



WSP USA

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

March 17, 2022

District I
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

**RE: Remediation Work Plan
Azores Federal Com 004H
Incident Number NAPP2124346388
Lea County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of COG Operating, LLC (COG), presents the following Remediation Work Plan (Work Plan) detailing site assessment activities completed to date and proposing additional remedial actions to address the impacted soil resulting from a release at the at the Azores Federal Com 004H (Site) in Unit N, Section 29, Township 24 South, Range 32 East, in Lea County, New Mexico (Figure 1).

RELEASE BACKGROUND

On August 22, 2021, corrosion caused a pinhole in the flow line, resulting in the release of approximately 0.324 barrels (bbls) of crude oil and 6.153 bbls of produced water into the adjacent pasture. No released fluids were recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on August 31, 2021. The release was assigned Incident Number NAPP2124346388.

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 greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During February 2022, WSP installed a soil boring (BH01) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring BH01 was drilled to a depth of 105 feet bgs. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole lithologic/soil sampling log is included in Attachment 1. The location of the borehole is approximately 240 feet northwest of the site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed



that groundwater beneath the Site is greater than 105 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing water or significant watercourse to the Site is an emergent palustrine, located approximately 1.1 miles northeast of the Site. The Site is greater than 200 feet of a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top four feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top four feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On September 7, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected three preliminary assessment soil samples (SS01 through SS03) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC)



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

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated that TPH-GRO/TPH-DRO, TPH, and chloride concentrations exceeded the Site Closure Criteria and/or the reclamation standards. Based on visible observations and laboratory analytical results for preliminary samples SS01 through SS03, additional remediation activities were warranted.

While at the Site, WSP personnel observed a potential second release approximately 40 feet west of the subject Azores Fed #004H release location. The second release extent measured approximately 1,304 square feet and traveled 25 feet from the lease road into the adjacent pasture. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. WSP completed field screening of surface soil within the potential release extent, using a PID and Hach® chloride QuanTab® test strips. Field screening results indicated that TPH concentrations were elevated. The release appeared to be from the same flow line as the Azores Federal Com 004H release, but a separate occurrence. Based on visible staining and field screening results, additional remediation activities were warranted.

DELINEATION SOIL SAMPLING AND ANALYTICAL RESULTS

On October 8, 2021, WSP personnel returned to the Site to complete delineation activities. Five potholes (PH01 through PH05) were advanced via backhoe within the release extents to delineate the vertical extent of impacted soil. Potholes PH01 through PH03 were advanced via backhoe within the eastern release extent and potholes PH04 and PH05 were advanced within the western release extent. The potholes were advanced to a maximum depth of 16 feet bgs. Delineation soil samples were collected from the potholes at depths ranging from 1-foot bgs to 16 feet bgs. The delineation soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 1. The delineation pothole soil samples were collected, handled, and analyzed as described above and submitted to Eurofins in Carlsbad, New Mexico. The release extents and delineation soil sample locations are depicted on Figure 3. Photographic documentation was completed during the Site assessment and a photographic log is included in Attachment 2.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH05 indicated that TPH-GRO/TPH-DRO, TPH, and chloride concentrations exceeded the Site Closure Criteria and/or the reclamation standards at depths ranging from 1-foot to 8 feet bgs in the eastern release area and 1-foot to 7 feet bgs in the western release area. The terminal depth sample in each pothole was below 600 mg/kg for chloride and 100 mg/kg for TPH. The

District I
Page 4

analytical results are summarized on Table 1 and laboratory analytical reports are included in Attachment 3.

Based on the laboratory analytical results, the impacted soil was successfully defined. Additionally, the stained area west of the reported release identified during initial site assessment activities was confirmed as a historical nonreportable release, potentially from the same flow line. COP plans to address both releases at the same time.

PROPOSED REMEDIATION WORK PLAN

An estimated 975 cubic yards of impacted soil is present within the subsurface at the Site. WSP and COP propose to excavate the impacted soil in the release areas to depths ranging from 4 feet to 8 feet bgs. Excavation activities will proceed until the final excavation samples confirm compliance with the Site Closure Criteria and with the reclamation standards for samples collected in the top four feet of the subsurface. The impacted soil will be disposed of at a licensed disposal facility.

Following removal of impacted soil, 5-point composite confirmation samples will be collected from the sidewalls and floors of the excavations. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The composite samples will represent a maximum 200 square foot sampling area. The excavation soil samples will be collected and handled following the same procedures as described above and analyzed at Eurofins in Carlsbad, New Mexico. Once COP has confirmed all impacted soil has been successfully removed, the excavation will be backfilled with material purchase locally and recontoured to match pre-existing site conditions. The disturbed pasture areas will be re-seeded with an approved BLM seed mixture.

COP anticipates beginning remediation within 90 days of receipt of the approved remediation work plan. A final report requesting closure will be submitted within 30 days of receipt of final laboratory analytical results. The Form C-141 requesting approval of this work plan is included in Attachment 4.

If you have any questions or comments, please do not hesitate to contact Ms. Aimee Cole at (720) 384-7365.

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads "Kaeli Jennings".

A handwritten signature in black ink that reads "Aimee Cole".



