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	NAPP2108246073
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**

Longitude

	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		

Page	2
rage	4

## Oil Conservation Division

Incident ID	NAPP2108246073
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes No	
If YES, was immediate no	otice 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: aldrian Daks	Date:
email:	Telephone:
OCD Only	
Received by:	Date:

Location:	Nash Deep East CTB			
Spill Date:	3/9/2021			
	Area 1			
Approximate A	rea =	263.00	sq. ft.	
Average Satura	tion (or depth) of spill =	1.50	inches	
Average Porosi	Average Porosity Factor = 0.15			
	VOLUME OF LEAK			
Total Produced Water = 5.88			bbls	
TOTAL VOLUME OF LEAK				
Total Produced Water = 5.88 bb			bbls	
TOTAL VOLUME RECOVERED				
<b>Total Produced</b>	Water =	5.00	bbls	

Received by OCD: 6/7/2021 9:53:40 AM Form C-141 State of New Mexico

Oil Conservation Division

	Page 4 of 9
Incident ID	NAPP2108246073
District RP	
Facility ID	
Application ID	

# Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>50-110</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🛛 Yes 🗌 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🛛 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	🗌 Yes 🔀 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- $\square$  Depth to water determination
- Determination of water sources and significant watercourses within <sup>1</sup>/<sub>2</sub>-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

.

Page 3

Received by OCD: 6/7/2022	1 9:53:40 AM State of New Mexico				Page 5 of 9
				Incident ID	NAPP2108246073
Page 4	Oil Conservation Divisio	Oil Conservation Division		District RP	
				Facility ID	
				Application ID	
regulations all operators are public health or the environm failed to adequately investige addition, OCD acceptance of and/or regulations. Printed Name:	mation given above is true and complete to required to report and/or file certain release nent. The acceptance of a C-141 report by t ate and remediate contamination that pose a f a C-141 report does not relieve the operato <u></u>	notifications and he OCD does not threat to groundw or of responsibility Title: Date:	perform co relieve the vater, surfac for compli <u>Environr</u> <u>5/30/2021</u>	rective actions for rele operator of liability sh e water, human health ance with any other fe nental Manager	eases which may endanger ould their operations have or the environment. In
OCD Only Received by:		Da	te:		

Received by OCD: 6/7/2021 9:53:40 AM Form C-141 State of New Mexico

Oil Conservation Division

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

Incident ID	NAPP2108246073
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

<ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>						
<b>Deferral Requests Only:</b> Each of the following items must be con	firmed as part of any request for deferral of remediation.					
Contamination must be in areas immediately under or around prodeconstruction.						
$\boxtimes$ Extents of contamination must be fully delineated.						
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.					
I hereby certify that the information given above is true and complet rules and regulations all operators are required to report and/or file c which may endanger public health or the environment. The acceptan liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local la Printed Name:	ertain release notifications and perform corrective actions for releases nee of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, neceptance of a C-141 report does not relieve the operator of					
OCD Only						
Received by:	Date:					
Approved Approved with Attached Conditions of A	Approval Denied Deferral Approved					
Signature:	Date:					

Page 5

Received by OCD: 6/7/2021 9:53:40 AM Form C-141 State of New Mexico

Oil Conservation Division

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

Incident ID	NAPP2108246073
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

<ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>						
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.						
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.						
Extents of contamination must be fully delineated.						
Contamination does not cause an imminent risk to human health, the environment, or groundwater.						
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.						
Printed Name: Kyle Littrell Title: Environmental Manager						
Signature: Date: Date:						
email: kyle_littrell@exxonmobil.com Telephone: (432) 221 - 7331						
OCD Only						
Received by: Robert Hamlet Date: 9/9/2021						
Approved Approved with Attached Conditions of Approval Denied X Deferral Approved						
Signature: Robert Hamlet Date: 9/9/2021						

Page 5

WSP USA

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

June 2, 2021

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

RE: Deferral Request Nash Deep East Incident Number NAPP2108246073 Eddy County, New Mexico

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the Nash Deep East (Site) in Unit P, Section 18, Township 23 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of produced water at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NAPP2108246073.

#### **RELEASE BACKGROUND**

On March 9, 2021, a pinhole leak on a 4-inch Victaulic tee connection, resulted in the release of 5.88 barrels (bbls) of produced water onto the surface of the well pad, around and beneath active production equipment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on March 23, 2021. The release was assigned Incident Number NAPP2108246073.

#### 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 321742103552601, located approximately 0.5 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 66 feet bgs and an unknown total depth. Ground surface

District II Page 2

elevation at the groundwater well location is 3,862 feet above mean sea level (amsl), which is approximately 95 feet lower 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. The closest continuously flowing or significant watercourse to the Site is an intermittent wash, located approximately 258 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetlands. 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 underlain by unstable geology (high potential karst designation area). Site receptors are identified on Figure 1.

#### **CLOSURE CRITERIA**

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

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

#### SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On April 8, 2021, WSP personnel were on Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. The release occurred in area of dense active production equipment. Visible surface staining was observed adjacent to and beneath the active production equipment. WSP personnel collected three preliminary assessment soil samples (SS01 through SS03) within the release extent at a depth of 0.5 feet bgs to assess the lateral extent of impacted soil. Samples SS01 and SS02 were collected in a walkway between active production equipment and pipelines as seen in the photographic log in Attachment 2. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach<sup>®</sup> chloride QuanTab<sup>®</sup> test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-gasoline range

District II Page 3

organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated that chloride concentrations exceeded the Closure Criteria. Soil sample SS03 also exceeded the Closure Criteria for TPH. Based on the laboratory analytical results, excavation and delineation activities were warranted.

#### **EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES**

On April 28, 2021, WSP personnel returned to the Site to oversee excavation and delineation activities as indicated by visual observations and laboratory analytical results for the preliminary soil samples. Excavation activities were completed in the areas of the release that were accessible with a hydrovacuum truck. Impacted soil was removed in the areas surrounding preliminary soil samples SS01 and SS02. Soil sample SS03 was located in an area that was inaccessible to excavate mechanically or otherwise, due to the presence of active production equipment and surface pipelines. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any on-site production equipment. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation measured approximately 51 square feet in area and was completed to a depth of 2.5 feet bgs, resulting in approximately 5 cubic feet of soil being removed. Following removal of impacted soil to the extent possible, WSP collected one 5-point composite soil sample, FS01, from the excavation. The 5-point composite sample was collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the sample by thoroughly mixing. Due to the small size of the excavation, the soil sample represented the floor and sidewalls of the excavation. The excavation soil sample was collected, handled, and analyzed as described above. The excavation extent and excavation sample location are depicted on Figure 3. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 2.

Potholes were advanced via track mounted backhoe at four locations around the release extent and production equipment to delineate the lateral extent of impacted soil left in place adjacent to and beneath active equipment, including the area represented by preliminary sample SS03. Potholes PH01 through PH04 were advanced to a depth of 2.5 feet bgs and discrete delineation soil samples (PH01/PH01A through PH04/PH04A) were collected from each pothole at depths of 1-foot and 2.5 feet bgs. The delineation soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach<sup>©</sup> chloride QuanTab<sup>©</sup> test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation soil samples were handled and analyzed as described above. The pothole and delineation soil sample locations are depicted on Figure 4.

District II Page 4

XTO backfilled the excavation once the confirmation soil sample analytical results were received and reviewed. The excavation was backfilled with locally purchased caliche and contoured to match site conditions. Photographic documentation was conducted following the completion of the backfill. A photographic log is included in Attachment 2.

#### ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated that chloride concentrations exceeded the Closure Criteria. Soil sample SS03 also exceeded the Closure Criteria for TPH.

Laboratory analytical results for excavation soil sample FS01, collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH04, collected outside of the release extent and surrounding production equipment, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

#### **DEFERRAL REQUEST**

A total of approximately 5 cubic yards of impacted soil was excavated from the Site; however, residual impacted soil was left in place immediately surrounding and beneath active production equipment for compliance with XTO safety policy regarding earth moving activities within 2 feet of active equipment. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation near production equipment. This policy was enforced where impacted soil was identified within 2 feet of active production equipment.

The impacted soil remaining in place is delineated vertically by excavation soil sample FS01 and laterally by delineation soil samples from potholes PH01 through PH04. An estimated 40 cubic yards of impacted soil remains in place, assuming a maximum depth of 2.5 feet based on the excavation and delineation soil samples listed above, that were compliant with the Closure Criteria. The deferral request area is shown on the attached Figure 4.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately surrounding and beneath active production equipment, and no saturated soil remains in-place. XTO requests deferral of final remediation for Incident Number NAPP2108246073.

wsp

District II Page 5

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

Sincerely,

WSP USA Inc.

Kaleb Henry

Kaleb Henry Assistant Consultant, Geologist

Ashley L. Ager

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

cc: Kyle Littrell, XTO Bureau of Land Management

Attachments:

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

# FIGUR









#### Table 1

#### Soil Analytical Results Nash Deep East Incident Number NAPP2108246073 XTO Energy, Inc. Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Cl	osure Criteria (NM	AC 19.15.29)	10	50	NE	NE	NE	NE	100	600
Preliminary Sample	S									
SSO1	04/08/2021	0.5	< 0.00201	< 0.00201	<50.0	84.2	<50.0	84.2	84.2	13,800
SS02	04/08/2021	0.5	< 0.00200	< 0.00200	<49.9	67.2	<49.9	67.2	67.2	13,000
SS03	04/08/2021	0.5	< 0.00200	< 0.00200	3,780	79.0	442	3,859	4,300	5,930
Excavation Samples										
FS01	04/28/2021	2.5	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	108
<b>Delineation Samples</b>	5									
PH01	04/28/2021	1	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	15.2
PH01A	04/28/2021	2.5	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
PH02	04/28/2021	1	< 0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	17.9
PH02A	04/28/2021	2.5	< 0.00198	< 0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	< 5.05
PH03	04/28/2021	1	< 0.00201	< 0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	137
PH03A	04/28/2021	2.5	< 0.00201	< 0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	53.3
PH04	04/28/2021	1	< 0.00200	< 0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	199
PH04A	04/28/2021	2.5	< 0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	37.3

#### Notes

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

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

NE - Not Established

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

#### **DESCRIPTION:**

Latitude 32°17'42", Longitude 103°55'26" NAD27 Eddy County, New Mexico , Hydrologic Unit 13060011 Well depth: 100 feet Land surface altitude: 3,034 feet above NAVD88. Well completed in "Other aquifers" (N9999OTHER) national aquifer. Well completed in "Rustler Formation" (312RSLR) local aquifer

#### AVAILABLE DATA:

Data Type	<b>Begin Date</b>	End Date	Count	
Field groundwater-level measurements	1959-02-06	1993-05-06	8	
Field/Lab water-quality samples	1972-09-20	1972-09-20	1	
Revisions	Loading			

#### **OPERATION:**

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



				2=NE 3=SV est to largest		(NAD83 UT	TM in meters)	
	OD Number		14 - C. M. M.	ec Tws	-	X	Y	
C	03478 POD1	3	2 1 .	21 238	30E	604638	3573670	
Driller License		Driller (	Company					
Driller Name:	JUSTIN MULLI	NS						
Drill Start Dat	e: 06/07/2016	Drill Fin	nish Date	: 06	/27/2016	Plu	g Date:	
Log File Date:	07/11/2016	PCW Re	cv Date:			So	arce:	Shallow
Pump Type:		Pipe Dis	charge S	ize:		Est	timated Yield:	5 GPM
Casing Size:	6.00	Depth W	Vell:	23	0 feet	De	pth Water:	105 feet
w	ater Bearing Stratif	ications:	Top	Bottom	Descript	tion		
			105	112	Shale/M	udstone/S	iltstone	
	Casing Perf	orations:	Тор	Bottom				
	- and the		170					

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

PHOTOGRAPHIC LOG			
XTO Energy, Inc	Nash Deep East	TE012921038	
	Eddy County, New Mexico		







	PHOTOGRAPHIC LOG	
XTO Energy, Inc	Nash Deep East	TE012921038
	Eddy County, New Mexico	

Photo No.	Date	1 The
3	April 28, 2021	
South facing v	iew of excavation	
ez	xtent.	
		S DI
		ne el
		- 11
		- Theorem
		· · · · · ·
		the second second
		. E.F.
		1



	_	
Photo No.	Date	
4	May 12, 2021	
South facing vi	ew of excavation	
extent follow	ing backfilling	
	edures.	
proce		
		and all the second the second the second sec
		and the second
		and the second
		and the second state of the second state of the
		the second s
		and the second

					MS	P USA		BH or PH Name:		ate:	
								PH01		28/2021	
				5	08 West S Isbad, Ne	Stevens S	sezzo	Site Name: Nash Deep		40070	
				Cal	isbau, ne	W WEXICO	00220	RP or Incident Number: NAPP2108246073 LTE Job Number: TE012921038			
		1.177.1			CAND		<u>_</u>				
Lat/Lo	na:	LIIH		SIC / SOIL	Field Scre		9	Logged By: EL Hole Diameter:		ethod: Backhoe otal Depth:	
Lai/L0	ng.				Chloride, I	-			2.5		
Comm	ients:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth	Deptin	USCS/Rock Symbol	Liti	hology/Ren	narks	
Moi	ChI (p	Va (p	Sta	Sam	(ft bgs)	(ft bgs)					
m	<184.8	0.1	n	PH01	1'	0	SM	noist, brown, well gi grain, no stain, no c		che gravel (0.1 - 3	3cm), fine -
m	<184.8	0.1	n	PH01A	2.5'	2					
					-	-					
					-	-  -					
					-	-					
					-	-					
					-	-					
					-	-					
					-	-					
					-	-					
					- - -	-  -					
					-   -	- - -					
					- - -	-					
					-	- - -					
					-	-			T	otal Depth: 2.5 fe	et bgs
						-					

						DUCA			BH or PH Name:	D	ate:	
					WS	P USA			PH02	4/	/28/2021	
				5	08 West S Isbad, Ne	Stevens S	treet		Site Name: Nash Deep	East		
				Car	isbad, Ne	w Mexico	88220		RP or Incident Number: NAPP2108246073			
									LTE Job Number: TE012921038			
	_	LITH	OLO	SIC / SOIL			G	_	Logged By: EL		lethod: Backhoe	
Lat/Lo	ng:				Field Scre	-			Hole Diameter:		otal Depth:	
Comm	onto:				Chloride, I	PID				2.	.5'	
Comm	ients:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Lit	thology/Rei	marks	
m	<184.8	0.2	n	PH02	1'	0	SM		noist, brown, well g grain, no stain, no e		che gravel (0.1 -	3cm), fine -
m	<184.8	0.2	n	PH02A	2.5'	2						
					-	- - - -						
					-	- - - -						
					-	- - -						
					-	- - -						
						- - -						
						- - -						
					-	- - -						
					-	-				Т	otal Depth: 2.5 f	eet bgs
					-	-						

					WS	P USA		BH or PH Name:		Date:	
								PH03		4/28/2021	
				5 Car	08 West S Isbad, Ne	Stevens S w Mexico	street 88220	Site Name: Nash Deep		040070	
				- Our			00220	RP or Incident Number: NAPP2108246073 LTE Job Number: TE012921038			
		LITL		SIC / SOIL	SAMD		6			Method: Backhoe	
Lat/Lo	na:			00 / 301L	Field Scre			Logged By: EL Hole Diameter:		Total Depth:	
LavLO	ng.				Chloride, I					2.5'	
Comm	ents:										
				-11			×				
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		thology/Re		
m	218.4	0.1	n	PH03	1'	0	SM	noist, brown, well g grain, no stain, no		iche gravel (0.1 - 30	cm), fine -
m	<184.8	0.1	n	PH03A	2.5'	2					
					-	- - -					
					-	-  -					
					-	-					
					-	-					
					-	-  -					
					-	- - -					
					-	- - -					
					-	-					
						- - -					
					- - -	-				Total Danth: 0.5 ft.	thac
						-				Total Depth: 2.5 fee	t dgs
					-	- 					

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 LITHOLOGIC / SOIL SAMPLING LOG							BH or PH Name: PH04 Site Name: Nash Deep RP or Incident Numbe LTE Job Number: TE0	p East r: NAPP2108 012921038			
Lot/Long	LITHC					G		Logged By EL		Method: Backhoe	
Lat/Long:				Field Scre Chloride, F				Hole Diameter:		Total Depth: 2.5'	
Comments:				onionae, i							
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	y USCS/Rock ≅ Symbol	SAND r	Li noist, brown, well g	ithology/Re		1 - 3cm) fine -
m <184.8	0.2	n	PH04	یر - 1' _	1 - 1 - 2	Sivi		grain, no stain, no		iiche graver (o	1 - John, nine -
m <184.8	0.2	n	PH04A							Total Depth: 2	.5 feet bgs



Environment Testing America

# ANALYTICAL REPORT

Job Number: 890-507-1 SDG Number: TE012921038 Job Description: Nash Deep East

For: WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, TX 75207 Attention: Dan Moir

AMER

Approved for release. Jessica Kramer Project Manager 4/19/2021 11:26 AM

Jessica Kramer, Project Manager 1211 W. Florida Ave, Midland, TX, 79701 jessica.kramer@eurofinset.com 04/19/2021

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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.

