/2-A	Lab Control Sample Dup	106	105
LCSD 880-2540/2-A	Lab Control Sample Dup	101	104
LCSD 880-2567/2-A	Lab Control Sample Dup	106	102
MB 880-2519/5-A	Method Blank	90	90
MB 880-2531/5-A	Method Blank	102	103
MB 880-2532/5-A	Method Blank	100	98
MB 880-2540/5-A	Method Blank	102	100
MB 880-2567/5-A	Method Blank	93	91

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)
890-603-1	PH02	100	104
890-603-2	PH02A	106	118
890-603-3	PH03	113	120
890-603-4	PH03A	104	111
LCS 880-2571/2-A	Lab Control Sample	107	108
LCSD 880-2571/3-A	Lab Control Sample Dup	108	105
MB 880-2571/1-A	Method Blank	99	105

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2519/5-A
Matrix: Solid
Analysis Batch: 2544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2519

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 09:09	05/01/21 12:34	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 09:09	05/01/21 12:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*04/30/21 09:09*	*05/01/21 12:34*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*04/30/21 09:09*	*05/01/21 12:34*	*1*

Lab Sample ID: MB 880-2531/5-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:02	04/30/21 13:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 10:02	04/30/21 13:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 10:02	04/30/21 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/30/21 10:02*	*04/30/21 13:04*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*04/30/21 10:02*	*04/30/21 13:04*	*1*

Lab Sample ID: MB 880-2532/5-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2532

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 12:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 10:10	05/01/21 12:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*04/30/21 10:10*	*05/01/21 12:33*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*04/30/21 10:10*	*05/01/21 12:33*	*1*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

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

Lab Sample ID: LCS 880-2532/1-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2532

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1002		mg/Kg		100	70 - 130		
Toluene			0.100	0.1017		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1070		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2130		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1036		mg/Kg		104	70 - 130		

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

Lab Sample ID: LCSD 880-2532/2-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2532

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1002		mg/Kg		100	70 - 130	0	35
Toluene			0.100	0.1017		mg/Kg		102	70 - 130	0	35
Ethylbenzene			0.100	0.1038		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2092		mg/Kg		105	70 - 130	2	35
o-Xylene			0.100	0.1025		mg/Kg		102	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: MB 880-2540/5-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2540

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 13:50	05/01/21 00:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*04/30/21 13:50*	*05/01/21 00:58*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/30/21 13:50*	*05/01/21 00:58*	*1*

Lab Sample ID: LCS 880-2540/1-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2540

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09679		mg/Kg		97	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

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

Lab Sample ID: LCS 880-2540/1-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2540

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toluene			0.100	0.09743		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1008		mg/Kg		101	70 - 130		
m-Xylene & p-Xylene			0.200	0.2054		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.09986		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-2540/2-A
Matrix: Solid
Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2540

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1003		mg/Kg		100	70 - 130	4	35
Toluene			0.100	0.1026		mg/Kg		103	70 - 130	5	35
Ethylbenzene			0.100	0.1057		mg/Kg		106	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2159		mg/Kg		108	70 - 130	5	35
o-Xylene			0.100	0.1048		mg/Kg		105	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 880-2567/5-A
Matrix: Solid
Analysis Batch: 2544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2567

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/30/21 15:09	05/01/21 23:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/30/21 15:09	05/01/21 23:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/30/21 15:09	05/01/21 23:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/30/21 15:09	05/01/21 23:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/30/21 15:09	05/01/21 23:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/30/21 15:09	05/01/21 23:26	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		04/30/21 15:09	05/01/21 23:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*04/30/21 15:09*	*05/01/21 23:26*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*04/30/21 15:09*	*05/01/21 23:26*	*1*

Lab Sample ID: LCS 880-2567/1-A
Matrix: Solid
Analysis Batch: 2544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2567

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1113		mg/Kg		111	70 - 130		
Toluene			0.100	0.1050		mg/Kg		105	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

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

Lab Sample ID: LCS 880-2567/1-A
Matrix: Solid
Analysis Batch: 2544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2567

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			0.100	0.1041		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.2170		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1095		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-2567/2-A
Matrix: Solid
Analysis Batch: 2544