District I
Page 5

Kalei Jennings
Consultant, Environmental Scientist

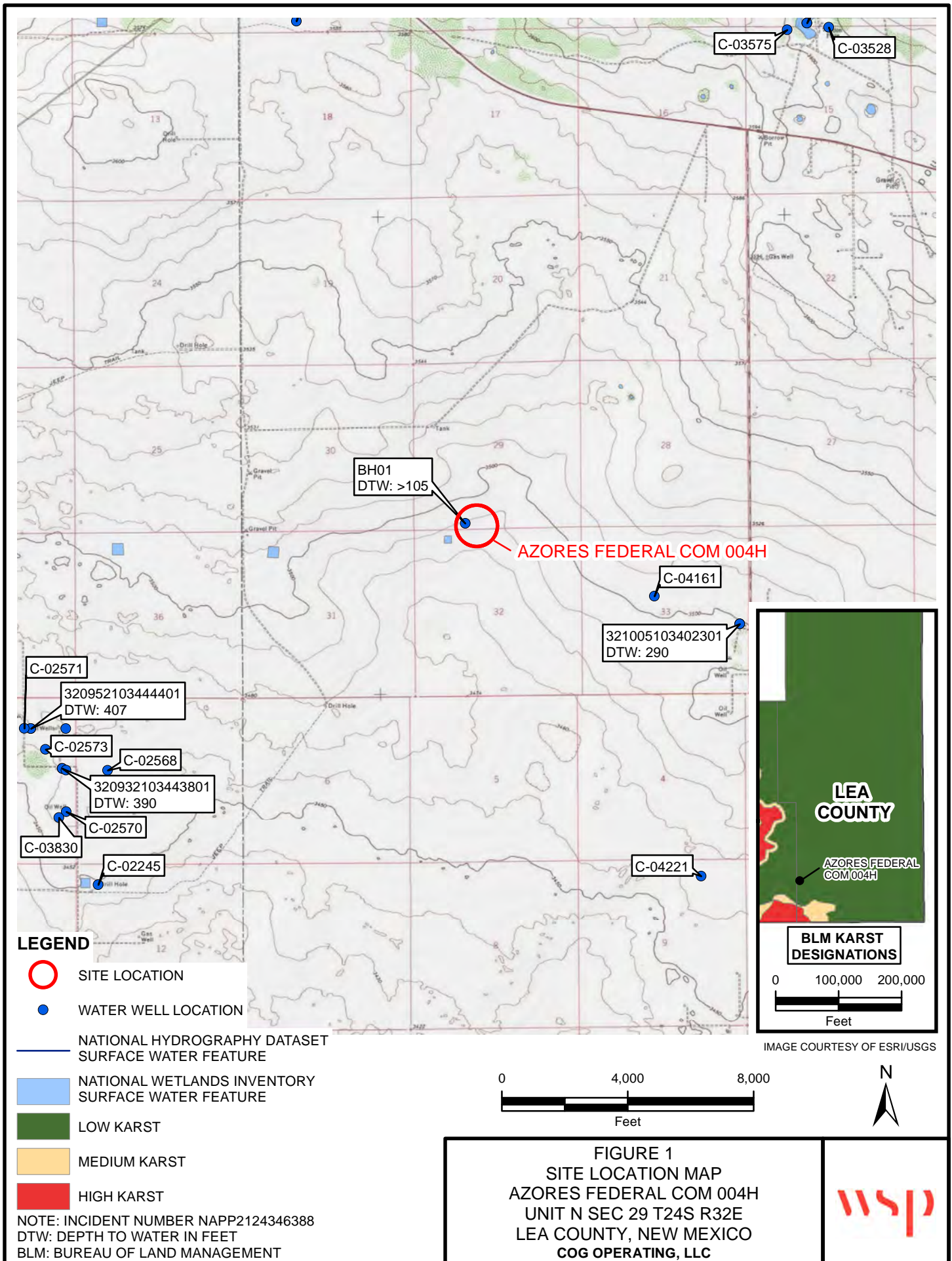
Aimee Cole
Sr. Consultant, Environmental Scientist

cc: Charles Beauvais, COG Operating, LLC
Bureau of Land Management

Attachments:

Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3 Delineation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Lithologic / Soil Sampling Logs
Attachment 2 Photographic Log
Attachment 3 Laboratory Analytical Reports
Attachment 4 Final C-141

FIGURES



**LEGEND**

IMAGE COURTESY OF ESRI



RELEASE LOCATION

PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS
EXCEEDING APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT



HISTORICAL NON-REPORTABLE RELEASE EXTENT

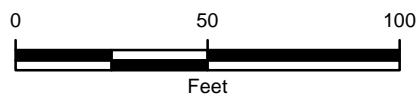
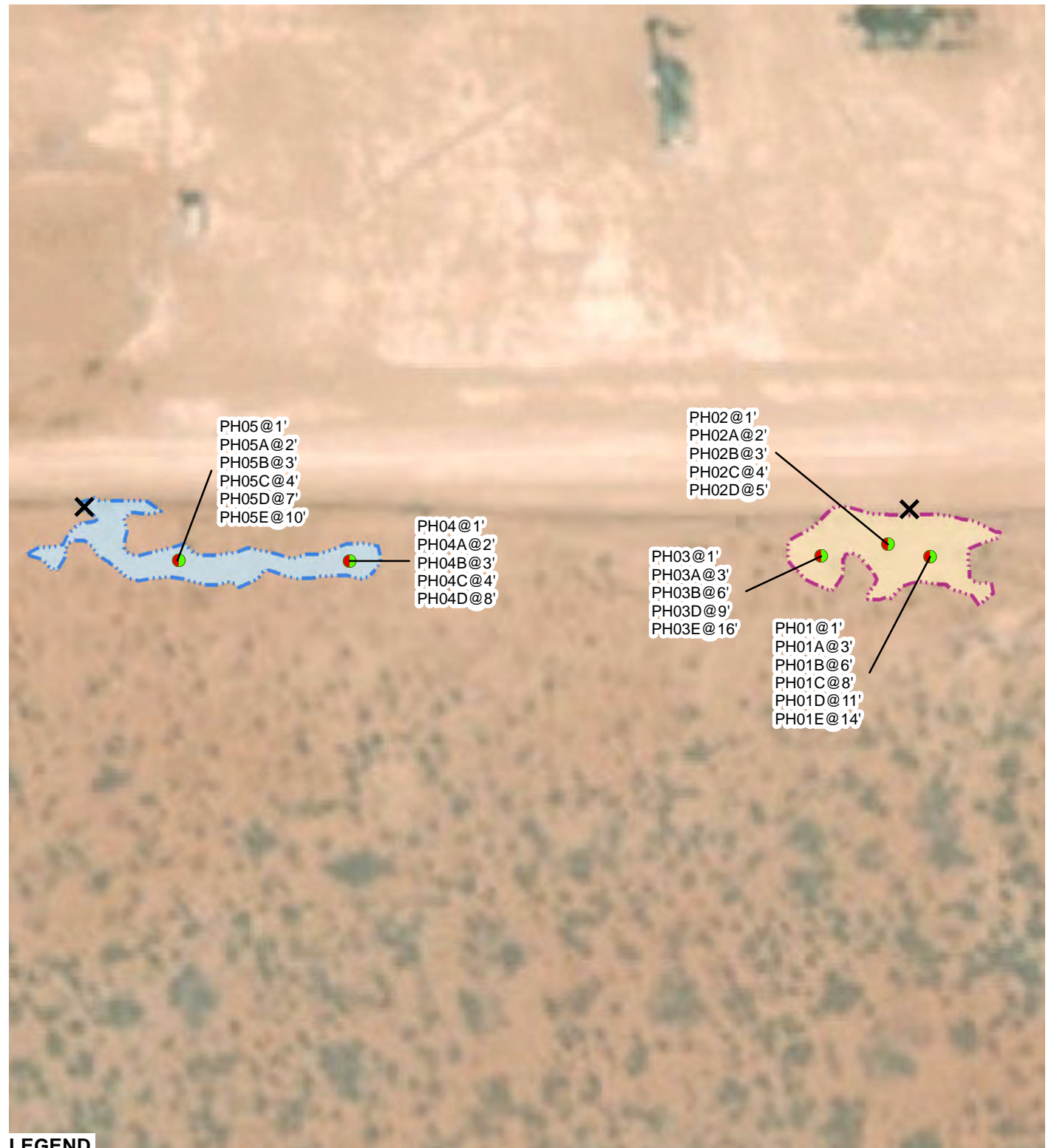
NOTE: INCIDENT NUMBER NAPP2124346388
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
 AZORES FEDERAL COM 004H
 UNIT N SEC 29 T24S R32E
 LEA COUNTY, NEW MEXICO
 COG OPERATING, LLC