Eurofins Xenco, Carlsbad 1089 N Canal St., Carlsbad, NM 88220 Tel (575) 988-3199 Fax (575) 988-3199 <u>www.EurofinsUS.com</u>



## **Client Sample Result Summary**

Client: WSP USA Inc. Project/Site: Nash Deep East

Lab Sample ID:	890-507-1	890-507-2	890-507-3
Client Sample ID:	SSO1	SS02	SS03
Depth:	0.5	0.5	0.5
Matrix:	Solid	Solid	Solid
Date Collected:	04/08/2021 12:36	04/08/2021 12:38	04/08/2021 12:40

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

	Prepared: Analyzed:	04/12/2021 09:50 04/12/2021 15:34		04/12/2021 0 04/12/2021 1		04/12/2021 09:50 04/12/2021 16:15		
Analyte	Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	
Benzene		<0.00201 U *1	0.00201	<0.00200 U *1	0.00200	<0.00200 U *1	0.00200	
Toluene		<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00200 U	0.00200	
Ethylbenzene		<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00200 U	0.00200	
m-Xylene & p-Xylene		<0.00402 U	0.00402	<0.00400 U	0.00400	<0.00401 U	0.00401	
o-Xylene		<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00200 U	0.00200	
Xylenes, Total Total BTEX		<0.00402 U <0.00201 U	0.00402 0.00201	<0.00400 U <0.00200 U	0.00400 0.00200	<0.00401 U <0.00200 U	0.00401 0.00200	
IOUUI DI EX		40.00201 0	0.00201	40.00200 0	0.00200	40.00200 0	0.00200	

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

	•	04/09/2021 15:09 04/11/2021 06:04		04/09/2021 1 04/11/2021 00		04/09/2021 15:09 04/11/2021 06:53	
Analyte	Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		84.2	50.0	67.2	49.9	79.0	49.8
Diesel Range Organics (Ov C10-C28)	ver	<50.0 U *1	50.0	<49.9 U *1	49.9	3780 *1	49.8
Oll Range Organics (Over C28-C36)		<50.0 U	50.0	<49.9 U	49.9	442	49.8
Total TPH		84.2	50.0	67.2	49.9	4300	49.8

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

	Prepared:							
	Analyzed:	04/18/2021 15:33		04/18/2021	15:48	04/18/2021 15:53		
Analyte	Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	
Chloride		13800	99.6	13000	101	5930	49.7	

Job ID: 890-507-1 SDG: TE012921038

# 🔅 eurofins

# Environment Testing America

# **ANALYTICAL REPORT**

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

# Laboratory Job ID: 890-507-1

Laboratory Sample Delivery Group: TE012921038 Client Project/Site: Nash Deep East

# For:

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

Attn: Dan Moir

RAMER

Authorized for release by: 4/19/2021 11:27:24 AM

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

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

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

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

Laboratory Job ID: 890-507-1 SDG: TE012921038

# **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	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	20

2

Page 36 of 90

	Definitions/Glossary	1
Client: WSP U Project/Site: N		2
Qualifiers		3
		ు
GC VOA Qualifier	Qualifier Description	4
*1	LCS/LCSD RPD exceeds control limits.	
S1+	Surrogate recovery exceeds control limits, high biased.	5
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA	-	6
Qualifier		_
*1	LCS/LCSD RPD exceeds control limits.	
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		8
Qualifier	Qualifier Description	
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not	9
U	applicable. Indicates the analyte was analyzed for but not detected.	
		10
Glossary		11
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤ % D	Listed under the "D" column to designate that the result is reported on a dry weight basis	12
%R CFL	Percent Recovery Contains Free Liquid	
CFU	Colony Forming Unit	13
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	11
Dil Fac	Dilution Factor	14
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 QC	Presumptive Quality Control	
RER	Quality Control 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 Pactor (Dioxin)	
TNTC	Too Numerous To Count	

.
Job ID: 890-507-1 SDG: TE012921038

#### Job ID: 890-507-1

#### Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-507-1

#### Receipt

The samples were received on 4/8/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

#### **Receipt Exceptions**

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SSO1 (890-507-1), SSO2 (890-507-2) and SSO3 (890-507-3).

#### GC VOA

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

#### GC Semi VOA

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-1597 and analytical batch 880-1612 recovered outside control limits for the following analytes: < Diesel Range Organics (Over C10-C28)>.

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

#### HPLC/IC

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

Job ID: 890-507-1 SDG: TE012921038

## Lab Sample ID: 890-507-1

Matrix: Solid

5

Client Sample ID: SSO1 Date Collected: 04/08/21 12:36 Date Received: 04/08/21 16:00 Sample Depth: - 0.5

Project/Site: Nash Deep East

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			04/12/21 09:50	04/12/21 15:34	1
1,4-Difluorobenzene (Surr)	98		70 - 130			04/12/21 09:50	04/12/21 15:34	1
Method: 8015B NM - Diesel Rang Analyte		RO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	84.2		50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Total TPH	84.2		50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			04/09/21 15:09	04/11/21 06:04	1
o-Terphenyl	86		70 - 130			04/09/21 15:09	04/11/21 06:04	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
			99.6	mg/Kg			04/18/21 15:33	20

#### **Client Sample ID: SS02** Date Collected: 04/08/21 12:38

Date Received: 04/08/21 16:00

Sample Depth: - 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			04/12/21 09:50	04/12/21 15:54	1
1,4-Difluorobenzene (Surr)	100		70 - 130			04/12/21 09:50	04/12/21 15:54	1

Released to Imaging: 9/9/2021 8:38:37 AM

Matrix: Solid

Lab Sample ID: 890-507-2

04/18/21 15:48

Lab Sample ID: 890-507-3

20

Matrix: Solid

## **Client Sample Results**

Job ID: 890-507-1 SDG: TE012921038

#### **Client Sample ID: SS02**

Project/Site: Nash Deep East

Date Collected: 04/08/21 12:38 Date Received: 04/08/21 16:00

Sample Depth: - 0.5

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	67.2		49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U *1	49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
Total TPH	67.2		49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			04/09/21 15:09	04/11/21 06:32	1
o-Terphenyl	88		70 - 130			04/09/21 15:09	04/11/21 06:32	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

101

mg/Kg

13000

#### **Client Sample ID: SS03**

Chloride

Date Collected: 04/08/21 12:40 Date Received: 04/08/21 16:00 Sample Depth: - 0.5

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			04/12/21 09:50	04/12/21 16:15	1

1,4-Difluorobenzene (Surr)	94		70 - 130			04/12/21 09:50	04/12/21 16:15	1
– Method: 8015B NM - Diesel Rai	nge Organics (DF	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	79.0		49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Diesel Range Organics (Over C10-C28)	3780	*1	49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Oll Range Organics (Over C28-C36)	442		49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Total TPH	4300		49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			04/09/21 15:09	04/11/21 06:53	1
o-Terphenyl	80		70 - 130			04/09/21 15:09	04/11/21 06:53	1
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5930		49.7	mg/Kg			04/18/21 15:53	10

Eurofins Xenco, Carlsbad

Page 39 of 90

Matrix: Solid

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

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		5
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
890-507-1	SSO1	123	98		
890-507-1 MS	SSO1	127	109		6
890-507-1 MSD	SSO1	126	111		
890-507-2	SS02	114	100		
890-507-3	SS03	132 S1+	94		
LCS 880-1645/1-A	Lab Control Sample	140 S1+	106		8
LCSD 880-1645/2-A	Lab Control Sample Dup	115	104		
MB 880-1645/5-A	Method Blank	98	98		9
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Percent Surrogate Recovery (Acceptance Limi
1CO1 OTPH1
Client Sample ID (70-130) (70-130)
7-1 SSO1 86 86
07-2 SS02 96 88
07-3 SS03 80 80
380-1597/2-A Lab Control Sample 96 90
880-1597/3-A Lab Control Sample Dup 100 93
30-1597/1-A Method Blank 107 109

#### Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Job ID: 890-507-1

SDG: TE012921038

Prep Type: Total/NA

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

Matrix: Solid Analysis Batch: 1640

Analysis Batch: 1640							Ргер Вато	n: 1645
	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			04/12/21 09:50	04/12/21 15:13	1
1,4-Difluorobenzene (Surr)	98		70 - 130			04/12/21 09:50	04/12/21 15:13	1

#### Lab Sample ID: LCS 880-1645/1-A Matrix: Solid

#### Analysis Batch: 1640

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1236		mg/Kg		124	70 - 130	
Toluene	0.100	0.08929		mg/Kg		89	70 - 130	
Ethylbenzene	0.100	0.08838		mg/Kg		88	70 - 130	
m-Xylene & p-Xylene	0.200	0.1707		mg/Kg		85	70 - 130	
o-Xylene	0.100	0.08714		mg/Kg		87	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

115

#### Lab Sample ID: LCSD 880-1645/2-A Matrix: Solid

4-Bromofluorobenzene (Surr)

Matrix: Solid										ype: To	
Analysis Batch: 1640			0	1.000	1.000					p Batch	
			Spike		LCSD		_		%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.100	0.08050	*1	mg/Kg		80	70 - 130	42	35
Toluene			0.100	0.08131		mg/Kg		81	70 _ 130	9	35
Ethylbenzene			0.100	0.09256		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1873		mg/Kg		94	70 - 130	9	35
o-Xylene			0.100	0.09958		mg/Kg		100	70 - 130	13	35
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								

1,4-Difluorobenzene (Surr)	104		70 - 130							
Lab Sample ID: 890-507-1 MS Matrix: Solid										nple ID: SSO1 Type: Total/NA
Analysis Batch: 1640										p Batch: 1645
· · · · · · <b>,</b> · · · · · · · · · · · · · · · · · · ·	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U *1	0.0996	0.1011		mg/Kg		102	70 - 130	

70 - 130

Eurofins Xenco, Carlsbad

Client Sample ID: Lab Control Sample Dup

Released to Imaging: 9/9/2021 8:38:37 AM

Client: WSP USA Inc. Project/Site: Nash Deep East

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

Matrix: Solid											Je. 10	tal/NA
Analysis Batch: 1640											Batch	: 1645
	Sample			Spike		MS				%Rec.		
Analyte	Result		ifier	Added		Qualifier	Unit	D	%Rec	Limits		
Toluene	<0.00201			0.0996	0.09984		mg/Kg		100	70 - 130		
Ethylbenzene	<0.00201	U		0.0996	0.1060		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene	<0.00402	U		0.199	0.2184		mg/Kg		110	70 - 130		
o-Xylene	<0.00201	U		0.0996	0.1227		mg/Kg		123	70 - 130		
	MS	MS										
Surrogate	%Recovery	Qua	lifier	Limits								
4-Bromofluorobenzene (Surr)	127			70 - 130								
1,4-Difluorobenzene (Surr)	109			70 - 130								
Lab Sample ID: 890-507-1 MSD										Client Samp	le ID:	sso <sup>,</sup>
Matrix: Solid										Prep Ty		
Analysis Batch: 1640											Batch	
,	Sample	Sam	ple	Spike	MSD	MSD				%Rec.		RPI
Analyte	Result			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limi
Benzene	<0.00201	U *1		0.0996	0.1036		mg/Kg		104	70 _ 130	2	3
Toluene	<0.00201	U		0.0996	0.1007		mg/Kg		101	70 <sub>-</sub> 130	1	3
Ethylbenzene	<0.00201			0.0996	0.1050		mg/Kg		105	70 - 130	1	3
m-Xylene & p-Xylene	< 0.00402			0.199	0.2161		mg/Kg		108	70 - 130	1	3
o-Xylene	<0.00201	U		0.0996	0.1208		mg/Kg		121	70 - 130	2	3
	MSD	MSD	1									
Surrogate	%Recovery	Qua	lifier	Limits								
4-Bromofluorobenzene (Surr)	126			70 - 130								
4 4 D'fl	111											
1,4-Difluorobenzene (Surr)				70 - 130								
Iethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612	Range Oi	rgar	iics (DR						Client S	Gample ID: Mo Prep Ty Prep		tal/NA
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid	Range Oi	rgar	nics (DR						Client S	Prep Ty	be: To	tal/NA
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid	Range Oi A		мв			Unit		DI	Client S Prepared	Prep Ty	be: To Batch	tal/NA
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612 Analyte Gasoline Range Organics	Range Or A	мв	MB Qualifier	O) (GC)		Unit mg/K				Prep Typ Prep Analyzed	be: To Batch	tal/N/ : 1597 Dil Fa
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Range Or A R	MB esult	MB Qualifier U	O) (GC)	)		g	04/	Prepared	Prep Tyl           Prep           Analyzed           04/10/21 21	Batch	tal/N/ : 1597 Dil Fa
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Range Or A R	MB esult <50.0	MB Qualifier U	O) (GC)	)	mg/K	g g	04/0	<b>Prepared</b> 09/21 15:09 09/21 15:09	Prep Tyl           Prep           Analyzed           04/10/21 21           04/10/21 21	<b>Batch</b> 36	tal/N/ : 1597 Dil Fa
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Range Or A 	MB esult <50.0	MB Qualifier U U	O) (GC)	)	mg/K	g g	04/0	Prepared 09/21 15:09	Prep Tyl         Prep           Analyzed         04/10/21 21           0         04/10/21 21           0         04/10/21 21	<b>Batch</b> 36 36	tal/N/ : 159 Dil Fa
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36)	Range Or A 	MB esult <50.0 <50.0 <50.0	MB Qualifier U U U	O) (GC) 	)	mg/K mg/K mg/K	g g	04/0	Prepared 09/21 15:09 09/21 15:09 09/21 15:09	Prep Tyl         Prep           Analyzed         04/10/21 21           0         04/10/21 21           0         04/10/21 21	<b>Batch</b> 36 36	tal/N/ : 159 Dil Fa
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	Range Or A R 	MB esult <50.0 <50.0 <50.0 <50.0 MB	MB Qualifier U U U U U MB	O) (GC) 	)	mg/K mg/K mg/K	g g	04/0 04/0 04/0 04/0	Prepared 09/21 15:09 09/21 15:09 09/21 15:09 09/21 15:09	Prep Tyl         Prep           Analyzed         04/10/21 21           0         04/10/21 21           0         04/10/21 21           0         04/10/21 21	<b>Batch</b> 36 36 36 36	tal/N/ : 1597 Dil Fa
lethod: 8015B NM - Diesel F Lab Sample ID: MB 880-1597/1-A Matrix: Solid Analysis Batch: 1612	Range Or A R 	MB esult <50.0 <50.0 <50.0 <50.0 MB	MB Qualifier U U U	O) (GC) 	)	mg/K mg/K mg/K	g g	04/( 04/( 04/( 04/(	Prepared 09/21 15:09 09/21 15:09 09/21 15:09	Prep Typ           Prep           Analyzed           0           04/10/21 21           0           04/10/21 21           0           04/10/21 21           0           04/10/21 21           0           04/10/21 21           0           04/10/21 21	36 36 36 36	tal/NA : 1597