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2567

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1111		mg/Kg		111	70 - 130	0	35
Toluene			0.100	0.1045		mg/Kg		105	70 - 130	0	35
Ethylbenzene			0.100	0.1055		mg/Kg		105	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2224		mg/Kg		111	70 - 130	2	35
o-Xylene			0.100	0.1117		mg/Kg		112	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-2571/1-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2571

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		04/30/21 16:30	05/01/21 11:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 11:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 11:38	1
Total TPH	<50.0	U	50.0		mg/Kg		04/30/21 16:30	05/01/21 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*04/30/21 16:30*	*05/01/21 11:38*	*1*
o-Terphenyl	*105*		*70 - 130*	*04/30/21 16:30*	*05/01/21 11:38*	*1*

Lab Sample ID: LCS 880-2571/2-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2571

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1159		mg/Kg		116	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

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

Lab Sample ID: LCS 880-2571/2-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2571

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	1112		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-2571/3-A
Matrix: Solid
Analysis Batch: 2589

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 2571

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1057		mg/Kg		106	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1325	*+	mg/Kg		132	70 - 130	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2556/1-A
Matrix: Solid
Analysis Batch: 2608

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/03/21 15:17	1

Lab Sample ID: LCS 880-2556/2-A
Matrix: Solid
Analysis Batch: 2608

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	263.2		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-2556/3-A
Matrix: Solid
Analysis Batch: 2608

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	258.2		mg/Kg		103	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

GC VOA

Prep Batch: 2519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2519/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 2530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	8021B	2532
890-603-2	PH02A	Total/NA	Solid	8021B	2540
890-603-3	PH03	Total/NA	Solid	8021B	2540
890-603-4	PH03A	Total/NA	Solid	8021B	2567
MB 880-2531/5-A	Method Blank	Total/NA	Solid	8021B	2531
MB 880-2532/5-A	Method Blank	Total/NA	Solid	8021B	2532
MB 880-2540/5-A	Method Blank	Total/NA	Solid	8021B	2540
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	8021B	2532
LCS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	8021B	2540
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2532
LCSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2540

Prep Batch: 2531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2531/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 2532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	5035	
MB 880-2532/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2532/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2532/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 2540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-2	PH02A	Total/NA	Solid	5035	
890-603-3	PH03	Total/NA	Solid	5035	
MB 880-2540/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2519/5-A	Method Blank	Total/NA	Solid	8021B	2519
MB 880-2567/5-A	Method Blank	Total/NA	Solid	8021B	2567
LCS 880-2567/1-A	Lab Control Sample	Total/NA	Solid	8021B	2567
LCSD 880-2567/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2567

Prep Batch: 2567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-4	PH03A	Total/NA	Solid	5035	
MB 880-2567/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2567/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2567/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

GC Semi VOA

Prep Batch: 2571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	8015NM Prep	
890-603-2	PH02A	Total/NA	Solid	8015NM Prep	
890-603-3	PH03	Total/NA	Solid	8015NM Prep	
890-603-4	PH03A	Total/NA	Solid	8015NM Prep	
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Total/NA	Solid	8015B NM	2571
890-603-2	PH02A	Total/NA	Solid	8015B NM	2571
890-603-3	PH03	Total/NA	Solid	8015B NM	2571
890-603-4	PH03A	Total/NA	Solid	8015B NM	2571
MB 880-2571/1-A	Method Blank	Total/NA	Solid	8015B NM	2571
LCS 880-2571/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2571
LCSD 880-2571/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2571

HPLC/IC

Leach Batch: 2556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Soluble	Solid	DI Leach	
890-603-2	PH02A	Soluble	Solid	DI Leach	
890-603-3	PH03	Soluble	Solid	DI Leach	
890-603-4	PH03A	Soluble	Solid	DI Leach	
MB 880-2556/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-603-1	PH02	Soluble	Solid	300.0	2556
890-603-2	PH02A	Soluble	Solid	300.0	2556
890-603-3	PH03	Soluble	Solid	300.0	2556
890-603-4	PH03A	Soluble	Solid	300.0	2556
MB 880-2556/1-A	Method Blank	Soluble	Solid	300.0	2556
LCS 880-2556/2-A	Lab Control Sample	Soluble	Solid	300.0	2556
LCSD 880-2556/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2556