**LEGEND**

RELEASE LOCATION

DELINEATION SOIL SAMPLE WITH CONCENTRATIONS
PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT



HISTORICAL NON-REPORTABLE RELEASE EXTENT

NOTE: INCIDENT NUMBER NAPP2124346388
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

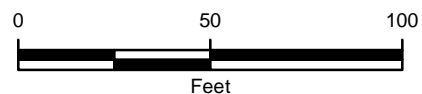


IMAGE COURTESY OF ESRI

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
AZORES FEDERAL COM 004H
UNIT N SEC 29 T24S R32E
LEA COUNTY, NEW MEXICO
COG OPERATING, LLC



TABLES

Table 1

Soil Analytical Results
Azores Federal Com 004H
Incident Number NAPP2124346388
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Soil Samples										
SS01	09/07/2021	0-0.5	0.0108	0.076	17,000	456	<250	17,456	17,500	9,010*
SS02	09/07/2021	0-0.5	<0.00202	0.0536	25,300	348	<249	25,648	25,600	745*
SS03	09/07/2021	0-0.5	0.00661	0.0729	13,900	410	<249	14,310	14,300	643*
Delineation Soil Samples										
PH01	10/08/2021	1	0.251	9.46	4,700	915	<49.9	5,615	5,620	428*
PH01A	10/08/2021	3	0.0303	10.9	4,500	1,070	<49.8	5,570	5,570	655*
PH01B	10/08/2021	6	0.0223	50.9	5,310	1,100	858	6,410	7,270	911
PH01C	10/08/2021	8	0.0217	20.5	2,720	562	<50.0	3,282	3,280	1,870
PH01D	10/08/2021	11	<0.00201	0.0799	256	130	<50.0	386	386	375
PH01E	10/08/2021	14	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	152
PH02	10/08/2021	1	0.0977	14.7	5,050	1,040	941	6,090	7,030	320*
PH02A	10/08/2021	2	0.00800	10.6	4,330	868	753	5,198	5,950	1,140*
PH02B	10/08/2021	3	<0.00200	<0.00399	177	<49.9	85.7	177	263	202*
PH02C	10/08/2021	4	<0.403	<0.806	148	<50.0	50.4	148	198	107
PH02D	10/08/2021	5	<0.00199	<0.00398	61.2	<50.0	<50.0	<50.0	61.2	32.2
PH03	10/08/2021	1	0.0165	14.7	4,880	1,090	763	5,970	6,730	918*
PH03A	10/08/2021	3	0.103	16.7	4,780	1,060	799	5,840	6,640	4,420*
PH03B	10/08/2021	6	<0.00199	0.0823	9,320	3,310	1,250	12,630	13,900	9,070
PH03D	10/08/2021	9	<0.00198	0.0408	315	<49.9	<49.9	315	315	521
PH03E	10/08/2021	16	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	140

Table 1

Soil Analytical Results
Azores Federal Com 004H
Incident Number NAPP2124346388
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
PH04	10/08/2021	1	<0.00199	0.0947	1,850	67.3	279	1,917	2,200	469*
PH04A	10/08/2021	2	<0.00199	0.170	2,440	119	348	2,559	2,910	1,200*
PH04B	10/08/2021	3	<0.00199	1.08	2,530	392	338	2,922	3,260	732*
PH04C	10/08/2021	4	<0.00200	0.107	3,840	177	529	4,017	4,550	69.0
PH04D	10/08/2021	8	<0.00198	<0.00397	65.7	<49.9	<49.9	65.7	65.7	18.0
PH05	10/08/2021	1	0.00313	30.3	4,410	855	<50.0	5,265	5,270	43.3*
PH05A	10/08/2021	2	0.0231	21.5	4,160	740	<50.0	4,900	4,900	110*
PH05B	10/08/2021	3	0.187	43.3	6,380	1,320	1,000	7,700	8,700	321*
PH05C	10/08/2021	4	0.00510	0.598	5,770	369	<49.8	6,139	6,140	187
PH05D	10/08/2021	7	0.00615	0.475	1,030	<50.0	132	1,030	1,160	1,020
PH05E	10/08/2021	10	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	514

Notes:

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

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


* - indicates sample was collected in area to be reclaimed after remediation is complete;

closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg



ATTACHMENT 1: LITHOLOGIC/SAMPLING LOG


 WSP USA 518 West Stevens Street Carlsbad, New Mexico 88530		BH or PH Name: BH01		Date: 2-9-2021				
		Site Name: Azores Fed #4H						
		RP or Incident Number: NAPP2124346388						
		WSP Job Number: 31402909.130						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.18139, -103.6989			Field Screening: N/A		Logged By: <u>EL</u>	Method: <u>Hollow Stem Air Rotary</u>		
					Hole Diameter: <u>6"</u>	Total Depth: <u>165'</u>		
Comments: <u>Depth to water boring, Lithology Remarks Only</u>								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						1	SM	Soft, F grain 15% L
						2		SAND, Fine - medium grain, silty, poorly graded, dry, Reddish Brown, Abundant caliche gravel, Trace clay, Low plasticity / cohesive. No stain, No odor
						3		
						4		
						5		
						6	SAA/ But + trace caliche gravel	
						7	(same as above)	
						8		
						9		
						10		SAA/ But color change to
						11		light brown,
						12		
						13		
						14		
						15		SAA
						16		
						17		
						18		
						19		
						20		SAA
						21		
						22		
						23		
						24		SAA But Abundant Caliche
						25		