#### Lab Sample ID: LCS 880-1597/2-A Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA Analysis Batch: 1612 Prep Batch: 1597 LCS LCS %Rec. Spike Analyte Added Result Qualifier Unit D %Rec Limits 1000 Gasoline Range Organics 1107 mg/Kg 111 70 - 130

(GRO)-C6-C10

Eurofins Xenco, Carlsbad

Job ID: 890-507-1 SDG: TE012921038

Client: WSP USA Inc. Project/Site: Nash Deep East Job ID: 890-507-1 SDG: TE012921038

Page 43 of 90

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

Lab Sample ID: LCS 880-1597/ Matrix: Solid	2-A						Clien	it Sampl	e ID: Lab C Prep	ontrol S Type: To	
Analysis Batch: 1612									Pre	p Batch	: <b>1597</b>
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	933.6		mg/Kg		93	70 - 130		
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130	_							
o-Terphenyl	90		70 - 130								
Lab Sample ID: LCSD 880-159	7/3-4					Cli	ont Sai	nnle ID:	Lab Contro	ol Samol	
Matrix: Solid						011		inpic ib.		Type: To	
Analysis Batch: 1612										p Batch	
Analysis Batch. 1012			Spike		LCSD				%Rec.	p Datch	RPD
Analuta			Added			Unit	D	% Bee	Limits	חחם	
Analyte					Qualifier	Unit		%Rec			Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1249		mg/Kg		125	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1172	*1	mg/Kg		117	70 - 130	23	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	100		70 - 130	_							
o-Terphenyl	93		70 - 130								
Lab Sample ID: MB 880-1888/1 Matrix: Solid Analysis Batch: 1950	-A							Client	Sample ID: Prep	Type: S	
		МВ МВ									
Analyte	R	esult Qualifier		RL	Unit		D	Prepared	Analy	zed	Dil Fac
Chloride		5.00 U		5.00	mg/k	٢g			04/18/21	14:06	1
Lab Sample ID: LCS 880-1888/	2-A						Clier	it Sampl	e ID: Lab C	ontrol S	ample
Matrix: Solid										Type: S	
Analysis Batch: 1950											
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250	264.8		mg/Kg		106	90 _ 110		
Lab Sample ID: LCSD 880-188 Matrix: Solid	8/ <b>3-A</b>					Clie	ent Sai	mple ID:	Lab Contro	ol Sampl Type: S	
Analysis Batch: 1950									iieh	The o	SIGDIC
Analysis Batch. 1950			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	265.1		mg/Kg		106	90 - 110	0	20
Lab Sample ID: 890-507-1 MS Matrix: Solid									Client Sa Prep	mple ID: Type: S	
Analysis Batch: 1950											

Analysis Datch. 1950										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	13800		249	21590	4	mg/Kg		3119	90 _ 110	

Eurofins Xenco, Carlsbad

Client: WSP USA Inc. Project/Site: Nash Deep East

Job ID: 890-507-1 SDG: TE012921038

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

Analysis Batch: 1950       Sample Sample       Spike       MSD       %Rec.       RPE         Analyte       Result       Qualifier       Added       Result       Qualifier       Unit       D       %Rec.       RPD       Limit	ab Sample ID: 890-507-1 latrix: Solid	MSD								Client San Prep	nple ID: Type: So		
Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limi		Sample	Sample	Spike	MSD	MSD						RPD	
Chloride 13800 249 21380 4 mg/Kg 3036 90-110 1 24	nalyte		-				Unit	D	%Rec		RPD	Limit	
	hloride	13800		249	21380	4	mg/Kg		3036	90 - 110	1	20	
													Ī

Eurofins Xenco, Carlsbad

Released to Imaging: 9/9/2021 8:38:37 AM

## **QC Association Summary**

Client: WSP USA Inc. Project/Site: Nash Deep East

5

#### Job ID: 890-507-1 SDG: TE012921038

#### **GC VOA**

#### Analysis Batch: 1640

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	8021B	1645
890-507-2	SS02	Total/NA	Solid	8021B	1645
890-507-3	SS03	Total/NA	Solid	8021B	1645
MB 880-1645/5-A	Method Blank	Total/NA	Solid	8021B	1645
LCS 880-1645/1-A	Lab Control Sample	Total/NA	Solid	8021B	1645
LCSD 880-1645/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1645
890-507-1 MS	SSO1	Total/NA	Solid	8021B	1645
890-507-1 MSD	SSO1	Total/NA	Solid	8021B	1645

#### Prep Batch: 1645

890-507-1 MS	\$\$01	Iotal/NA	Solid	8021B	1645	
890-507-1 MSD	SSO1	Total/NA	Solid	8021B	1645	8
Prep Batch: 1645						9
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
890-507-1	SSO1	Total/NA	Solid	5035		
890-507-2	SS02	Total/NA	Solid	5035		
890-507-3	SS03	Total/NA	Solid	5035		
MB 880-1645/5-A	Method Blank	Total/NA	Solid	5035		
LCS 880-1645/1-A	Lab Control Sample	Total/NA	Solid	5035		
LCSD 880-1645/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		
890-507-1 MS	SSO1	Total/NA	Solid	5035		40
890-507-1 MSD	SSO1	Total/NA	Solid	5035		13

#### GC Semi VOA

#### Prep Batch: 1597

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	8015NM Prep	
890-507-2	SS02	Total/NA	Solid	8015NM Prep	
890-507-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-1597/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1597/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1597/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

#### Analysis Batch: 1612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	8015B NM	1597
890-507-2	SS02	Total/NA	Solid	8015B NM	1597
890-507-3	SS03	Total/NA	Solid	8015B NM	1597
MB 880-1597/1-A	Method Blank	Total/NA	Solid	8015B NM	1597
LCS 880-1597/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1597
LCSD 880-1597/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1597

#### HPLC/IC

#### Leach Batch: 1888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Soluble	Solid	DI Leach	
890-507-2	SS02	Soluble	Solid	DI Leach	
890-507-3	SS03	Soluble	Solid	DI Leach	
MB 880-1888/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1888/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1888/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-507-1 MS	SSO1	Soluble	Solid	DI Leach	
890-507-1 MSD	SSO1	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

## **QC** Association Summary

Client: WSP USA Inc. Project/Site: Nash Deep East Job ID: 890-507-1 SDG: TE012921038

#### HPLC/IC

#### Analysis Batch: 1950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Soluble	Solid	300.0	1888
890-507-2	SS02	Soluble	Solid	300.0	1888
890-507-3	SS03	Soluble	Solid	300.0	1888
MB 880-1888/1-A	Method Blank	Soluble	Solid	300.0	1888
LCS 880-1888/2-A	Lab Control Sample	Soluble	Solid	300.0	1888
LCSD 880-1888/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1888
890-507-1 MS	SSO1	Soluble	Solid	300.0	1888
890-507-1 MSD	SSO1	Soluble	Solid	300.0	1888

## Page 46 of 90

Job ID: 890-507-1

Matrix: Solid

Matrix: Solid

Matrix: Solid

9

SDG: TE012921038

Lab Sample ID: 890-507-1

Lab Sample ID: 890-507-2

Lab Sample ID: 890-507-3

#### Lab Chronicle

Client: WSP USA Inc. Project/Site: Nash Deep East

## Client Sample ID: SSO1

Date Collected: 04/08/21 12:36 Date Received: 04/08/21 16:00

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1645	04/12/21 09:50	KL	XM
Total/NA	Analysis	8021B		1	1640	04/12/21 15:34	KL	XM
Total/NA	Prep	8015NM Prep			1597	04/09/21 15:09	DM	XM
Total/NA	Analysis	8015B NM		1	1612	04/11/21 06:04	AJ	XM
Soluble	Leach	DI Leach			1888	04/16/21 11:44	SC	XM
Soluble	Analysis	300.0		20	1950	04/18/21 15:33	WP	XM

#### Client Sample ID: SS02 Date Collected: 04/08/21 12:38

#### Date Received: 04/08/21 16:00

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1645	04/12/21 09:50	KL	XM
Total/NA	Analysis	8021B		1	1640	04/12/21 15:54	KL	XM
Total/NA	Prep	8015NM Prep			1597	04/09/21 15:09	DM	XM
Total/NA	Analysis	8015B NM		1	1612	04/11/21 06:32	AJ	XM
Soluble	Leach	DI Leach			1888	04/16/21 11:44	SC	XM
Soluble	Analysis	300.0		20	1950	04/18/21 15:48	WP	XM

## Client Sample ID: SS03

#### Date Collected: 04/08/21 12:40 Date Received: 04/08/21 16:00

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA 5035 04/12/21 09:50 XM Prep 1645 KL 8021B Total/NA Analysis 1640 04/12/21 16:15 KL XM 1 Total/NA 8015NM Prep 04/09/21 15:09 XМ Prep 1597 DM Total/NA 04/11/21 06:53 8015B NM XM Analysis 1 1612 AJ 04/16/21 11:44 ΧМ Soluble Leach DI Leach 1888 SC XМ Soluble Analysis 300.0 10 1950 04/18/21 15:53 WP

#### Laboratory References:

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

Page 48 of 90

10

## Accreditation/Certification Summary

Client: WSP USA Inc. Project/Site: Nash Deep East Job ID: 890-507-1 SDG: TE012921038

#### Laboratory: Eurofins Xenco, Midland

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

hority	Pi	ogram	Identification Number	Expiration Date
as	N	ELAP	T104704400-20-21	06-30-21
the agency does not of		at the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for v
0,		Matrix	Analvte	
Analysis Method 8015B NM	Prep Method 8015NM Prep	Matrix Solid	Analyte Total TPH	

Eurofins Xenco, Carlsbad

SDG: TE012921038

Nethod	Method Description	Protocol	Laboratory
3021B	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
3015NM Prep	Microextraction	SW846	XM
OI 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

Job ID: 890-507-1

Page 49 of 90

Eurofins Xenco, Carlsbad

## Sample Summary

Client: WSP USA Inc. Project/Site: Nash Deep East Job ID: 890-507-1 SDG: TE012921038

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
390-507-1	SSO1	Solid	04/08/21 12:36	04/08/21 16:00	- 0.5	
390-507-2	SS02	Solid	04/08/21 12:38	04/08/21 16:00	- 0.5	
390-507-3	SS03	Solid	04/08/21 12:40	04/08/21 16:00	- 0.5	Ę
						8
						9
						1
						1

Revised Date 051418 Rev. 2018			σ							1	5
			(000 2 4		4.8.21		all	100		by to	3 w
Received by: (Signature) Date/Time	Receive	Relinquished by: (Signature)	7	Date/Time		ıre)	Received by: (Signature)	Receiv	(Signature)	Relinquished by: (Sig	
ons ntrol	tors. It assigns standard terms and conditions ses are due to circumstances beyond the control be enforced unless previously negotiated.	Meets a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the contro nd a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	nco, its affiliate Incurred by the ut not analyzed.	ompany to Xe or expenses d to Xenco, br	<del>m client cc</del> any losses e submitte	nchase order ifc sponsibility for a for each sample	not assume any r t and a charge of \$	o <del>f samples o</del> ples and shal o each projec	Notice: Signature of this document and relinquisbment of samples esnetivities a valid purchase order from client company to Xenco, its affiliates and subcontract of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such loss of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will	gnature of this document and relined and relined and relined and the liable only for the A minimum charge of \$75.00 will	Notice: Signat of service. Xe of Xenco. A m
Se Ag SiO2 Na Sr TI Sn U V Zn 1631/245.1/7470/7471:Hg	Mn Mo Ni K Se Ag Ti U	Ca Cr Co Cu Fe Pb Mg Mn Mo I Co Cu Pb Mn Mo Ni Se Ag TI U	Be B Cd Be Cd Cr	Sb As Ba Sb As Ba	11 AI : CRA S	RCRA 13PPM Texas 11 A TCLP / SPLP 6010: 8RCRA	8RCRA 13F TCLP / SPI	nalyzed	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.7 / 6010 9 Method(s) an	Total : Circle
e			×	×	<u> </u>	0.5	21 12:40	4/8/2021	S	SS03	
			×	×		0.5	21 12:38	4/8/2021	s	SS02	
Composite			×	××		0.5'	21 12:36	4/8/2021	S	SSO1	
Sample Comments			Chloric	TPH (E BTEX (	Numb	Depth	Time d Sampled	Date Sampled	tion Matrix	Sample Identification	Sar
lab, if received by 4:30pm			le (El		er of		Total Containers:		No	stody Seals:	Sample Custody Seals:
TAT starts the day receiied by the	TSIOUY	890-507 Chain of Creaver	PA 3		Co	-0.2	Correction Factor:		6/	ody Seals:	Cooler Custody Seals:
			00.0)	)21)	ntai	البہ	NM. 00	2	(Yes) No	tact:	Received Intact:
					ners	⊡(	Thermometer		4.8/4 10	e (°C):	Temperature (°C):
						Yes No	Wet Ice:	(Yes No	Temp Blank: (Yes	SAMPLE RECEIPT	SAMPL
						Date:	Due Date:	ee	Elliot Lee	lame:	Sampler's Name:
Incident # NAPP2108246073							Rush:			er:	P.O. Number:
Cost Center 1056641001						ne F	Routine	1038	TE012921038	nber:	Project Number
Work Order Notes		ANALYSIS REQUEST				Turn Around	Tu	p East	Nash Deep East	ne:	Project Name:
ADaPT Other:	Deliverables: EDD		Tacoma.Morrissey@wsp.com	Facoma.Mo	NT .	Elliot.Lee@wsp.com	Email:		(432) 236-3849		Phone:
	Reporting:Level II	Rep	A, 88220	Carlsbad, NM, 88220		City, State ZIP:			Midland, Tx 79705		City, State ZIP:
ļ	State of Project:		n Street	3104 e Green Street		Address:			3300 North A Street		Address:
RP prownfields RC perfund		Pro		XTO Energy		Company Name:			WSP Permian office		Company Name:
Work Order Comments				Kyle Littrell	nt) K	Bill to: (rf different)			Dan Moir		Project Manager:
www.xenco.com Page l of l		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)	5)585-3443 Lu tlanta,GA (770	Paso,TX (91) 355-0900) A	,440) EL I	d,TX (432-704-5 -7550) Phoenix	Midlan bbs,NM (575-392	н	BORATORIES	LABO	
Work Order No:	Wot	Chain of Custody	Chain of Custody			TX (281) 240-4	Houston				)
			)): : :	•	)						