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-603-1
Project/Site: Thriller SDG: TE012921051

Client Sample ID: PH02 — Lab Sample ID: 890-603-1

Date Collected: 04/29/21 11:20 **Matrix: Solid**
Date Received: 04/29/21 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2532	04/30/21 10:10	MR	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 21:00	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 15:35	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	CH	XM
Soluble	Analysis	300.0		1	2608	05/03/21 18:36	CH	XM

Client Sample ID: PH02A — Lab Sample ID: 890-603-2

Date Collected: 04/29/21 11:30 **Matrix: Solid**
Date Received: 04/29/21 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 06:20	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 15:56	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	CH	XM
Soluble	Analysis	300.0		1	2608	05/03/21 17:10	CH	XM

Client Sample ID: PH03 — Lab Sample ID: 890-603-3

Date Collected: 04/29/21 11:40 **Matrix: Solid**
Date Received: 04/29/21 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 06:40	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 16:18	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	CH	XM
Soluble	Analysis	300.0		10	2608	05/03/21 17:26	CH	XM

Client Sample ID: PH03A — Lab Sample ID: 890-603-4

Date Collected: 04/29/21 11:50 **Matrix: Solid**
Date Received: 04/29/21 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2567	04/30/21 15:09	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 07:01	MR	XM
Total/NA	Prep	8015NM Prep			2571	04/30/21 16:30	DM	XM
Total/NA	Analysis	8015B NM		1	2589	05/01/21 16:39	AJ	XM
Soluble	Leach	DI Leach			2556	04/30/21 14:42	CH	XM
Soluble	Analysis	300.0		5	2608	05/03/21 17:31	CH	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: Thriller

Job ID: 890-603-1
SDG: TE012921051

Laboratory: Eurofins Xenco, Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Thriller

Job ID: 890-603-1
SDG: TE012921051

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: Thriller

Job ID: 890-603-1
SDG: TE012921051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-603-1	PH02	Solid	04/29/21 11:20	04/29/21 16:13	- 1
890-603-2	PH02A	Solid	04/29/21 11:30	04/29/21 16:13	- 2
890-603-3	PH03	Solid	04/29/21 11:40	04/29/21 16:13	- 1
890-603-4	PH03A	Solid	04/29/21 11:50	04/29/21 16:13	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page \ of \

5/4/2021

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com,Kalei.Jennings@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	Thriller	Turn Around	
Project Number:	TE012921051	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.7	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH02	S	4/29/2021	1120	1'	1	X	X	X
PH02A	S	4/29/2021	1130	2'	1	X	X	X
PH03	S	4/29/2021	1140	1'	1	X	X	X
PH03A	S	4/29/2021	1150	2'	1	X	X	X

ANALYSIS REQUEST

890-603 Chain of Custody

Work Order Notes

Incident IDs: nAPP2108544357, nAPP2108546355, nAPP2110463633

Cost Center: 1067741001

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		4/29/21 1610	2		
3		4-29-21 16:13	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: 890-192.1
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 #: 890-603-1
Address: 1211 W Florida Ave	Due Date Requested: 5/5/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Thriller	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X				X	
PH02 (890-603-1)	4/29/21	11 20 Mountain		Solid			X	X	X	1	
PH02A (890-603-2)	4/29/21	11 30 Mountain		Solid			X	X	X	1	
PH03 (890-603-3)	4/29/21	11 40 Mountain		Solid			X	X	X	1	
PH03A (890-603-4)	4/29/21	11 50 Mountain		Solid			X	X	X	1	

Preservation Codes

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

Other:

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*

Deliverable Requested I II III IV Other (specify) | Primary Deliverable Rank. 2

Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:	
Relinquished by: Cec Curtis 4-30-21	Date/Time:	Company	Received by: [signature]	Date/Time: 4-30-21 3:00PM	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-603-1
SDG Number: TE012921051

Login Number: 603
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: 890-603-1
SDG Number: TE012921051

Login Number: 603
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Midland
List Creation: 04/30/21 02:15 PM

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

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 30650

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 30650
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2110463633 THRILLER BATTERY, thank you. This closure is approved.	8/10/2021