 WSP USA 508 West Summit Street Carlsbad, New Mexico 88220		BH or PH Name		Date				
		Site Name						
		RP or Incident Number						
		WSP Job Number						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By	Method			
Lat/Long		Field Screening		Hole Diameter	Total Depth			
Comments								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						26	SM	
						27		
						28		
						29		Low plasticity,
						30		↓ Cohesive
						31	SC	SAA/But, <u>some</u> clay,
						32		Reddish brown color. No silt
						33		present
						34		
						35		- SAA/But trace caliche gravel
						36		present.
						37		
						38		
						39		
						40		- SAA/But Abundant gypsum
						41		crystals present.
						42		
						43		
						44		
						45		- SAA/But only Fine grain sand,
						46		Trace gypsum crystals present.
						47		(Possible mottling)
						48		Sharp transition to clayey
						49		1 Sand: Fine grain, No caliche
						50		- gravel present, grayish color


<div><div>WSP USA 500 West Stevens Street Carlsbad, New Mexico 88509</div></div>		BH or PH Name		Date				
		Site Name:						
		RP or Incident Number:						
		WSP Job Number:						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By:	Method:			
Lat/Long		Field Screening:		Hole Diameter:	Total Depth:			
Comments								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						51	SC	Dry Low plasticity, cohesive d SAND, clayey, Fine grain, poorly graded Reddish brown, gray colored Sand also present (mottling), Trace gypsum crystals
						52		
						53		
						54		
						55		
						56		
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						75		


Released to Imaging: 4/27/2022 11:07:44 AM


 WSP USA 503 West Stevens Street Cambridge, New Mexico 88103		BH or PH Name:		Date:							
		Site Name:									
		RP or Incident Number:									
		WSP Job Number:									
LITHOLOGIC / SOIL SAMPLING LOG							Logged By:		Method:		
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:			
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						101	SL	SAA Bot Abundant gypsum Crystals Total Depth 105', @ 11:30 			
						102					
						103					
						104					
						105					
						106					
						107					
						108					
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						125					

 <div style="text-align: center;"> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>								BH or PH Name: PH01		Date: 10/08/2021	
								Site Name: Azores Federal Com 004H			
								RP or Incident Number NAPP2124346388			
								WSP Job Number: 31402909.130 Task 02			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: FS		Method: Backhoe	
Lat/Long: 32.1811749, -103.6988874				Field Screening: Chloride, PID				Hole Diameter: N/A		Total Depth: 16.5'	
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	509	2,749	Y	PH01	1	1	SP	SAND, reddish brown, poorly graded, fine-very fine grain, dark brown staining, strong odor.			
D	565	2,620	Y			2					
D	761	1839	Y	PH01A	3	3	SP	SAA			
D	1,545	2,467	Y			4					
D	1,344	2,233	Y			5					
D	1,159	1,977	Y	PH01B	6	6	SP	SAA			
D	1,344	1,954	Y			7					
D	2,352	1,744	Y	PH01C	8	8	SP	SAA, less staining.			
D	2,352	1,349	Y			9					
D	1,248	1,876	Y			10		SAA, odor starting to dissipate.			
D	308	663.7	N	PH01D	11	11	SP	SAA, no staining.			
D	1,444	1,864	N			12					
D	156	1,774	N			13		SAA, trace caliche gravel.			
D	<156	100.7	N	PH01E	14	14	CCHE	CALICHE, poorly consolidated.			
D	224	223.2	N			15		SAA, minimal odor.			
D	263	1,488	N			16		SAA, odor stronger.			
D	263	649	N			16.5					
TD @ 16.5 ft bgs											

 <div style="text-align: center;"> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>								BH or PH Name: PH02		Date: 10/08/2021	
								Site Name: Azores Federal Com 004H			
								RP or Incident Number NAPP2124346388			
								WSP Job Number: 31402909.130 Task 02			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: FS		Method: Backhoe	
Lat/Long: 32.1811872, -103.6989353				Field Screening: Chloride, PID				Hole Diameter: N/A		Total Depth: 7'	
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	403	1,402	Y	PH02	1	1	SP	SAND, reddish brown, poorly graded, fine-very fine grain, dark brown staining, strong odor.			
D	1,248	1,735	Y	PH02A	2	2	SP	SAA			
D	263	246.7	Y	PH02B	3	3	SP	SAA			
D	190	286	Y	PH02C	4	4	SP	SAA			
D	<156	126.3	Y	PH02D	5	5	SP	SAA, no odor.			
D	263	780.3	Y			6		SAA, very strong odor.			
D	308	27.6	Y			7	CCHE	CALICHE, minimal odor.			
TD @ 7 ft bgs											

 <div>WSP USA</div> <div>508 West Stevens Street Carlsbad, New Mexico 88220</div>					BH or PH Name: PH03		Date: 10/08/2021			
					Site Name: Azores Federal Com 004H					
					RP or Incident Number NAPP2124346388					
					WSP Job Number: 31402909.130 Task 02					
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: FS		Method: Backhoe	
Lat/Long: 32.1811760, -103.6990116					Field Screening: Chloride, PID		Hole Diameter: N/A		Total Depth: 16.5'	
Comments:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks		
						0				
D	1,069	1,784	Y	PH03	1	1	SP	SAND, reddish brown, poorly graded, fine-very fine grain, dark brown staining, strong odor.		
D	1,915	1,965	Y			2				
D	3119	1699	Y	PH03A	3	3	SP	SAA, faint odor.		
D	6,675	1,625	Y			4		SAA, very strong odor.		
D	9,066	1,627	Y			5		SAA, start caliche transition.		
D	9,066	1,439	Y	PH03B	6	6	CCHE	CALICHE.		
D	12,275	1,717	Y			7				
D	7,789	1,648	Y			8				
D	453	678.3	Y	PH03D	9	9	CCHE	SAA, odor dissipating.		
D	1,159	1,125	Y			10				
D	224	63.5	N			11		SAA, no odor.		
D	<179	85.7	N			12		SAA, faint odor.		
D	<179	87	N			13				
D	834	383.2	N			14		SAA, strong odor.		
D	224	864.4	N			15				
D	<179	13.9	N	PH03E	16	16	CCHE	SAA		
TD @ 16 ft bgs										