## Received by OCD: 6/7/2021 9:53:40 AM



כד וֹמ いい Ŋ 5

13

## Received by OCD: 6/7/2021 9:53:40 AM

#### State, Zip TX, 79701 Carlsbad NM 88220 Phone 575-988-3199 Fax: 575-988-3199 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/bests/mainx 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. SS02 (890-507-2) SSO1 (890-507-1) Deliverable Requested I II III IV Other (specify) Possible Hazard Identification SS03 (890-507-3) Sample Identification - Client ID (Lab ID) Nash Depp East ma 432-704-5440(Tel) Midland 1211 W Florida Ave Shipping/Receiving Client Information 1089 N Canal St. Empty Kit Relinquished by elinquished by elinquished by elinquished by nconfirmed urofins Xenco Custody Seals Intact. oject Name: ent Contact: npany Yes ∆ No (Sub Contract Lab) Custody Seal No ; 0 • SSOW#: Project #: 89000004 ¥0 PO # 4/14/2021 Phone Sampler Date/Time Date/Time: Date/Time: Primary Deliverable Rank 2 FAT Requested (days) Due Date Requested Sample Date 4/8/21 4/8/21 4/8/21 Chain of Custody Record Mountain 12 40 Mountain 12 38 Date Mountain Sample Time 12 36 (C=comp, G=grab) Sample Type Preservation Code: Company Company Company 3T=Tissue, A=/ O=waste/oil, (W≃water S=solid Matrix Solid Solid Solid E-Mail Lab PM jessica kramer@eurofinset.com Kramer Jessica Field Filtered Sample (Yes or No) Accreditations Required (See note). NELAP - Louisiana NELAP - Texas Time Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Received by Received b Received by 8015MOD NM/8015NM S Prep Full TPH × × × Cooler Temperature(s) °C and Other Remarks Return To Client × × × 300\_ORGFM\_28D/DI\_LEACH Chloride × 8021B/5036FP\_Calc BTEX × × Analysis Requested Disposal By Lab Carrier Tracking No(s): New Mexico State of Origin: Method of Shipment Jate/ I Ime Date/Time P 12-P Archive For Total Number of containers \*\* 4 1990 COC No: 890-156 1 ᄃᅎᄕ TOJUCOV Other: Preservation Codes Page 1 of 1 390-507-1 D Nitric Acid Nitric Acid Natric Acid NeOH A Acorbic Acid A Accorbic Acid I ce EDTA EDTA Ø NaOH Б J.0010 Special Instructions/Note: ⊣ഗ⊼о ≈ ≤ < ⊂ DOZZ **Envronment Testing** M Hexane A None AsNaO2 Na2O4S Na2SO3 Na2S2O3 Company Company J Acetone / MCAA / pH 4-5 other (specify) America Company H2SO4 TSP Dodecahydrate Months

Page 52 of 90

Eurofins Xenco, Carlsbad

13

Ver 11/01/2020

seurofins

14

Job Number: 890-507-1 SDG Number: TE012921038

List Source: Eurofins Carlsbad

#### Login Sample Receipt Checklist

Client: WSP USA Inc.

#### Login Number: 507 List Number: 1 Creator: Ordonez, Gabby

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

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

Job Number: 890-507-1 SDG Number: TE012921038

List Source: Eurofins Midland

List Creation: 04/09/21 02:46 PM

### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 507 List Number: 2 Creator: Copeland, Tatiana

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

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



Environment Testing America

## ANALYTICAL REPORT

Job Number: 890-596-1 SDG Number: TE012921038 Job Description: Nash Depp East

For: WSP USA Inc. 2777 N. Stemmons Freeway Suite 1600 Dallas, TX 75207 Attention: Dan Moir

AMER

Approved for release Jessica Kramer Project Manager 5/5/2021 9:12 AM

Jessica Kramer, Project Manager 1211 W. Florida Ave, Midland, TX, 79701 jessica.kramer@eurofinset.com 05/05/2021

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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.

Eurofins Xenco, Carlsbad 1089 N Canal St., Carlsbad, NM 88220 Tel (575) 988-3199 Fax (575) 988-3199 <u>www.EurofinsUS.com</u>



#### Received by OCD: 6/7/2021 9:53:40 AM

### **Client Sample Result Summary**

Client: WSP USA Inc. Project/Site: Nash Depp East

Chloride

Page	56	of 90	

Job ID: 890-596-1 SDG: TE012921038

Project/Site: Nash Depp East	t								SDG: TEC	12921038
Lab Sample ID:	890-596-1		890-596-2		890-596-3		890-596-4		890-596-5	
Client Sample ID:	FS01		PH01		PH01A		PH02		PH02A	
Depth:	2.5		1		2.5		1		2.5	
Matrix:	Solid		Solid		Solid		Solid		Solid	
Date Collected:	04/28/2021 1	3:23	04/28/2021 1	4:07	04/28/2021 1	4:13	04/28/2021 1	4:20	04/28/2021 1	4:23
Method: 8021B - Volatile Org	ganic Comp	ounds (G0	C)							
Prepared:	04/29/2021 1	6:15	04/30/2021 1	3:50	04/30/2021 1	3:50	04/30/2021 1	3:50	04/30/2021 1	3:50
	04/30/2021 0		05/01/2021 0	3:29	05/01/2021 0	3:49	05/01/2021 04	4:10	05/01/2021 04	4:30
Analyte Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00198 U	0.00198
Toluene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00198 U	0.00198
Ethylbenzene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00198 U	0.00198
m-Xylene & p-Xylene	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00398 U	0.00398	<0.00396 U	0.00396
o-Xylene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00198 U	0.00198
Xylenes, Total	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00398 U	0.00398	<0.00396 U	0.00396
Total BTEX	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00398 U	0.00398	<0.00396 U	0.00396
Method: 8015B NM - Diesel I	Range Orga	anics (DRC	) (GC)							
Prepared:	04/30/2021 1	4:09	04/30/2021 14	4:09	04/30/2021 1	0:36	04/30/2021 08:50		04/30/2021 08:50	
Analyzed:	05/02/2021 2	0:05	05/02/2021 2	0:26	05/02/2021 2	0:26	05/03/2021 0	1:43	05/03/2021 0	2:03
-		RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0
Diesel Range Organics (Over C10-C28)	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0
Oll Range Organics (Over C28-C36)	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0
Total TPH	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0	<50.0 U	50.0
Method: 300.0 - Anions, Ion	Chromatog	raphy - So	luble							
Prepared:										
Analyzed:	05/04/2021 1	7:57	05/04/2021 1	8:02	05/04/2021 1	8:07	05/04/2021 1	8:23	05/04/2021 1	8:28
Analyte Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
011 11					1 00 11	1.00		5.0.4	5 05 11	

5.05

<4.98 U

4.98

17.9

5.05

15.2

108

.

<5.05 U

5.04

5.05

### **Client Sample Result Summary**

Job ID: 890-596-1 SDG: TE012921038

Client: WSP USA Inc. Project/Site: Nash Depp East

Lab Sample ID:	890-596-6	890-596-7	890-596-8	890-596-9
Client Sample ID:	PH03	PH03A	PH04	PH04A
Depth:	1	2.5	1	2.5
Matrix:	Solid	Solid	Solid	Solid
Date Collected:	04/28/2021 14:30	04/28/2021 14:34	04/28/2021 14:39	04/28/2021 14:42

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

	Prepared: Analyzed:			04/30/2021 1 04/30/2021 1		04/30/2021 1 04/30/2021 2		04/30/2021 1 04/30/2021 2	
Analyte	Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Toluene		<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Ethylbenzene		<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
m-Xylene & p-Xylene		<0.00402 U	0.00402	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398
o-Xylene		<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Xylenes, Total		<0.00402 U	0.00402	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398
Total BTEX		<0.00402 U	0.00402	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398

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

Prepare	<b>d:</b> 04/30/2021	08:50	04/30/2021	08:50	04/30/2021	08:50	04/30/2021	08:50	
Analyze	d: 05/03/2021	02:46	05/03/2021	03:07	05/03/2021	03:28	05/03/2021	03:48	
Analyte Unit/R	_: mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	
Gasoline Range Organics (GRO)-C6-C10	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	
Diesel Range Organics (Over C10-C28)	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	
Oll Range Organics (Over C28-C36)	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	
Total TPH	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	

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

	Prepared:								
	Analyzed:	05/04/2021	18:44	05/04/2021	18:49	05/04/2021	18:54	05/04/2021	18:59
Analyte	Unit/RL:	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		137	4.99	53.3	4.97	199	4.95	37.3	4.95

.

Received by OCD: 6/7/2021 9:53:40 AM

# 🔅 eurofins |

# Environment Testing America

# **ANALYTICAL REPORT**

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

## Laboratory Job ID: 890-596-1

Laboratory Sample Delivery Group: TE012921038 Client Project/Site: Nash Depp East

## For:

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

Attn: Dan Moir

RAMER

Authorized for release by: 5/5/2021 9:12:24 AM

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

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

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

LINKS **Review your project** 

results through Total Access Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env Released to Imaging: 9/9/2021 8:38:37 AM

Laboratory Job ID: 890-596-1 SDG: TE012921038

# **Table of Contents**

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	11
QC Sample Results	13
QC Association Summary	20
Lab Chronicle	23
Certification Summary	26
Method Summary	27
Sample Summary	28
Chain of Custody	29
Receipt Checklists	31

2

Page 60 of 90

	Definitions/Glossary		
Client: WSP US Project/Site: Na		Job ID: 890-596-1 SDG: TE012921038	2
Qualifiers			3
GC VOA Qualifier	Qualifier Description		
S1+	Surrogate recovery exceeds control limits, high biased.		
U	Indicates the analyte was analyzed for but not detected.		5
GC Semi VOA Qualifier	Qualifier Description		6
U	Indicates the analyte was analyzed for but not detected.		
HPLC/IC Qualifier	Qualifier Description		
	Indicates the analyte was analyzed for but not detected.		8
Glossary			Q
Abbreviation	These commonly used abbreviations may or may not be present in this report.		
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis		
%R	Percent Recovery		
CFL	Contains Free Liquid		
CFU	Colony Forming Unit		
CNF	Contains No Free Liquid		
DER	Duplicate Error Ratio (normalized absolute difference)		
Dil Fac	Dilution Factor		13
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 LOD	Estimated Detection Limit (Dioxin)		
LOQ	Limit of Detection (DoD/DOE) 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		

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

   TEF
   Toxicity Equivalent Factor (Dioxin)
- TEF
   Toxicity Equivalent Factor (Dioxin)

   TEQ
   Toxicity Equivalent Quotient (Dioxin)
- TNTC Too Numerous To Count

#### Job ID: 890-596-1

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

Job Narrative 890-596-1

#### Receipt

The samples were received on 4/29/2021 9:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

#### **Receipt Exceptions**

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-596-1), PH01 (890-596-2), PH01A (890-596-3), PH02 (890-596-4), PH02A (890-596-5), PH03 (890-596-6), PH03A (890-596-7), PH04 (890-596-8) and PH04A (890-596-9).

#### GC VOA

Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: FS01 (890-596-1). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-596-2), PH01A (890-596-3), PH02 (890-596-4) and PH02A (890-596-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### GC Semi VOA

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

#### HPLC/IC

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

Job ID: 890-596-1 SDG: TE012921038

Job ID: 890-596-1 SDG: TE012921038

## Lab Sample ID: 890-596-1

Matrix: Solid

5

Client Sample ID: FS01 Date Collected: 04/28/21 13:23 Date Received: 04/29/21 09:08 Sample Depth: - 2.5

Project/Site: Nash Depp East

Client: WSP USA Inc.

04. 04. 04. 04. 04. 04. 04. 04.	04/29/21 16:15 04/29/21 16:15	04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01           04/30/21 09:01	1 1 1 1 1 1 1 <i>Dil Fac</i> 1 <i>Dil Fac</i>
04. 04. 04. 04. 04. 04. 04.	04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 Prepared	04/30/21 09:01 04/30/21 09:01 04/30/21 09:01 04/30/21 09:01 04/30/21 09:01 <i>Analyzed</i> 04/30/21 09:01 04/30/21 09:01	1 1 1 1 1 1 <i>Dil Fac</i> 1 Dil Fac
04. 04. 04. 04. 04. 04. D	04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 Prepared	04/30/21 09:01 04/30/21 09:01 04/30/21 09:01 04/30/21 09:01 <u>Analyzed</u> 04/30/21 09:01 04/30/21 09:01	1 1 1 1 1 1 1 Dil Fac
04. 04. 04. 04. 04. 04.	04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 <b>Prepared</b> 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15	04/30/21 09:01 04/30/21 09:01 04/30/21 09:01 <u>Analyzed</u> 04/30/21 09:01 04/30/21 09:01 Analyzed	1 1 1 1 1 1 1 Dil Fac
04, 04, 04, 04, 04,	04/29/21 16:15 04/29/21 16:15 <b>Prepared</b> 04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 Prepared	04/30/21 09:01 04/30/21 09:01 <b>Analyzed</b> 04/30/21 09:01 04/30/21 09:01 Analyzed	1 1 Dil Fac
04, 04, 04,	04/29/21 16:15 Prepared 04/29/21 16:15 04/29/21 16:15 Prepared	04/30/21 09:01 <u>Analyzed</u> 04/30/21 09:01 04/30/21 09:01 Analyzed	1 1 Dil Fac
04. 04. D	Prepared 04/29/21 16:15 04/29/21 16:15 Prepared	Analyzed 04/30/21 09:01 04/30/21 09:01 Analyzed	1 1 Dil Fac
04. 04. D	04/29/21 16:15 04/29/21 16:15 04/29/21 16:15 Prepared	04/30/21 09:01 04/30/21 09:01 Analyzed	1 1 Dil Fac
04. D	04/29/21 16:15 Prepared	04/30/21 09:01 Analyzed	Dil Fac
<u>D</u>	Prepared	Analyzed	Dil Fac
	•		
		05/02/21 20:05	1
04	04/30/21 14:09		
		03/02/21 20:03	1
04	04/30/21 14:09	05/02/21 20:05	1
04	04/30/21 14:09	05/02/21 20:05	1
04	04/30/21 14:09	05/02/21 20:05	1
	Prepared	Analyzed	Dil Fac
04	04/30/21 14:09	05/02/21 20:05	1
04,	04/30/21 14:09	05/02/21 20:05	1
D	Prepared	Analyzed	Dil Fac
_		04/30/21 14:09 04/30/21 14:09	04/30/21         14:09         05/02/21         20:05           04/30/21         14:09         05/02/21         20:05

#### Client Sample ID: PH01 Date Collected: 04/28/21 14:07

Date Received: 04/29/21 09:08

Sample Depth: -1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			04/30/21 13:50	05/01/21 03:29	1
1,4-Difluorobenzene (Surr)	99		70 - 130			04/30/21 13:50	05/01/21 03:29	1

Lab Sample ID: 890-596-2

Matrix: Solid

Page 63 of 90

Job ID: 890-596-1 SDG: TE012921038

Lab Sample ID: 890-596-2

Lab Sample ID: 890-596-3

04/30/21 13:50 05/01/21 03:49

Matrix: Solid

### **Client Sample ID: PH01**

Project/Site: Nash Depp East

Date Collected: 04/28/21 14:07 Date Received: 04/29/21 09:08

Sample Depth: -1

Client: WSP USA Inc.

nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Basoline Range Organics	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1
GRO)-C6-C10								
iesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1
:10-C28)								
II Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1
otal TPH	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1
urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
-Chlorooctane	104		70 - 130			04/30/21 14:09	05/02/21 20:26	1
-Terphenyl	115		70 - 130			04/30/21 14:09	05/02/21 20:26	1

	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	15.2		5.05	mg/Kg			05/04/21 18:02	1

#### **Client Sample ID: PH01A**

Date Collected: 04/28/21 14:13 Date Received: 04/29/21 09:08 Sample Depth: - 2.5

1,4-Difluorobenzene (Surr)

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			04/30/21 13:50	05/01/21 03:49	1