 <div style="text-align: center;"> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>								BH or PH Name: PH04		Date: 10/08/2021	
								Site Name: Azores Federal Com 004H			
								RP or Incident Number NAPP2124346388			
								WSP Job Number: 31402909.130 Task 02			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: FS		Method: Backhoe	
Lat/Long: 32.1811741, -103.6995486				Field Screening: Chloride, PID				Hole Diameter: N/A		Total Depth: 12'	
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	672	429.8	N	PH04	1	1	SP	SAND, reddish brown, poorly graded, fine-very fine grain, strong odor.			
D	1,607	607.3	N	PH04A	2	2	SP	SAA			
D	946	790.2	N	PH04B	3	3	SP	SAA			
D	<151	502.7	N	PH04C	4	4	SP	SAA			
D	<151	422.6	N			5					
D	<151	1,213	N			6	CCHE	CALICHE, very strong odor.			
D	<151	1,271	N			7					
D	<151	96.2	N	PH04D	8	8	CCHE				
D	190	337.8	N			9					
D	<151	267	N			10					
D	<151	60.8	N			11					
D	224	59.3	N			12	CCHE	moderate-well consolidated.			
TD @ 12 ft bgs											

 <div style="text-align: center;"> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>								BH or PH Name: PH05		Date: 10/08/2021	
								Site Name: Azores Federal Com 004H			
								RP or Incident Number NAPP2124346388			
								WSP Job Number: 31402909.130 Task 02			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: FS		Method: Backhoe	
Lat/Long: 32.1811724, -103.6996576				Field Screening: Chloride, PID				Hole Diameter: N/A		Total Depth: 10'	
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	<151	2,133	Y	PH05	1	1	SP	SAND, reddish brown, poorly graded, fine-very fine grain, very dark staining, strong odor.			
D	190	1,808	Y	PH05A	2	2	SP	SAA			
D	498	1,835	Y	PH05B	3	3	SP	SAA			
D	263	868.3	Y	PH05C	4	4	SP	SAA			
D	<151	973.2	Y			5	SP				
D	1,607	1,364	N			6	SP	Transition to caliche.			
D	352	1,191	N	PH05D	7	7	SP	Transition to caliche.			
D	5,700	1,071	N			8	CCHE	CALICHE.			
D	1,024	129.2	N			9	CCHE				
D	448	37.9	N	PH05E	10	10	CCHE	SAA			
TD @ 10 ft bgs											

ATTACHMENT 2: PHOTOGRAPHIC LOG

**PHOTOGRAPHIC LOG****COG Operating, LLC****Azores Federal Com 004H
Lea County, New Mexico****NAPP2124346388**



Photo No.	Date	
1	September 7, 2021	
Photo of east release extent taken during initial site assessment assigned incident NAPP2124346388.		 A wide-angle photograph showing a desert landscape with reddish-brown soil and sparse green shrubs. Several large black pipes run diagonally across the foreground. In the background, there are industrial structures, including a tall water tower and various tanks, under a clear blue sky.

Photo No.	Date	
2	September 7, 2021	
Photo of east release extent taken during initial site assessment assigned incident NAPP2124346388.		 A closer photograph of the black pipes in the desert. The pipes are laid out on the sandy ground, with some vegetation visible. The background shows the same industrial site as in Photo 1, with a clear blue sky.



PHOTOGRAPHIC LOG		
COG Operating, LLC	Azores Federal Com 004H Lea County, New Mexico	NAPP2124346388




Photo No.	Date	
3	September 7, 2021	
Photo of west historical nonreportable release extent identified during initial site assessment.		

Photo No.	Date	
4	September 7, 2021	
Photo of west historical nonreportable release extent identified during initial site assessment.		



PHOTOGRAPHIC LOG		
COG Operating, LLC	Azores Federal Com 004H Lea County, New Mexico	NAPP2124346388

Photo No.	Date	
5	October 8, 2021	
Photo of delineation activities.		

Photo No.	Date	
6	October 8, 2021	
Photo of pothole taken during delineation activities.		

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1236-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Federal Com 004H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
9/15/2021 1:42:52 PM

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

LINKS

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www.eurofinsus.com/Env

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

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

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Laboratory Job ID: 890-1236-1
SDG: 31402909.130

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

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Job ID: 890-1236-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1236-1

Receipt

The samples were received on 9/9/2021 8:58 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 1.6°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7758 and analytical batch 880-7857 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-1236-1) and SS02 (890-1236-2). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-7767 and analytical batch 880-7831 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Client Sample ID: SS01

Lab Sample ID: 890-1236-1

Date Collected: 09/07/21 10:55

Matrix: Solid

Date Received: 09/09/21 08:58

Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0108		0.00202	mg/Kg		09/14/21 09:00	09/14/21 17:49	1
Toluene	0.0211		0.00202	mg/Kg		09/14/21 09:00	09/14/21 17:49	1
Ethylbenzene	0.0124		0.00202	mg/Kg		09/14/21 09:00	09/14/21 17:49	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		09/14/21 09:00	09/14/21 17:49	1
o-Xylene	0.0317		0.00202	mg/Kg		09/14/21 09:00	09/14/21 17:49	1
Xylenes, Total	0.0317		0.00404	mg/Kg		09/14/21 09:00	09/14/21 17:49	1
Total BTEX	0.0760		0.00404	mg/Kg		09/14/21 09:00	09/14/21 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	09/14/21 09:00	09/14/21 17:49	1
1,4-Difluorobenzene (Surr)	75		70 - 130	09/14/21 09:00	09/14/21 17:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	456		250	mg/Kg		09/10/21 09:12	09/11/21 09:33	5
Diesel Range Organics (Over C10-C28)	17000		250	mg/Kg		09/10/21 09:12	09/11/21 09:33	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		09/10/21 09:12	09/11/21 09:33	5
Total TPH	17500		250	mg/Kg		09/10/21 09:12	09/11/21 09:33	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	09/10/21 09:12	09/11/21 09:33	5
o-Terphenyl	98		70 - 130	09/10/21 09:12	09/11/21 09:33	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9010	F1	49.7	mg/Kg			09/15/21 02:24	10

Client Sample ID: SS02

Lab Sample ID: 890-1236-2

Date Collected: 09/07/21 11:00

Matrix: Solid

Date Received: 09/09/21 08:58

Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		09/14/21 09:00	09/14/21 18:09	1
Toluene	<0.00202	U	0.00202	mg/Kg		09/14/21 09:00	09/14/21 18:09	1
Ethylbenzene	0.0116		0.00202	mg/Kg		09/14/21 09:00	09/14/21 18:09	1
m-Xylene & p-Xylene	0.0101		0.00403	mg/Kg		09/14/21 09:00	09/14/21 18:09	1
o-Xylene	0.0319		0.00202	mg/Kg		09/14/21 09:00	09/14/21 18:09	1
Xylenes, Total	0.0420		0.00403	mg/Kg		09/14/21 09:00	09/14/21 18:09	1
Total BTEX	0.0536		0.00403	mg/Kg		09/14/21 09:00	09/14/21 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	182	S1+	70 - 130	09/14/21 09:00	09/14/21 18:09	1
1,4-Difluorobenzene (Surr)	91		70 - 130	09/14/21 09:00	09/14/21 18:09	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Client Sample ID: SS02

Lab Sample ID: 890-1236-2

Date Collected: 09/07/21 11:00

Matrix: Solid

Date Received: 09/09/21 08:58

Sample Depth: 0 - 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	348		249	mg/Kg		09/10/21 09:12	09/11/21 09:55	5
Diesel Range Organics (Over C10-C28)	25300		249	mg/Kg		09/10/21 09:12	09/11/21 09:55	5
Oil Range Organics (Over C28-C36)	<249	U	249	mg/Kg		09/10/21 09:12	09/11/21 09:55	5
Total TPH	25600		249	mg/Kg		09/10/21 09:12	09/11/21 09:55	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	09/10/21 09:12	09/11/21 09:55	5
o-Terphenyl	102		70 - 130	09/10/21 09:12	09/11/21 09:55	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	745		5.04	mg/Kg			09/15/21 02:41	1

Client Sample ID: SS03

Lab Sample ID: 890-1236-3

Date Collected: 09/07/21 11:04

Matrix: Solid

Date Received: 09/09/21 08:58

Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00661		0.00201	mg/Kg		09/14/21 09:00	09/14/21 18:29	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/14/21 09:00	09/14/21 18:29	1
Ethylbenzene	0.0393		0.00201	mg/Kg		09/14/21 09:00	09/14/21 18:29	1
m-Xylene & p-Xylene	0.0270		0.00402	mg/Kg		09/14/21 09:00	09/14/21 18:29	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/14/21 09:00	09/14/21 18:29	1
Xylenes, Total	0.0270		0.00402	mg/Kg		09/14/21 09:00	09/14/21 18:29	1
Total BTEX	0.0729		0.00402	mg/Kg		09/14/21 09:00	09/14/21 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	09/14/21 09:00	09/14/21 18:29	1
1,4-Difluorobenzene (Surr)	95		70 - 130	09/14/21 09:00	09/14/21 18:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	410		249	mg/Kg		09/10/21 09:12	09/11/21 10:19	5
Diesel Range Organics (Over C10-C28)	13900		249	mg/Kg		09/10/21 09:12	09/11/21 10:19	5
Oil Range Organics (Over C28-C36)	<249	U	249	mg/Kg		09/10/21 09:12	09/11/21 10:19	5
Total TPH	14300		249	mg/Kg		09/10/21 09:12	09/11/21 10:19	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	09/10/21 09:12	09/11/21 10:19	5
o-Terphenyl	87		70 - 130	09/10/21 09:12	09/11/21 10:19	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	643		4.98	mg/Kg			09/15/21 02:46	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-5958-A-41-D MS	Matrix Spike	116	83
880-5958-A-41-E MSD	Matrix Spike Duplicate	116	85
890-1236-1	SS01	136 S1+	75
890-1236-2	SS02	182 S1+	91
890-1236-3	SS03	130	95
LCS 880-7758/1-A	Lab Control Sample	113	73
LCSD 880-7758/2-A	Lab Control Sample Dup	110	84
MB 880-7758/5-A	Method Blank	113	77
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1236-1	SS01	111	98
890-1236-2	SS02	128	102
890-1236-3	SS03	117	87
890-1237-A-1-D MS	Matrix Spike	101	100
890-1237-A-1-E MSD	Matrix Spike Duplicate	101	102
LCS 880-7730/2-A	Lab Control Sample	106	108
LCSD 880-7730/3-A	Lab Control Sample Dup	108	110
MB 880-7730/1-A	Method Blank	101	114
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7758/5-A

Matrix: Solid

Analysis Batch: 7857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7758

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/14/21 09:00	09/14/21 12:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/14/21 09:00	09/14/21 12:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/14/21 09:00	09/14/21 12:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/14/21 09:00	09/14/21 12:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/14/21 09:00	09/14/21 12:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/14/21 09:00	09/14/21 12:20	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		09/14/21 09:00	09/14/21 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	09/14/21 09:00	09/14/21 12:20	1
1,4-Difluorobenzene (Surr)	77		70 - 130	09/14/21 09:00	09/14/21 12:20	1

Lab Sample ID: LCS 880-7758/1-A

Matrix: Solid

Analysis Batch: 7857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7758

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09498		mg/Kg		95	70 - 130
Toluene	0.100	0.09272		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09436		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1926		mg/Kg		96	70 - 130
o-Xylene	0.100	0.09544		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	73		70 - 130

Lab Sample ID: LCSD 880-7758/2-A

Matrix: Solid

Analysis Batch: 7857

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7758

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1030		mg/Kg		103	70 - 130	8	35
Toluene	0.100	0.09796		mg/Kg		98	70 - 130	6	35
Ethylbenzene	0.100	0.09754		mg/Kg		98	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2080		mg/Kg		104	70 - 130	8	35
o-Xylene	0.100	0.1037		mg/Kg		104	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: 880-5958-A-41-D MS

Matrix: Solid

Analysis Batch: 7857

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0998	0.08777		mg/Kg		88	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

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

Lab Sample ID: 880-5958-A-41-D MS

Matrix: Solid

Analysis Batch: 7857

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7758

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00199	U	0.0998	0.08007		mg/Kg		80	70 - 130
Ethylbenzene	<0.00199	U F1	0.0998	0.07502		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1559		mg/Kg		78	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.08068		mg/Kg		81	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	116		70 - 130						
1,4-Difluorobenzene (Surr)	83		70 - 130						

Lab Sample ID: 880-5958-A-41-E MSD

Matrix: Solid

Analysis Batch: 7857

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7758

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07857		mg/Kg		78	70 - 130	11	35
Toluene	<0.00199	U	0.100	0.07046		mg/Kg		70	70 - 130	13	35
Ethylbenzene	<0.00199	U F1	0.100	0.06374	F1	mg/Kg		64	70 - 130	16	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1306	F1	mg/Kg		65	70 - 130	18	35
o-Xylene	<0.00199	U F1	0.100	0.06920	F1	mg/Kg		69	70 - 130	15	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	116		70 - 130								
1,4-Difluorobenzene (Surr)	85		70 - 130								