70 - 130

98

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			04/30/21 10:36	05/02/21 20:26	1
o-Terphenyl	104		70 - 130			04/30/21 10:36	05/02/21 20:26	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98		4.98	mg/Kg			05/04/21 18:07	1

Matrix: Solid

5

13

Job ID: 890-596-1 SDG: TE012921038

## Lab Sample ID: 890-596-4

05/03/21 01:43

05/03/21 01:43

Lab Sample ID: 890-596-5

Matrix: Solid

04/30/21 08:50

04/30/21 08:50

Matrix: Solid

5

**Client Sample ID: PH02** d: 04/28/21 14:20 D 0-11-

Project/Site: Nash Depp East

Date	Collected:	04/28/21	14:20
Date	Received:	04/29/21	09:08

Sample Depth: -1

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/30/21 13:50	05/01/21 04:10	1
1,4-Difluorobenzene (Surr)	98		70 - 130			04/30/21 13:50	05/01/21 04:10	1
- Method: 8015B NM - Diesel Ra	inge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 01:43	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 01:43	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114	70 - 130	04/30/21 08:50	05/03/21 01:43	1
o-Terphenyl	109	70 - 130	04/30/21 08:50	05/03/21 01:43	1

50.0

50.0

mg/Kg

mg/Kg

ſ	Method: 300.0 - Anions, Ion Chron	natography -	Soluble						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	17.9		5.04	mg/Kg			05/04/21 18:23	1

<50.0 U

<50.0 U

#### **Client Sample ID: PH02A** Date Collected: 04/28/21 14:23 Date Received: 04/29/21 09:08

Oll Range Organics (Over C28-C36)

Sample Depth: - 2.5

C10-C28)

Total TPH

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/30/21 13:50	05/01/21 04:30	1
1,4-Difluorobenzene (Surr)	98		70 - 130			04/30/21 13:50	05/01/21 04:30	1

## **Client Sample Results**

Client: WSP USA Inc. Project/Site: Nash Depp East

#### **Client Sample ID: PH02A**

Date Collected: 04/28/21 14:23

Date Received: 04/29/21 09:08 Sample Depth: - 2.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	95		70 - 130			04/30/21 08:50	05/03/21 02:03	
o-Terphenyl	95		70 - 130			04/30/21 08:50	05/03/21 02:03	

	atography	oorabie							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.05	U	5.05	mg/Kg			05/04/21 18:28	1	

#### **Client Sample ID: PH03**

Date Collected: 04/28/21 14:30 Date Received: 04/29/21 09:08 Sample Depth: -1

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			04/30/21 10:02	04/30/21 19:26	1

1,4-Difluorobenzene (Surr)	106		70 - 130			04/30/21 10:02	04/30/21 19:26	1
– Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			04/30/21 08:50	05/03/21 02:46	1
o-Terphenyl	108		70 - 130			04/30/21 08:50	05/03/21 02:46	1
_ Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		4.99	mg/Kg			05/04/21 18:44	1

Eurofins Xenco, Carlsbad

Page 65 of 90

Job ID: 890-596-1 SDG: TE012921038

## Lab Sample ID: 890-596-5

Lab Sample ID: 890-596-6

Matrix: Solid

Matrix: Solid

Job ID: 890-596-1 SDG: TE012921038

## Lab Sample ID: 890-596-7

Matrix: Solid

5

Client Sample ID: PH03A Date Collected: 04/28/21 14:34 Date Received: 04/29/21 09:08 Sample Depth: - 2.5

Project/Site: Nash Depp East

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			04/30/21 10:02	04/30/21 19:46	1
1,4-Difluorobenzene (Surr)	109		70 - 130			04/30/21 10:02	04/30/21 19:46	1
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130			04/30/21 08:50	05/03/21 03:07	1

Chloride	53.3		4.97	mg/Kg			05/04/21 18:49	1	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Method: 300.0 - Anions, Ion Chrom	natography - S	Soluble							
o-Terphenyl	109		70 - 130			04/30/21 08:50	05/03/21 03:07	1	
1-Chiorooctane	110		70 - 130			04/30/21 08:50	05/03/21 03:07	1	

#### Client Sample ID: PH04 Date Collected: 04/28/21 14:39 Date Received: 04/29/21 09:08

#### Date Received: 04/29/

Sample Depth: - 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			04/30/21 10:02	04/30/21 20:06	1
1,4-Difluorobenzene (Surr)	108		70 - 130			04/30/21 10:02	04/30/21 20:06	1

Lab Sample ID: 890-596-8

Matrix: Solid

#### Page 67 of 90

Job ID: 890-596-1 SDG: TE012921038

Lab Sample ID: 890-596-8

Lab Sample ID: 890-596-9

04/30/21 10:02 04/30/21 20:27

Matrix: Solid

1

## Project/Site: Nash Depp East **Client Sample ID: PH04**

Date Collected: 04/28/21 14:39 Date Received: 04/29/21 09:08

Sample Depth: -1

Client: WSP USA Inc.

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			04/30/21 08:50	05/03/21 03:28	1
o-Terphenyl	117		70 - 130			04/30/21 08:50	05/03/21 03:28	1

**Client Sample Results** 

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199	4.95	mg/Kg			05/04/21 18:54	1

#### **Client Sample ID: PH04A**

Date Collected: 04/28/21 14:42 Date Received: 04/29/21 09:08 Sample Depth: - 2.5

1,4-Difluorobenzene (Surr)

Method: 8021B - Volatile Orga	nic Compounds (	(GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			04/30/21 10:02	04/30/21 20:27	1

70 - 130

109

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			04/30/21 08:50	05/03/21 03:48	1
o-Terphenyl	100		70 - 130			04/30/21 08:50	05/03/21 03:48	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.3		4.95	mg/Kg			05/04/21 18:59	1

Eurofins Xenco, Carlsbad

Matrix: Solid

Client: WSP USA Inc. Project/Site: Nash Depp East

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

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-596-1	FS01	89	85		
890-596-2	PH01	132 S1+	99		
890-596-3	PH01A	82	98		
890-596-4	PH02	113	98		
890-596-5	PH02A	115	98		
890-596-6	PH03	106	106		
890-596-7	PH03A	110	109		
890-596-8	PH04	108	108		
890-596-9	PH04A	109	109		
LCS 880-2496/1-A	Lab Control Sample	109	112		
LCS 880-2531/1-A	Lab Control Sample	100	105		
LCS 880-2540/1-A	Lab Control Sample	98	106		
LCSD 880-2496/2-A	Lab Control Sample Dup	117	110		
LCSD 880-2531/2-A	Lab Control Sample Dup	101	103		
LCSD 880-2540/2-A	Lab Control Sample Dup	101	104		
MB 880-2450/5-A	Method Blank	77	85		
MB 880-2496/5-A	Method Blank	72	90		
MB 880-2531/5-A	Method Blank	102	103		
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

				Percent Surrogate Rec
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-596-1	FS01	104	120	
890-596-2	PH01	104	115	
890-596-3	PH01A	110	104	
890-596-4	PH02	114	109	
890-596-5	PH02A	95	95	
890-596-6	PH03	112	108	
890-596-7	PH03A	110	109	
890-596-8	PH04	119	117	
890-596-9	PH04A	98	100	
LCS 880-2518/2-A	Lab Control Sample	113	101	
LCS 880-2539/2-A	Lab Control Sample	96	92	
LCS 880-2551/2-A	Lab Control Sample	104	104	
LCSD 880-2518/3-A	Lab Control Sample Dup	112	103	
LCSD 880-2539/3-A	Lab Control Sample Dup	96	91	
LCSD 880-2551/3-A	Lab Control Sample Dup	98	101	
MB 880-2518/1-A	Method Blank	101	103	
MB 880-2539/1-A	Method Blank	101	108	
	Method Blank	99	114	

1CO = 1-Chlorooctane

Prep Type: Total/NA

Prep Type: Total/NA

## Surrogate Summary

Client: WSP USA Inc. Project/Site: Nash Depp East OTPH = o-Terphenyl Job ID: 890-596-1 SDG: TE012921038

5	
6	
8	
9	
13	

Eurofins Xenco, Carlsbad

Client: WSP USA Inc.

## **QC Sample Results**

Job ID: 890-596-1 SDG: TE012921038

## Project/Site: Nash Depp East

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2450/5-A Matrix: Solid	•							Sherit Se	ample ID: Metho Prep Type: `	
Analysis Batch: 2447	МР	МВ							Prep Bat	UII. 2430
Analyte		Qualifier	RL		Unit		D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	-	0.00200		01112	'n	_	04/28/21 13:23	04/29/21 11:43	1
Toluene	<0.00200		0.00200		mg/k	-		04/28/21 13:23	04/29/21 11:43	1
Ethylbenzene	<0.00200		0.00200		mg/k	-		04/28/21 13:23	04/29/21 11:43	1
m-Xylene & p-Xylene	< 0.00400		0.00400		mg/k			04/28/21 13:23	04/29/21 11:43	· · · · · · · 1
o-Xylene	<0.00200		0.00200		mg/k	-		04/28/21 13:23	04/29/21 11:43	1
Xylenes, Total	< 0.00400		0.00400		mg/k	-		04/28/21 13:23	04/29/21 11:43	1
Total BTEX	< 0.00400		0.00400		mg/k			04/28/21 13:23	04/29/21 11:43	
	0.00100	•	0.00100			9		0	0.120.21 11.10	
	MB	MB								
Surrogate	%Recovery	Qualifier	Limits					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		70 - 130					04/28/21 13:23	04/29/21 11:43	1
1,4-Difluorobenzene (Surr)	85		70 - 130					04/28/21 13:23	04/29/21 11:43	1
Lab Sample ID: MB 880-2496/5-4	4							Client Sa	ample ID: Metho	d Blank
Matrix: Solid									Prep Type:	Total/NA
Analysis Batch: 2447									Prep Bat	ch: 2496
	MB	MB								
Analyte	Result	Qualifier	RL		Unit		D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/k	íg	_	04/29/21 12:40	04/30/21 00:56	1
Toluene	<0.00200	U	0.00200		mg/k	(g		04/29/21 12:40	04/30/21 00:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/k	g		04/29/21 12:40	04/30/21 00:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/k	g		04/29/21 12:40	04/30/21 00:56	1
o-Xylene	<0.00200	U	0.00200		mg/k	(g		04/29/21 12:40	04/30/21 00:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/k	g		04/29/21 12:40	04/30/21 00:56	1
Total BTEX	<0.00400	U	0.00400		mg/k	(g		04/29/21 12:40	04/30/21 00:56	1
	МВ	МВ								
Surrogate	%Recovery	Qualifier	Limits					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130					04/29/21 12:40	04/30/21 00:56	1
1,4-Difluorobenzene (Surr)	90		70 - 130					04/29/21 12:40	04/30/21 00:56	1
Lab Sample ID: LCS 880-2496/1-	A						c	lient Sample	ID: Lab Control	Sample
Matrix: Solid									Prep Type:	Total/NA
Analysis Batch: 2447									Prep Bat	ch: 2496
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit		D %Rec	Limits	
Benzene			0.100	0.1076		mg/Kg		108	70 - 130	
Toluene			0.100	0.1154		mg/Kg		115	70 - 130	
Ethylbenzene			0.100	0.1127		mg/Kg		113	70 - 130	
m-Xylene & p-Xylene			0.200	0.2025		mg/Kg		101	70 - 130	
o-Xylene			0.100	0.1140		mg/Kg		114	70 - 130	
	LCS LCS	;								
Surrogate	%Recovery Qua	lifier	Limits							
4-Bromofluorobenzene (Surr)	109		70 - 130							

Client: WSP USA Inc. Project/Site: Nash Depp East Job ID: 890-596-1 SDG: TE012921038

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

Lab Sample ID: LCSD 880-2 Matrix: Solid							511				ab Control Prep Ty		
Analysis Batch: 2447												Batch	
Analysis Datch. 2447				Spike	LCSD	LCSD					%Rec.	Daten	RPI
Analyte				Added	Result		r Unit	I	D	%Rec	Limits	RPD	Lim
Benzene				0.100	0.1150		mg/Kg			115	70 - 130	7	3
Toluene				0.100	0.1257		mg/Kg			126	70 - 130	. 9	3
Ethylbenzene				0.100	0.1230		mg/Kg			123	70 - 130	9	3
m-Xylene & p-Xylene				0.200	0.2213		mg/Kg			111	70 <u>-</u> 130		3
o-Xylene				0.100	0.1248		mg/Kg			125	70 - 130 70 - 130	9	3
, yielle				0.100	0.1210		mg/rtg			120	10-100	U	0
	LCSD	LCS	D										
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	117			70 - 130									
1,4-Difluorobenzene (Surr)	110			70 - 130									
Lab Sample ID: MB 880-253	1/5 A									liont Sr	ample ID: N	lathad	Plan
Matrix: Solid	1/ <b>3</b> -A									ment Sc	Prep Ty		
Analysis Batch: 2530												Batch	
Analysis Datch. 2000		мв	мв								гіер	Daten	1. 233
Analyto	D		Qualifier	RL		Un	:+	D	Dro	narod	Analyza	d	Dil Fa
Analyte Benzene		0200		0.00200						pared 21 10:02	Analyze		Dirra
Toluene		0200		0.00200		-	J/Kg			21 10:02	04/30/21 1		
				0.00200			J/Kg						
		0200					l∕Kg			21 10:02	04/30/21 1		
m-Xylene & p-Xylene		0400		0.00400			J/Kg			21 10:02	04/30/21 1		
o-Xylene		0200		0.00200		-	J/Kg			21 10:02	04/30/21 1		
Xylenes, Total		0400		0.00400			ı/Kg			21 10:02	04/30/21 1		
Total BTEX	<0.00	0400	U	0.00400		mg	J/Kg	0	4/30/	21 10:02	04/30/21 1	3:04	
		ΜВ	МВ										
Surrogate	%Reco	very	Qualifier	Limits					Pre	epared	Analyze	d	Dil Fa
4-Bromofluorobenzene (Surr)		102		70 - 130				0	4/30/	/21 10:02	04/30/21 1	3:04	
1,4-Difluorobenzene (Surr)		103		70 - 130				0	4/30/	/21 10:02	04/30/21 1	3:04	
Lab Sample ID: LCS 880-253	31/1-A							Clie	ent S	Sample	ID: Lab Co	ntrol S	ample
Matrix: Solid											Prep Ty		
Analysis Batch: 2530												Batch	
Analysis Baton: 2000				Spike	LCS	LCS					%Rec.	Baton	
Analyte				Added		Qualifie	r Unit		D	%Rec	Limits		
Benzene				0.100	0.1038	quamo	mg/Kg			104	70 - 130		
Toluene				0.100	0.1076		mg/Kg			104	70 - 130 70 - 130		
Ethylbenzene				0.100	0.1070		mg/Kg			112	70 - 130 70 - 130		
				0.100	0.1124					112	70 - 130 70 - 130		
m-Xylene & p-Xylene				0.200	0.2307		mg/Kg			115	70 - 130 70 - 130		
o-Xylene				0.100	0.1099		mg/Kg			110	10 - 130		
	LCS												
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	100			70 - 130									
1,4-Difluorobenzene (Surr)	105			70 - 130									
Lab Sample ID: LCSD 880-2	531/2-A						Cli	ent Sa	amp	ole ID: L	ab Control	Samp	le Dur
Matrix: Solid											Prep Ty		
Analysis Batch: 2530												Batch	
analysis Batom 2000				Spike	LCSD	LCSD					%Rec.	Laton	RPI
Analyte				Added		Qualifier	r Unit	1	D	%Rec	Limits	RPD	Limi