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

Lab Sample ID: MB 880-7730/1-A

Matrix: Solid

Analysis Batch: 7723

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7730

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/10/21 09:12	09/10/21 11:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/10/21 09:12	09/10/21 11:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/10/21 09:12	09/10/21 11:30	1
Total TPH	<50.0	U	50.0	mg/Kg		09/10/21 09:12	09/10/21 11:30	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			09/10/21 09:12	09/10/21 11:30	1
o-Terphenyl	114		70 - 130			09/10/21 09:12	09/10/21 11:30	1

Lab Sample ID: LCS 880-7730/2-A

Matrix: Solid

Analysis Batch: 7723

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7730

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	978.4		mg/Kg		98	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

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

Lab Sample ID: LCS 880-7730/2-A

Matrix: Solid

Analysis Batch: 7723

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7730

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	1065		mg/Kg		107	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	108		70 - 130								

Lab Sample ID: LCSD 880-7730/3-A

Matrix: Solid

Analysis Batch: 7723

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7730

Top Data: 1725											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	980.2		mg/Kg		98	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1083		mg/Kg		108	70 - 130	2	20
Surrogate	%Recovery	LCSD Qualifier	LCSD Limits								
1-Chlorooctane	108		70 - 130								
o-Terphenyl	110		70 - 130								

Lab Sample ID: 890-1237-A-1-D MS

Matrix: Solid

Analysis Batch: 7723

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7730

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	837.4		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	997	835.4		mg/Kg		84	70 - 130		

Lab Sample ID: 890-1237-A-1-E MSD

Matrix: Solid

Analysis Batch: 7723

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7730

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	787.6		mg/Kg		79	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	848.2		mg/Kg		85	70 - 130	2	20
											</

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7767/1-A

Matrix: Solid

Analysis Batch: 7831

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			09/15/21 02:07	1

Lab Sample ID: LCS 880-7767/2-A

Matrix: Solid

Analysis Batch: 7831

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	260.5		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-7767/3-A

Matrix: Solid

Analysis Batch: 7831

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	261.1		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-1236-1 MS

Matrix: Solid

Analysis Batch: 7831

Client Sample ID: SS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9010	F1	2490	13260	F1	mg/Kg		171	90 - 110

Lab Sample ID: 890-1236-1 MSD

Matrix: Solid

Analysis Batch: 7831

Client Sample ID: SS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9010	F1	2490	13280	F1	mg/Kg		172	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

GC VOA

Prep Batch: 7758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1236-1	SS01	Total/NA	Solid	5035	
890-1236-2	SS02	Total/NA	Solid	5035	
890-1236-3	SS03	Total/NA	Solid	5035	
MB 880-7758/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7758/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7758/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5958-A-41-D MS	Matrix Spike	Total/NA	Solid	5035	
880-5958-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 7857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1236-1	SS01	Total/NA	Solid	8021B	7758
890-1236-2	SS02	Total/NA	Solid	8021B	7758
890-1236-3	SS03	Total/NA	Solid	8021B	7758
MB 880-7758/5-A	Method Blank	Total/NA	Solid	8021B	7758
LCS 880-7758/1-A	Lab Control Sample	Total/NA	Solid	8021B	7758
LCSD 880-7758/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7758
880-5958-A-41-D MS	Matrix Spike	Total/NA	Solid	8021B	7758
880-5958-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7758

GC Semi VOA

Analysis Batch: 7723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1236-1	SS01	Total/NA	Solid	8015B NM	7730
890-1236-2	SS02	Total/NA	Solid	8015B NM	7730
890-1236-3	SS03	Total/NA	Solid	8015B NM	7730
MB 880-7730/1-A	Method Blank	Total/NA	Solid	8015B NM	7730
LCS 880-7730/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7730
LCSD 880-7730/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7730
890-1237-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	7730
890-1237-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7730

Prep Batch: 7730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1236-1	SS01	Total/NA	Solid	8015NM Prep	
890-1236-2	SS02	Total/NA	Solid	8015NM Prep	
890-1236-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-7730/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7730/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7730/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1237-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1237-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 7767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1236-1	SS01	Soluble	Solid	DI Leach	
890-1236-2	SS02	Soluble	Solid	DI Leach	
890-1236-3	SS03	Soluble	Solid	DI Leach	
MB 880-7767/1-A	Method Blank	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

HPLC/IC (Continued)

Leach Batch: 7767 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-7767/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7767/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1236-1 MS	SS01	Soluble	Solid	DI Leach	
890-1236-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 7831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1236-1	SS01	Soluble	Solid	300.0	7767
890-1236-2	SS02	Soluble	Solid	300.0	7767
890-1236-3	SS03	Soluble	Solid	300.0	7767
MB 880-7767/1-A	Method Blank	Soluble	Solid	300.0	7767
LCS 880-7767/2-A	Lab Control Sample	Soluble	Solid	300.0	7767
LCSD 880-7767/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7767
890-1236-1 MS	SS01	Soluble	Solid	300.0	7767
890-1236-1 MSD	SS01	Soluble	Solid	300.0	7767

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Client Sample ID: SS01

Lab Sample ID: 890-1236-1

Date Collected: 09/07/21 10:55

Matrix: Solid

Date Received: 09/09/21 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	7758	09/14/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7857	09/14/21 17:49	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7730	09/10/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		5			7723	09/11/21 09:33	AM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	7767	09/10/21 14:24	CH	XEN MID
Soluble	Analysis	300.0		10			7831	09/15/21 02:24	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1236-2

Date Collected: 09/07/21 11:00

Matrix: Solid

Date Received: 09/09/21 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	7758	09/14/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7857	09/14/21 18:09	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	7730	09/10/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		5			7723	09/11/21 09:55	AM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	7767	09/10/21 14:24	CH	XEN MID
Soluble	Analysis	300.0		1			7831	09/15/21 02:41	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1236-3

Date Collected: 09/07/21 11:04

Matrix: Solid

Date Received: 09/09/21 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	7758	09/14/21 09:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7857	09/14/21 18:29	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	7730	09/10/21 09:12	DM	XEN MID
Total/NA	Analysis	8015B NM		5			7723	09/11/21 10:19	AM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	7767	09/10/21 14:24	CH	XEN MID
Soluble	Analysis	300.0		1			7831	09/15/21 02:46	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Federal Com 004H