Eurofins Xenco, Carlsbad

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

Lab Sample ID: LCSD 880-25 Matrix: Solid	551/2-A						Cile	nt San	ipie iD. L	ab Control Prep Ty	-	
Analysis Batch: 2530											Batch	
				Spike	LCSD	LCSD				%Rec.		RP
Analyte				Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Toluene				0.100	0.1080		mg/Kg		108	70 - 130	0	3
Ethylbenzene				0.100	0.1121		mg/Kg		112	70 - 130	0	3
n-Xylene & p-Xylene				0.200	0.2306		mg/Kg		115	70 <sub>-</sub> 130	0	
p-Xylene				0.100	0.1098		mg/Kg		110	70 - 130	0	:
			_									
	LCSD											
Surrogate	%Recovery	Qua	lifier	Limits								
4-Bromofluorobenzene (Surr)	101			70 - 130								
1,4-Difluorobenzene (Surr)	103			70 - 130								
_ab Sample ID: MB 880-2540	)/5-A								Client Sa	ample ID: N	lethod	Blar
Matrix: Solid										Prep Ty		
Analysis Batch: 2530											Batch	
		ΜВ	МВ									
Analyte	R	esult	Qualifier	RL		Unit	[	о р	repared	Analyze	d	Dil F
Benzene	<0.00	0200	U	0.00200		mg/K			30/21 13:50	05/01/21 00		
Toluene		0200	U	0.00200		mg/K	-	04/3	80/21 13:50	05/01/21 00	0:58	
Ethylbenzene	<0.00	0200	U	0.00200		mg/K		04/3	80/21 13:50	05/01/21 00	0:58	
n-Xylene & p-Xylene	<0.00	0400	U	0.00400		mg/K		04/3	80/21 13:50	05/01/21 00	0:58	
p-Xylene	<0.0	0200	U	0.00200		mg/K	g	04/3	80/21 13:50	05/01/21 00	0:58	
Kylenes, Total	<0.0	0400	U	0.00400		mg/K	-	04/3	80/21 13:50	05/01/21 00	0:58	
Total BTEX		0400		0.00400		mg/K			80/21 13:50	05/01/21 00		
Surrogate	%Reco	MB	MB Qualifier	Limits				P	Prepared	Analyze	d	Dil Fa
4-Bromofluorobenzene (Surr)		102	quamer	70 - 130					30/21 13:50	05/01/21 0		2
1,4-Difluorobenzene (Surr)		100		70 - 130					30/21 13:50	05/01/21 0		
Lab Sample ID: LCS 880-254	0/1-A							Client	t Sample	ID: Lab Co	ntrol S	amp
Matrix: Solid										Prep Ty	pe: To	tal/N
Analysis Batch: 2530										Prep	Batch	: <b>25</b> 4
				Spike	LCS	LCS				%Rec.		
Analyte				Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene				0.100	0.09679		mg/Kg		97	70 - 130		
oluene				0.100	0.09743		mg/Kg		97	70 - 130		
Ethylbenzene				0.100	0.1008		mg/Kg		101	70 - 130		
n-Xylene & p-Xylene				0.200	0.2054		mg/Kg		103	70 - 130		
o-Xylene				0.100	0.09986		mg/Kg		100	70 - 130		
	LCS	LCS										
Surrogate	%Recovery			Limits								
I-Bromofluorobenzene (Surr)				70 - 130								
.4-Difluorobenzene (Surr)	106			70 - 130								
,												
Lab Sample ID: LCSD 880-25	540/2-A						Clie	nt San	nple ID: L	ab Control	Sampl	le Du
Matrix: Solid										Prep Ty		
Analysis Batch: 2530											Batch	
-				Spike	LCSD	LCSD				%Rec.		RF
				ار داد ۸	Desult	Qualifian	11 14		%Rec	Limite	RPD	Lin
Analyte				Added	Result	Qualifier	Unit	D	%Rec	Limits	RFD	
Analyte Benzene				0.100	0.1003	Quaimer	mg/Kg		100	70 - 130	4	

Eurofins Xenco, Carlsbad

Released to Imaging: 9/9/2021 8:38:37 AM
### **QC Sample Results**

Client: WSP USA Inc. Project/Site: Nash Depp East Job ID: 890-596-1 SDG: TE012921038

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

Lab Sample ID: LCSD 880-2540/2	2-A						CI	ient	Sam	ple ID: L	ab Control S	ampl	e Dup
Matrix: Solid											Prep Type	e: To	tal/N/
Analysis Batch: 2530											Prep B	atch	: <b>25</b> 4
				Spike	LCSD	LCSD					%Rec.		RP
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Ethylbenzene				0.100	0.1057		mg/Kg			106	70 - 130	5	3
m-Xylene & p-Xylene				0.200	0.2159		mg/Kg			108	70 - 130	5	3
o-Xylene				0.100	0.1048		mg/Kg			105	70 - 130	5	3
	LCSD	LCSI	D										
Surrogate	%Recovery	Qual	ifier	Limits									
4-Bromofluorobenzene (Surr)	101			70 - 130									
1,4-Difluorobenzene (Surr)	104			70 - 130									
lethod: 8015B NM - Diesel I	Range Or	gan	ics (DR	O) (GC)									
Lab Sample ID: MB 880-2518/1-A	<b>x</b>									Client Sa	ample ID: Met	hod	Blan
Matrix: Solid											Prep Type	e: To	tal/N
Analysis Batch: 2600											Prep B	atch	: 251
		ΜВ	MB										
Analyte	Re	sult	Qualifier	RL	·	Unit		D	P	repared	Analyzed		Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<	50.0	U	50.0		mg/ł	ζg		04/3	0/21 08:50	05/02/21 21:0	8	
Diesel Range Organics (Over	<	50.0	U	50.0	)	mg/ł	ίg		04/3	0/21 08:50	05/02/21 21:0	8	
C10-C28)				50.0		···· • //	·		04/0	0/04 00.50	05/00/04 04-0	•	
Oll Range Organics (Over C28-C36)		50.0		50.0		mg/ł				0/21 08:50	05/02/21 21:0		
Total TPH	<	50.0	U	50.0		mg/ł	g		04/3	0/21 08:50	05/02/21 21:0	8	
•	~ 5	MB		,					_				<b>.</b>
Surrogate	%Reco		Qualifier	Limits						repared	Analyzed		Dil Fa
1-Chlorooctane		101		70 - 130						0/21 08:50	05/02/21 21:0		
o-Terphenyl		103		70 - 130					04/3	0/21 08:50	05/02/21 21:0	8	
Lab Sample ID: LCS 880-2518/2-	Α							С	lient	Sample	ID: Lab Cont		
Matrix: Solid											Prep Type		
Analysis Batch: 2600											Prep B	atch	: 251
				Spike	LCS	LCS					%Rec.		
Analyte				Added	Result	Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics				1000	1115		mg/Kg			111	70 - 130		
(GRO)-C6-C10				1000	4074		melle			107	70 100		
Diesel Range Organics (Over C10-C28)				1000	1074		mg/Kg			107	70 - 130		
	LCS	LCS											
Surrogate	%Recovery		ifier	Limits									
1-Chlorooctane	113			70 - 130									
o-Terphenyl	101			70 - 130									
Lab Sample ID: LCSD 880-2518/3	3-A						CI	ient	Sam	ple ID: L	ab Control S	ampl	e Du
· · · · · · · · · · · · · · · · · · ·										-	Prep Typ		

							пері	ype. 10	
Analysis Batch: 2600							Pre	p Batch:	: 2518
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	947.2		mg/Kg		95	70 - 130	16	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1094		mg/Kg		109	70 - 130	2	20
C10-C28)									

Eurofins Xenco, Carlsbad

### **QC Sample Results**

Job ID: 890-596-1 SDG: TE012921038

Page 74 of 90

Client: WSP USA Inc. Project/Site: Nash Depp East

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

_ab Sample ID: LCSD 880-25	18/3-A						Cli	ent	Sam	ple ID: La	ab Control	Sample	e Dup
Matrix: Solid											Prep Ty	pe: Tot	tal/NA
Analysis Batch: 2600											Prep	Batch:	: 2518
	LCSD	LCSD	)										
Surrogate	%Recovery			Limits									
1-Chlorooctane	112			70 - 130									
o-Terphenyl	103			70 - 130									
Lab Sample ID: MB 880-2539/	/1-A									Client Sa	mple ID: M	lethod	Blank
Matrix: Solid											Prep Ty		
Analysis Batch: 2600												Batch:	
· · · · · · · · · · · · · · · · · · ·		мв м	мв										
Analyte	Re	sult (	Qualifier	R	L	Unit		D	Pr	epared	Analyze	d	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<5	50.0 l	U	50.0	0	mg/Kg	J		04/30	)/21 10:36	05/02/21 11		1
Diesel Range Organics (Over	<5	50.0 l	U	50.0	0	mg/Kg	ł		04/30	)/21 10:36	05/02/21 11	1:36	1
C10-C28) Oll Range Organics (Over C28-C36)	<5	50.0 l	U	50.0	0	mg/Kg	ı		04/30	)/21 10:36	05/02/21 11	1:36	1
Total TPH		50.0 l		50.0		mg/Kg				/21 10:36	05/02/21 11		 1
						5.5	'		• • •				
		MB I											
Surrogate			Qualifier	Limits	_					epared	Analyze		Dil Fac
1-Chlorooctane		101		70 - 130						0/21 10:36	05/02/21 11		1
- <b>T</b> In a second		100										1:36	1
o-Terphenyl Lab Sample ID: LCS 880-2539		108		70 - 130				CI		0/21 10:36 <mark>Sample I</mark>	05/02/21 11	ntrol Sa	
Lab Sample ID: LCS 880-2539 Matrix: Solid		108			LCS	LCS		СІ			ID: Lab Coi Prep Ty Prep	ntrol Sa	tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600		108		Spike		LCS Qualifier	Unit	CI		Sample I	ID: Lab Cor Prep Ty Prep %Rec.	ntrol Sa /pe: Tot	tal/NA
		108				LCS Qualifier	Unit mg/Kg	CI	lient		ID: Lab Coi Prep Ty Prep	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics		108		Spike Added	Result			CI	lient	Sample I	ID: Lab Cou Prep Ty Prep %Rec. Limits	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		108		Spike Added	Result	Qualifier		CI	lient	Sample I	ID: Lab Cou Prep Ty Prep %Rec. Limits	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		108		Spike Added 1000	Result 1157	Qualifier	mg/Kg	CI	lient	Sample I %Rec 116	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte				Spike Added 1000	Result 1157	Qualifier	mg/Kg	CI	lient	Sample I %Rec 116	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	9/2-A	LCS	 lier	Spike Added 1000	Result 1157	Qualifier	mg/Kg	CI	lient	Sample I %Rec 116	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	9/2-A	LCS	"ier	<b>Spike</b> Added 1000 1000	Result 1157	Qualifier	mg/Kg	CI	lient	Sample I %Rec 116	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	D/2-A LCS _%Recovery	LCS	fier	Spike Added 1000 1000 Limits	Result 1157	Qualifier	mg/Kg	CI	lient	Sample I %Rec 116	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130	ntrol Sa /pe: Tot	tal/NA
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl	9/2-A LCS <u>%Recovery</u> 96 92	LCS		Spike           Added           1000           1000           Limits           70 - 130	Result 1157	Qualifier	mg/Kg mg/Kg		D -	Sample I <u>%Rec</u> 116 94	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130	ntrol Sa (pe: Tot Batch:	tal/NA : 2539
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-255	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           Limits           70 - 130	Result 1157	Qualifier	mg/Kg mg/Kg		D -	Sample I <u>%Rec</u> 116 94	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130	ntrol Sa (pe: Tot Batch:	e Dup
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-255 Matrix: Solid	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           Limits           70 - 130	Result 1157	Qualifier	mg/Kg mg/Kg		D -	Sample I <u>%Rec</u> 116 94	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130	ntrol Sa (pe: Tot Batch: Sample (pe: Tot	e Dup tal/NA
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-255	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000	<b>Result</b> 1157 943.3	Qualifier	mg/Kg mg/Kg		D -	Sample I <u>%Rec</u> 116 94	ID: Lab Cor Prep Ty %Rec. Limits 70 - 130 70 - 130 70 - 130	ntrol Sa (pe: Tot Batch:	e Dup tal/NA : 2539
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-253 Matrix: Solid Analysis Batch: 2600	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           50 - 130           70 - 130           Spike	Result 1157 943.3 LCSD	Qualifier	mg/Kg mg/Kg Clie		D Sam	Sample I %Rec 116 94	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 Prep Ty Prep Ty Prep %Rec.	ntrol Sa (pe: Tot Batch: Sample (pe: Tot Batch:	e Dup tal/NA : 2539 : 2539 : 2539 RPD
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-255 Matrix: Solid Analysis Batch: 2600 Analyte	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           50 - 130           70 - 130           Spike           Added	Result 1157 943.3 UCSD Result	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clia		D -	Sample I %Rec 94 ple ID: La	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Sample pe: Tot Batch: ype: Tot Batch: RPD	e Dup tal/NA : 2539 tal/NA : 2539 RPD Limit
Lab Sample ID: LCS 880-2539 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-255 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           50 - 130           70 - 130           Spike	Result 1157 943.3 LCSD	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clie		D Sam	Sample I %Rec 116 94	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 Prep Ty Prep Ty Prep %Rec.	ntrol Sa (pe: Tot Batch: Sample (pe: Tot Batch:	e Dup tal/NA : 2539 
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-253 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           1000           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           1000	Result           1157           943.3           LCSD           Result           1133	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clie Unit mg/Kg		D Sam	Sample I           %Rec           116           94           ple ID: La           %Rec           113	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 8 b Control Prep Ty Prep %Rec. Limits 70 - 130	Sample ype: Tot Batch: ype: Tot Batch: RPD 2	e Dup tal/NA : 2539 tal/NA : 2539 RPD Limit 20
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-253 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics	9/2-A LCS <u>%Recovery</u> 96 92	LCS	fier	Spike           Added           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           1000           50 - 130           70 - 130           Spike           Added	Result 1157 943.3 UCSD Result	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clia		D Sam	Sample I %Rec 94 ple ID: La	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	Sample pe: Tot Batch: ype: Tot Batch: RPD	e Dup tal/NA : 2539 tal/NA : 2539 RPD Limit
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-253 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	9/2-A LCS <u>%Recovery</u> 96 92	LCS Qualif		Spike           Added           1000           1000           1000           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           1000	Result           1157           943.3           LCSD           Result           1133	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clie Unit mg/Kg		D Sam	Sample I           %Rec           116           94           ple ID: La           %Rec           113	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 8 b Control Prep Ty Prep %Rec. Limits 70 - 130	Sample ype: Tot Batch: ype: Tot Batch: RPD 2	e Dup tal/NA : 2539 tal/NA : 2539 RPD Limit 20
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-253 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	9/2-A LCS %Recovery 96 92 39/3-A	LCS Qualif		Spike           Added           1000           1000           1000           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           1000	Result           1157           943.3           LCSD           Result           1133	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clie Unit mg/Kg		D Sam	Sample I           %Rec           116           94           ple ID: La           %Rec           113	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 8 b Control Prep Ty Prep %Rec. Limits 70 - 130	Sample ype: Tot Batch: ype: Tot Batch: RPD 2	e Dup tal/NA : 2539 tal/NA : 2539 RPD Limit 20
Lab Sample ID: LCS 880-2538 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-253 Matrix: Solid Analysis Batch: 2600 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	D/2-A LCS / %Recovery 96 92 39/3-A LCSD /	LCS Qualif		Spike           Added           1000           1000           1000           1000           Limits           70 - 130           70 - 130           Spike           Added           1000	Result           1157           943.3           LCSD           Result           1133	Qualifier LCSD Qualifier	mg/Kg mg/Kg Clie Unit mg/Kg		D Sam	Sample I           %Rec           116           94           ple ID: La           %Rec           113	ID: Lab Cor Prep Ty Prep %Rec. Limits 70 - 130 70 - 130 70 - 130 70 - 130 8 b Control Prep Ty Prep %Rec. Limits 70 - 130	Sample ype: Tot Batch: ype: Tot Batch: RPD 2	e Dup tal/NA : 2539 tal/NA : 2539 RPD Limit 20

### **QC Sample Results**

Client: WSP USA Inc. Project/Site: Nash Depp East

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

Lab Sample ID: MB 880-2551/1	- <b>A</b>									Client Sa	mple ID:		
Matrix: Solid													otal/NA
Analysis Batch: 2598											Pre	p Batc	h: 2551
		BMB						_	_			_	
Analyte			fier	RL		Unit		D		repared	Analyz		Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50	.0 U		50.0		mg/K	9		04/30	0/21 14:09	05/02/21	11:36	
Diesel Range Organics (Over	<50	.0 U		50.0		mg/K	n		04/30	0/21 14:09	05/02/21	11.36	
C10-C28)				00.0		mg/re	9		0 1/00		00/02/21	11.00	
Oll Range Organics (Over C28-C36)	<50	.0 U		50.0		mg/K	g		04/30	0/21 14:09	05/02/21	11:36	
Total TPH	<50	.0 U		50.0		mg/K	g		04/30	0/21 14:09	05/02/21	11:36	
	_												
		IB MB							_				
Surrogate	%Recove			imits				_		repared	Analyz		Dil Fa
1-Chlorooctane		99		0 - 130						0/21 14:09	05/02/21		
p-Terphenyl	11	14	/	0_130					04/30	0/21 14:09	05/02/21	11:36	
Lab Sample ID: LCS 880-2551/2	2_^							CI	iont	Samplo	ID: Lab C	ontrol	Sample
Matrix: Solid	2-A							CI	ent	Sample		Type: T	
												p Batc	
Analysis Batch: 2598			Spik		109	LCS					%Rec.	p Date	11. 255
Analyte			Adde			Qualifier	Unit		D	%Rec	Limits		
Gasoline Range Organics			100		1121	Quaimer	mg/Kg		_	112	70 - 130		
(GRO)-C6-C10			100	,	1121		mg/itg			112	70 - 150		
Diesel Range Organics (Over			100	)	1090		mg/Kg			109	70 - 130		
C10-C28)													
C10-C28)		~ 6											
	LCS LO		Limite										
Surrogate	%Recovery Q		<i>Limits</i>	<u></u>									
Surrogate	%Recovery Q 104		70 - 13										
Surrogate	%Recovery Q												
Surrogate 1-Chlorooctane o-Terphenyl	%Recovery 0 104 104		70 - 13				Cli	ent S	Sam	ple ID: L	ab Contro	ol Samr	ole Du
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2551	%Recovery 0 104 104		70 - 13				Cli	ent S	Sam	ple ID: L	ab Contro Prep 1		
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2551 Matrix: Solid	%Recovery 0 104 104		70 - 13				Cli	ent S	Sam	ple ID: L	Prep 1	Type: T	otal/N/
Surrogate 1-Chlorooctane 5-Terphenyl Lab Sample ID: LCSD 880-2551 Matrix: Solid	%Recovery 0 104 104		70 - 13	0	LCSD	LCSD	CI	ent S	Sam	ple ID: L	Prep 1		otal/N/ h: 255
Surrogate 1-Chlorooctane 5-Terphenyl Lab Sample ID: LCSD 880-2554 Matrix: Solid Analysis Batch: 2598	%Recovery 0 104 104		70 - 13 70 - 13	9		LCSD Qualifier	Cli	ent S	Sam	ple ID: L %Rec	Prep 1 Pre	Type: T	otal/N/ h: 255 RPI
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-255 Matrix: Solid Analysis Batch: 2598 Analyte	%Recovery 0 104 104		70 - 13 70 - 13 70 Spik	9 9 1				ent S			Prep 1 Pre %Rec.	Type: Tep Batc	otal/N/ h: 255 RPI Limi
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics	%Recovery 0 104 104		70 - 13 70 - 13 70 - 13 Spik Adde	9 9 1	Result		Unit	ent S		%Rec	Prep 7 Pre %Rec. Limits	Type: To p Batc 	otal/N/ h: 255 RPI Limi
Surrogate 1-Chlorooctane p-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 0 104 104		70 - 13 70 - 13 70 - 13 Spik Adde	e 1 0	Result		Unit	ent S		%Rec	Prep 7 Pre %Rec. Limits	Type: To p Batc 	otal/N/ h: 2557 RPI Limi
Surrogate 1-Chlorooctane p-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 0 104 104		70 - 13 70 - 13 70 - 13 Spik Adde	e 1 0	Result 1115		Unit mg/Kg	ent S		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/N/ h: 2557 RPI Limi
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 0 104 104	ualifier	70 - 13 70 - 13 70 - 13 Spik Adde	e 1 0	Result 1115		Unit mg/Kg	ent S		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/N/ h: 2557 RPI Limi
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2554 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery         Q           104         104           1/3-A	ualifier	70 - 13 70 - 13 70 - 13 Spik Adde	e 1 0	Result 1115		Unit mg/Kg	ent S		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/N/ h: 2557 RPI Limi
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2554 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	%Recovery         Q           104         104           1/3-A	CSD	70 - 13 70 - 13 70 - 13 Spik Adde 100	2 2 2 2 2	Result 1115		Unit mg/Kg	ent \$		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/NA h: 2551 RPE Limi 20
Surrogate 1-Chlorooctane b-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane	%Recovery         Q           104         104           104         104           1/3-A	CSD	70 - 13 70 - 13 <b>Spik</b> Adde 100 100	9 1 0 0 0	Result 1115		Unit mg/Kg	ent \$		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/N/ h: 2557 RPI Limi
Surrogate 1-Chlorooctane 2-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane 2-Terphenyl	%Recovery         Q           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 Spik Adde 100 100 100 100 100 100 100 100 100 10	9 1 0 0 0	Result 1115		Unit mg/Kg	ent \$		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/N/ h: 255 RPI Limi
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl	%Recovery         Q           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 Spik Adde 100 100 100 100 100 100 100 100 100 10	9 1 0 0 0	Result 1115		Unit mg/Kg	ent \$ 		%Rec	Prep 7 Pre %Rec. Limits 70 - 130	Type: Top Batc RPD 0	otal/N/ h: 255 RPI Lim 2
Surrogate 1-Chlorooctane p-Terphenyl Lab Sample ID: LCSD 880-2554 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane p-Terphenyl lethod: 300.0 - Anions, lor	%Recovery         Q           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101           101         101	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 Spik Adde 100 100 100 100 100 100 100 100 100 10	9 1 0 0 0	Result 1115		Unit mg/Kg	ent \$ 	<u>D</u>	%Rec 112 104	Prep 7 Pre %Rec. Limits 70 - 130	Type: Tr p Batc RPD 0 5	iotal/N. h: 255 RP Lim 2 2
Surrogate 1-Chlorooctane 2-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane 2-Terphenyl lethod: 300.0 - Anions, lor Lab Sample ID: MB 880-2564/1	%Recovery         Q           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101           101         101	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 Spik Adde 100 100 100 100 100 100 100 100 100 10	9 1 0 0 0	Result 1115		Unit mg/Kg	ent 5	<u>D</u>	%Rec 112 104	Prep 7 Pre %Rec. Limits 70 - 130 70 - 130	Type: Tr p Batc RPD 0 5	d Blan
Surrogate 1-Chlorooctane p-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane p-Terphenyl lethod: 300.0 - Anions, lor Lab Sample ID: MB 880-2564/1 Matrix: Solid	%Recovery         Q           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101           101         101	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 Spik Adde 100 100 100 100 100 100 100 100 100 10	9 1 0 0 0	Result 1115		Unit mg/Kg	ent 5	<u>D</u>	%Rec 112 104	Prep 7 Pre %Rec. Limits 70 - 130 70 - 130	Type: Tr p Batc RPD 0 5 5	d Blan
Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl lethod: 300.0 - Anions, lor Lab Sample ID: MB 880-2564/1 Matrix: Solid	%Recovery         Q           104         104           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101           01         101           n Chromatog         -A	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 Spik Adde 100 100 100 100 100 100 100 100 100 10	9 1 0 0 0	Result 1115		Unit mg/Kg	ent \$	<u>D</u>	%Rec 112 104	Prep 7 Pre %Rec. Limits 70 - 130 70 - 130	Type: Tr p Batc RPD 0 5 5	tiotal/N/ h: 255 RPC Limi 20 20
C10-C28) Surrogate 1-Chlorooctane o-Terphenyl Lab Sample ID: LCSD 880-2557 Matrix: Solid Analysis Batch: 2598 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate 1-Chlorooctane o-Terphenyl lethod: 300.0 - Anions, lor Lab Sample ID: MB 880-2564/1 Matrix: Solid Analysis Batch: 2689 Analyte	%Recovery         Q           104         104           1/3-A         4           %Recovery         Q           %Recovery         Q           98         101           n Chromatog         -A	ualifier CSD ualifier	70 - 13 70 - 13 70 - 13 <b>Spik</b> Adde 100 100 100 200 100 100	9 1 0 0 0	Result 1115		Unit mg/Kg	ent S	<u>D</u>	%Rec 112 104	Prep 7 Pre %Rec. Limits 70 - 130 70 - 130	Type: Trep Batc	tiotal/N/ h: 255 RPC Limi 20 20

Job ID: 890-596-1

SDG: TE012921038

Client: WSP USA Inc.

Project/Site: Nash Depp East

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

Lab Sample ID: LCS 880-2564/2-/	4						Client	Sampl	le ID: Lab C		
Matrix: Solid									Prep	Type: S	oluble
Analysis Batch: 2689											
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250	255.1		mg/Kg		102	90 - 110		
- Lab Sample ID: LCSD 880-2564/3	3-A					Clier	nt Sam	ple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid								· · · ·		Type: S	
Analysis Batch: 2689											
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	255.4		mg/Kg		102	90 - 110	0	20
_ Lab Sample ID: 890-596-3 MS									Client Sam	ple ID: F	PH01A
Matrix: Solid										Type: S	
Analysis Batch: 2689											
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	<4.98	U	249	243.6		mg/Kg		97	90 _ 110		
Lab Sample ID: 890-596-3 MSD									Client Sam	ple ID: F	PH01A
Matrix: Solid										Type: Se	
Analysis Batch: 2689										~ •	
-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	<4.98	U	249	244.1		mg/Kg		98	90 - 110	0	20

### **QC Association Summary**

Client: WSP USA Inc. Project/Site: Nash Depp East

### Job ID: 890-596-1 SDG: TE012921038

2921038

5 6 7

### Analysis Batch: 2447

**GC VOA** 

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batc
390-596-1	FS01	Total/NA	Solid	8021B	249
/IB 880-2450/5-A	Method Blank	Total/NA	Solid	8021B	245
IB 880-2496/5-A	Method Blank	Total/NA	Solid	8021B	249
CS 880-2496/1-A	Lab Control Sample	Total/NA	Solid	8021B	249
_CSD 880-2496/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	249
ep Batch: 2450					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
MB 880-2450/5-A	Method Blank	Total/NA	Solid	5035	
ep Batch: 2496					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bato
390-596-1	FS01	Total/NA	Solid	5035	
/IB 880-2496/5-A	Method Blank	Total/NA	Solid	5035	
.CS 880-2496/1-A	Lab Control Sample	Total/NA	Solid	5035	
CSD 880-2496/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
nalysis Batch: 2530					
_ab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Bato
90-596-2	PH01	Total/NA	Solid	8021B	254
90-596-3	PH01A	Total/NA	Solid	8021B	254
90-596-4	PH02	Total/NA	Solid	8021B	254
90-596-5	PH02A	Total/NA	Solid	8021B	254
90-596-6	PH03	Total/NA	Solid	8021B	253
90-596-7	PH03A	Total/NA	Solid	8021B	253
90-596-8	PH04	Total/NA	Solid	8021B	253
90-596-9	PH04A	Total/NA	Solid	8021B	253
/IB 880-2531/5-A	Method Blank	Total/NA	Solid	8021B	253
/IB 880-2540/5-A	Method Blank	Total/NA	Solid	8021B	254
.CS 880-2531/1-A	Lab Control Sample	Total/NA	Solid	8021B	253
CS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	8021B	25
CSD 880-2531/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	253
CSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	254
rep Batch: 2531					
_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Bate
90-596-6	PH03	Total/NA	Solid	5035	
90-596-7	PH03A	Total/NA	Solid	5035	
90-596-8	PH04	Total/NA	Solid	5035	
90-596-9	PH04A	Total/NA	Solid	5035	
/IB 880-2531/5-A	Method Blank	Total/NA	Solid	5035	
CS 880-2531/1-A	Lab Control Sample	Total/NA	Solid	5035	
CSD 880-2531/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
ep Batch: 2540					
ab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Bate
90-596-2	PH01	Total/NA	Solid	5035	
90-596-3	PH01A	Total/NA	Solid	5035	
90-596-4	PH02	Total/NA	Solid	5035	
90-596-5	PH02A	Total/NA	Solid	5035	

5035

Method Blank

MB 880-2540/5-A

Total/NA

Solid

### GC VOA (Continued)

### Prep Batch: 2540 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
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	

### GC Semi VOA

### Prep Batch: 2518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-596-4	PH02	Total/NA	Solid	8015NM Prep		8
890-596-5	PH02A	Total/NA	Solid	8015NM Prep		
890-596-6	PH03	Total/NA	Solid	8015NM Prep		Q
890-596-7	PH03A	Total/NA	Solid	8015NM Prep		3
890-596-8	PH04	Total/NA	Solid	8015NM Prep		
890-596-9	PH04A	Total/NA	Solid	8015NM Prep		
MB 880-2518/1-A	Method Blank	Total/NA	Solid	8015NM Prep		
LCS 880-2518/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep		
LCSD 880-2518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep		
Prep Batch: 2539						
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	13
890-596-3	PH01A	Total/NA	Solid	8015NM Prep		

### Prep Batch: 2539

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	Ĺ
890-596-3	PH01A	Total/NA	Solid	8015NM Prep		
MB 880-2539/1-A	Method Blank	Total/NA	Solid	8015NM Prep		
LCS 880-2539/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep		
LCSD 880-2539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep		

### Prep Batch: 2551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Total/NA	Solid	8015NM Prep	
890-596-2	PH01	Total/NA	Solid	8015NM Prep	
MB 880-2551/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2551/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2551/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

### Analysis Batch: 2598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Total/NA	Solid	8015B NM	2551
890-596-2	PH01	Total/NA	Solid	8015B NM	2551
MB 880-2551/1-A	Method Blank	Total/NA	Solid	8015B NM	2551
LCS 880-2551/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2551
LCSD 880-2551/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2551

### Analysis Batch: 2600

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-596-3	PH01A	Total/NA	Solid	8015B NM	2539
890-596-4	PH02	Total/NA	Solid	8015B NM	2518
890-596-5	PH02A	Total/NA	Solid	8015B NM	2518
890-596-6	PH03	Total/NA	Solid	8015B NM	2518
890-596-7	PH03A	Total/NA	Solid	8015B NM	2518
890-596-8	PH04	Total/NA	Solid	8015B NM	2518
890-596-9	PH04A	Total/NA	Solid	8015B NM	2518
MB 880-2518/1-A	Method Blank	Total/NA	Solid	8015B NM	2518
MB 880-2539/1-A	Method Blank	Total/NA	Solid	8015B NM	2539

### Eurofins Xenco, Carlsbad

5

Job ID: 890-596-1

SDG: TE012921038

### **QC Association Summary**

### GC Semi VOA (Continued)

### Analysis Batch: 2600 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
LCS 880-2518/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2518	
LCS 880-2539/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2539	
LCSD 880-2518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2518	
LCSD 880-2539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2539	

### HPLC/IC

### Leach Batch: 2564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Soluble	Solid	DI Leach	
890-596-2	PH01	Soluble	Solid	DI Leach	
890-596-3	PH01A	Soluble	Solid	DI Leach	
890-596-4	PH02	Soluble	Solid	DI Leach	
890-596-5	PH02A	Soluble	Solid	DI Leach	
890-596-6	PH03	Soluble	Solid	DI Leach	
890-596-7	PH03A	Soluble	Solid	DI Leach	
890-596-8	PH04	Soluble	Solid	DI Leach	
890-596-9	PH04A	Soluble	Solid	DI Leach	
MB 880-2564/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2564/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2564/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-596-3 MS	PH01A	Soluble	Solid	DI Leach	
890-596-3 MSD	PH01A	Soluble	Solid	DI Leach	

### Analysis Batch: 2689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Soluble	Solid	300.0	2564
890-596-2	PH01	Soluble	Solid	300.0	2564
890-596-3	PH01A	Soluble	Solid	300.0	2564
890-596-4	PH02	Soluble	Solid	300.0	2564
890-596-5	PH02A	Soluble	Solid	300.0	2564
890-596-6	PH03	Soluble	Solid	300.0	2564
890-596-7	PH03A	Soluble	Solid	300.0	2564
890-596-8	PH04	Soluble	Solid	300.0	2564
890-596-9	PH04A	Soluble	Solid	300.0	2564
MB 880-2564/1-A	Method Blank	Soluble	Solid	300.0	2564
LCS 880-2564/2-A	Lab Control Sample	Soluble	Solid	300.0	2564
LCSD 880-2564/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2564
890-596-3 MS	PH01A	Soluble	Solid	300.0	2564
890-596-3 MSD	PH01A	Soluble	Solid	300.0	2564

### Job ID: 890-596-1 SDG: TE012921038

### Lab Chronicle

Client: WSP USA Inc. Project/Site: Nash Depp East

### Client Sample ID: FS01

Date Collected: 04/28/21 13:23 Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2496	04/29/21 16:15	MR	XM
Total/NA	Analysis	8021B		1	2447	04/30/21 09:01	KL	XM
Total/NA	Prep	8015NM Prep			2551	04/30/21 14:09	DM	ХМ
Total/NA	Analysis	8015B NM		1	2598	05/02/21 20:05	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:57	WP	XM

### Client Sample ID: PH01 Date Collected: 04/28/21 14:07

### Date Received: 04/29/21 09:08

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 03:29	MR	XM
Total/NA	Prep	8015NM Prep			2551	04/30/21 14:09	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 20:26	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:02	WP	XM

### **Client Sample ID: PH01A**

### Date Collected: 04/28/21 14:13

### Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 03:49	MR	XM
Total/NA	Prep	8015NM Prep			2539	04/30/21 10:36	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/02/21 20:26	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:07	WP	XM

### Client Sample ID: PH02 Date Collected: 04/28/21 14:20 Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 04:10	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 01:43	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:23	WP	XM

### Lab Sample ID: 890-596-3 Matrix: Solid

Lab Sample ID: 890-596-4

Matrix: Solid

Lab Sample ID: 890-596-2

Matrix: Solid

## SDG: TE012921038

Job ID: 890-596-1

### Lab Sample ID: 890-596-1 Matrix: Solid

Eurofins Xenco, Carlsbad

### Lab Chronicle

Client: WSP USA Inc. Project/Site: Nash Depp East

### **Client Sample ID: PH02A** Date Collected: 04/28/21 14:23

Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Number	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 04:30	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 02:03	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:28	WP	XM

### **Client Sample ID: PH03** Date Collected: 04/28/21 14:30

### Date Received: 04/29/21 09:08

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 19:26	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 02:46	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:44	WP	XM

### **Client Sample ID: PH03A**

### Date Collected: 04/28/21 14:34

### Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 19:46	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 03:07	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:49	WP	XM

### **Client Sample ID: PH04** Date Collected: 04/28/21 14:39 Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 20:06	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 03:28	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:54	WP	XM

Job ID: 890-596-1 SDG: TE012921038

### Lab Sample ID: 890-596-5 Matrix: Solid

Lab Sample ID: 890-596-6

Matrix: Solid

5 9

### Lab Sample ID: 890-596-7 Matrix: Solid

Lab Sample ID: 890-596-8

Matrix: Solid

### Lab Chronicle

Client: WSP USA Inc. Project/Site: Nash Depp East

### Client Sample ID: PH04A Date Collected: 04/28/21 14:42

Date Received: 04/29/21 09:08

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 20:27	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 03:48	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	СН	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:59	WP	XM

### Laboratory References:

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

Eurofins Xenco, Carlsbad

1 uge 02 0J 9

### Job ID: 890-596-1 SDG: TE012921038

Lab Sample ID: 890-596-9 Matrix: Solid

Released to Imaging: 9/9/2021 8:38:37 AM

Accreditation/Certification Summary

Client: WSP USA Inc. Project/Site: Nash Depp East Job ID: 890-596-1 SDG: TE012921038

### Laboratory: Eurofins Xenco, Midland

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

uthority	Pr	ogram	Identification Number	Expiration Date
exas	NE	ELAP	T104704400-20-21	06-30-21
The following analytes	are included in this report, bu	it the laboratory is not certil	fied by the governing authority. This list ma	ay include analytes for v
the agency does not o Analysis Method		Matrix	Analyte	
the agency does not or Analysis Method 8015B NM	fer certification . Prep Method 8015NM Prep	Matrix Solid	Analyte Total TPH	

Eurofins Xenco, Carlsbad

. . .\_ ---

Page 83 of 90

10

### **Method Summary**

Client: WSP USA Inc. Project/Site: Nash Depp East Job ID: 890-596-1 SDG: TE012921038

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

\_\_\_\_\_

5
8
9
11
13

Eurofins Xenco, Carlsbad

### Sample Summary

Client: WSP USA Inc. Project/Site: Nash Depp East

Job ID: 890-596-1
SDG: TE012921038

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Dept
890-596-1	FS01	Solid	04/28/21 13:23	04/29/21 09:08	- 2.5
890-596-2	PH01	Solid	04/28/21 14:07	04/29/21 09:08	- 1
890-596-3	PH01A	Solid	04/28/21 14:13	04/29/21 09:08	- 2.5
890-596-4	PH02	Solid	04/28/21 14:20	04/29/21 09:08	- 1
890-596-5	PH02A	Solid	04/28/21 14:23	04/29/21 09:08	- 2.5
90-596-6	PH03	Solid	04/28/21 14:30	04/29/21 09:08	- 1
390-596-7	PH03A	Solid	04/28/21 14:34	04/29/21 09:08	- 2.5
890-596-8	PH04	Solid	04/28/21 14:39	04/29/21 09:08	- 1
390-596-9	PH04A	Solid	04/28/21 14:42	04/29/21 09:08	- 2.5

Job ID: 890-596-1 SDG: TE012921038	
	5
	8
	9
	12
	13

Page 28 of 32

XIII 2000         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 (813-520-2000)         W           Dan Moir         Bill to: (if different)         Kyle Littrell         Kyle Tittrell         Midland, TX (430-355-0900)         Tampa, FL (813-520-2000)         W
Hobbs, NM (5/5-392-750)     Phoenix, AZ (480-355-0900)     Aulanta, GA (770-449-6800)     Iampa, FL (613-620-2000)       Dan Moir     Bill to: (if different)     Kyle Littrell
Company Name: WSP Permian office Company Name: X10 Energy Program: USI/PS1 Unr
3300 North A Street Address: 3104 e Green Street State of Project:
City, State ZIP: Midland, Tx 79705 City, State ZIP: Carlsbad, NM, 88220 Reporting:Level II [evel III
Phone: (432) 236-3849 Email: Elliot Lee Dwsp. com, Tacoma Monissey@wsp.com Deliverables: EDD
Project Name: Nash Deep East Turn Around ANALYSIS REQUEST
ar: TE012921038 Ro
Sampler's Name: Elliot Lee Due Date:
SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: (Yes No
iometer ID
No / V/U-() - () - () - () - () - () - () - ()
:: Yes No N/A Total Containers: r of PA 80
Sample Identification Matrix Date Time Depth Number BTEX (E
××
PH01A S 4/28/2021 14:13 2.5' 1 X X X
PH02 S 4/28/2021 14:20 1 1 X X X
PH02A S 4/28/2021 14:23 2.5' 1 X X X
PH03 S 4/28/2021 14:30 1' 1 X X X
PH03A S 4/28/2021 14:34 2.5' 1 X X X
PH04 S 4/28/2021 14:39 1' 1 X X X
PH04A S 4/28/2021 14:42 2.5' 1 X X X
As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn
be anal
Notice: Signature of this document and reliaquiekment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$5.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.
Relinquished by: (Signature) Received by: (Signature) Date/Time Relinquished by: (Signature) Received by: (Signature)
6060 2.62.H and MN MN // MR. 1

Released to Imaging: 9/9/2021 8:38:37 AM



# Eurofins Xenco, Carlsbad

## Chain of Custody Record

13



Environment Testing

Carlsbad NM 88220 Phone 575-988-3199 Fax: 575-988-3199			. 0030			2															~ .	America	ω.	i com a
Client Information (Sub Contract Lab)	Sampler:			Lab PM Krame	Lab PM Kramer Lessica	ŝ						Carrie	Carrier Tracking No(s)	ing No	(s).			COC No:	COC No:					
Client Contact: Shipping/Receiving	Phone			E-Mail	E-Mail iessica kramer@eurofinset.com	ner@	Purofi	nset	Ê			State o	State of Origin	5 7				Page:	Page: Page: Page 1 of 1	<u> </u>				
Company Eurofins Xenco					Accreditations Required (See note) NELAP - Louisiana NELAP	ations	Requir uisiar	ed (See	LAP	Texas	L							-068 # qor	Job #: 890-596-1	-				
Address: 1211 W Florida Ave	Due Date Requested 5/5/2021	ed							Anal	/sis	Req	lysis Requested	ed					Pres	ervati	Preservation Codes	odes			
City Midland	TAT Requested (days)	ays)			<u>(per d</u> stand													אשר	HCL NaOH	\$	)ZS	- Hexane	}	
State Zip TX, 79701					<u>basellitetti</u> S		·										<del>ang pan</del>		Nitric Acid NaHSO4		ρυς	Q Na2SO3	8 8 8	
Phone <sup>.</sup> 432-704-5440(Tel)	PO#				<u>Willister</u> konstatoren	трн	1e										<del>gijne ogs opro</del> tallkanne et an		Amchlor		יג אי	H2SC	403	-
Email	WO#				Sectore and	p Full	Chlori												Ice Di Water		<	Acetone MCAA	ne	Acetone
Project Name:	Project #:				00-76/600	_Pre		×									ner	- <del>.</del> 	EDTA		۶v		-5	2
Nasii Depp East	89000004				10076	M_S		BTE.		_							nta	r r	ļ		٢		(finade) in in	3)
Sile	#WOSS				Second States	8016NI		_Calc E									of co	Other-	۲ 					
			0		iltered n MS/N	D_NM/8	GFM_2	035FP_									umber							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample (	(C=comp, G=orab)	S=solid O=waste/oil, BT=Tissue, A=Air)	Yookaana yo	3015MC		3021B/6									lotal N		2	rial	netr	in the	Special Instructions/Nato	5
	X	$\Box$	Ωũ.	All and a	X	500		L Zetend	lannai		(and )			-			X						$\ $	
FS01 (890-596-1)	4/28/21	13 23 Mountain		Solid		х	×	×									ا بقير ا							
РН01 (890-596-2)	4/28/21	14 07 Mountain		Solid		×	×	×									*						ĺ	
PH01A (890-596-3)	4/28/21	14 13 Mountain		Solid		×	×	×		-							<b>é</b> [	ottu Thiosper D						
PH02 (890-596-4)	4/28/21	14 20 Mountain		Solid		×	×	×	_								<b>(A</b> )							
PH02A (890-596-5)	4/28/21	14 23 Mountain		Solid		×	<u>×</u>	<u>×</u>										000.4012						
PH03 (890-596-6)	4/28/21	14 30 Mountain		Solid		×	×	×																
PH03A (890-596-7)	4/28/21	14 34 Mountain		Solid		×	×	×									4	<u>h-omron-28</u>						
PH04 (890-596-8)	4/28/21	14 39 Mountain		Solid		×	×	×									<u>, 1</u>	<u>kalifirmentati</u>						
PH04A (890-596-9)	4/28/21	14 42 Mountain		Solid		×	×	×	$\vdash$								( <b>1</b>	<u>Cattlescon (arti</u>						
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 laboratorian 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 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.	; places the ownership ; being analyzed the s turn the signed Chain	p of method ana samples must be of Custody attes	lyte & accredita shipped back : ting to said cor	ation complian to the Eurofins nplicance to E	ce upon Xenco urofins	i out su LLC la Xenco	bcontr borato LLC	act labo ry or ot	oratorie ner insi	s. Thi ructior	s samp Is will b	ile ship be prov	ided .	s forwa Any ch	irded u anges	Inder of acc	chain-	of-cust tion st	ody I atus sh	f the lai louid b	borato e brou	ry doei ght to l	s not cu Eurofin	If the laboratory does not currently should be brought to Eurofins Xenco
Possible Hazard Identification					Sai	mple	Disp	Sample Disposal ( A fee may be assessed if samples	A fee	may	be a	sses	sed ii	sam	ples	] are r	etain	ed lo	ongei	are retained longer than	-	month)		
Deliverable Requested          IV Other (specify)	Primary Deliverable Rank	ahle Rank 2			2		netra	Chariel Instructions/DC				ispos	Disposal By Lab	Lao			Arci	Archive For	ģ			Months	ns	
					H																			
Entry Nt Relifiquished by		Date			Time		F.						Method of Shipment	l of Sh	ipment									
Relinquished by	Date/Time:	2(	0 0	Company Company		Receiv	Received by	100		U.s	12							5	00	M di	$\sim$	Company		
Relinguished by:	Date/Time:		2	Comnany		Dene	Pereived hv								DataTime						_		1	
Custody Seals Infact Custody Seal No						0000	Tom		2	2														
						Coole	r Temp	Coder Temperature(s) °	0	and Ot	her Re	and Other Remarks												

Ver 11/01/2020

Job Number: 890-596-1 SDG Number: TE012921038

List Source: Eurofins Carlsbad

### Login Sample Receipt Checklist

Client: WSP USA Inc.

### Login Number: 596 List Number: 1

<6mm (1/4").

Creator: Clifton, Cloe

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

### Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 596 List Number: 2 Creator: Copeland, Tatiana

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

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

14

Job Number: 890-596-1 SDG Number: TE012921038

List Source: Eurofins Midland

List Creation: 04/29/21 04:03 PM

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	30756
	Action Type:
	[C-141] Release Corrective Action (C-141)

### CONDITIONS

Created	Condition	Condition
Ву		Date
rhamlet	XTO's deferral requests to complete final remediation of soil sample location SS03 during any future major deconstruction/alteration and/or abandonment, whichever occurs first. At this time,	9/9/2021
	OCD approves the request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open	
	environmental issue. This is a Federal site and will require like approval from BLM.	

CONDITIONS

Action 30756