Job ID: 890-1236-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1236-1	SS01	Solid	09/07/21 10:55	09/09/21 08:58	0 - 0.5
890-1236-2	SS02	Solid	09/07/21 11:00	09/09/21 08:58	0 - 0.5
890-1236-3	SS03	Solid	09/07/21 11:04	09/09/21 08:58	0 - 0.5



Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	→
Company Name:	WSP USA	Company Name:	→
Address:	3300 North A Street	Address:	→
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 1683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments Program: USTPST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: _____ Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
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Project Name:	Azores Federal Com 004	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code		ANALYSIS REQUEST		Preservative Codes	
Project Number:	31402909.130	Due Date:						None: NO	DI Water: H ₂ O
Project Location:	Lea County	TAT starts the day received by the lab, if received by 4:30pm						Cool: Cool	MeOH: Me
Sampler's Name:	Fatima Smith	Thermometer ID:						HCL: HC	HNO ₃ : HN
PO #:		Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Thermometer ID:						H ₃ PO ₄ : HP	
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:						NaHSO ₄ : NABIS	
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:						Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temperature:						Zn Acetate+NaOH: Zn	
Total Containers:								NaOH+Ascorbic Acid: S-APC	



890-1236 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab Comp	# of Cont	Parameters	Sample Comments
5501	S	9/7/21	1055	0-0.5'		1	TPH (EPA 8015)	
5502	S	9/7/21	1100	0-0.5'		1	BTEX (EPA 0-8021)	
5503	S	9/7/21	1104	0-0.5'		1	Chloride (EPA 300.0)	
<i>(Signature)</i>								

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010	8RCRA	SB AS BA BE CD CR CO CU PB MN MO NI SE AG TI U	Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>(Signature)</i>	<i>(Signature)</i>	9.9.21 0858			

Eurofins Xenco Carlsbad

1089 N Canal St
Carlsbad NM 86220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1236-1

SDG Number: 31402909.130

Login Number: 1236

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1236-1

SDG Number: 31402909.130

Login Number: 1236

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland

List Creation: 09/10/21 11:39 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1/ 2.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1423-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/29/2021 7:32:30 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1423-1
SDG: 31402909.130

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	19

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Job ID: 890-1423-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1423-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

Receipt Exceptions

Analysis for TPH 8015, BTEX 8021, CHLORIDE for the following samples were put on hold by the client on 10/14/2021: PH05D (890-1423-1) and PH05E (890-1423-2). This analysis was originally requested on the chain-of-custody (COC).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-1456-A-1-C). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-10061 and analytical batch 880-10051 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Client Sample ID: PH05D

Lab Sample ID: 890-1423-1

Date Collected: 10/08/21 15:37

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00615		0.00202	mg/Kg		10/21/21 10:15	10/21/21 20:34	1
Toluene	0.0219		0.00202	mg/Kg		10/21/21 10:15	10/21/21 20:34	1
Ethylbenzene	0.0627		0.00202	mg/Kg		10/21/21 10:15	10/21/21 20:34	1
m-Xylene & p-Xylene	0.259		0.00404	mg/Kg		10/21/21 10:15	10/21/21 20:34	1
o-Xylene	0.125		0.00202	mg/Kg		10/21/21 10:15	10/21/21 20:34	1
Xylenes, Total	0.384		0.00404	mg/Kg		10/21/21 10:15	10/21/21 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	242	S1+	70 - 130	10/21/21 10:15	10/21/21 20:34	1
1,4-Difluorobenzene (Surr)	119		70 - 130	10/21/21 10:15	10/21/21 20:34	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.475		0.00404	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1160		50.0	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 17:14	1
Diesel Range Organics (Over C10-C28)	1030		50.0	mg/Kg		10/21/21 09:42	10/21/21 17:14	1
Oil Range Organics (Over C28-C36)	132		50.0	mg/Kg		10/21/21 09:42	10/21/21 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	10/21/21 09:42	10/21/21 17:14	1
o-Terphenyl	108		70 - 130	10/21/21 09:42	10/21/21 17:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1020		5.05	mg/Kg			10/28/21 10:21	1

Client Sample ID: PH05E

Lab Sample ID: 890-1423-2

Date Collected: 10/08/21 15:53

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 20:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 20:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 20:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/21/21 10:15	10/21/21 20:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 20:54	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/21/21 10:15	10/21/21 20:54	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Client Sample ID: PH05E

Lab Sample ID: 890-1423-2

Date Collected: 10/08/21 15:53

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	10/21/21 10:15	10/21/21 20:54	1
1,4-Difluorobenzene (Surr)	101		70 - 130	10/21/21 10:15	10/21/21 20:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 17:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 17:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 17:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/21/21 09:42	10/21/21 17:34	1
o-Terphenyl	108		70 - 130			10/21/21 09:42	10/21/21 17:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	514		5.00	mg/Kg			10/28/21 10:38	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1423-1	PH05D	242 S1+	119
890-1423-2	PH05E	117	101
890-1456-A-1-B MSD	Matrix Spike Duplicate	121	85
890-1456-A-1-D MS	Matrix Spike	121	112
LCS 880-10041/1-A	Lab Control Sample	109	102
LCSD 880-10041/2-A	Lab Control Sample Dup	110	93
MB 880-10041/5-A	Method Blank	106	99
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-7396-A-1-B MS	Matrix Spike	111	106
880-7396-A-1-C MSD	Matrix Spike Duplicate	117	115
890-1423-1	PH05D	105	108
890-1423-2	PH05E	101	108
LCS 880-10061/2-A	Lab Control Sample	104	103
LCSD 880-10061/3-A	Lab Control Sample Dup	101	102
MB 880-10061/1-A	Method Blank	106	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10041/5-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/21/21 10:15	10/21/21 15:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/21/21 10:15	10/21/21 15:47	1

Lab Sample ID: LCS 880-10041/1-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08697		mg/Kg		87	70 - 130
Toluene	0.100	0.08587		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08675		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1814		mg/Kg		91	70 - 130
o-Xylene	0.100	0.08832		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-10041/2-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08674		mg/Kg		87	70 - 130	0	35
Toluene	0.100	0.08951		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.08985		mg/Kg		90	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1897		mg/Kg		95	70 - 130	5	35
o-Xylene	0.100	0.09454		mg/Kg		95	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.05173		mg/Kg					
Toluene	<0.00202	U	0.100	0.07158		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

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

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00202	U	0.100	0.07812		mg/Kg					
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1557		mg/Kg					
o-Xylene	<0.00202	U	0.100	0.07460		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-1456-A-1-D MS

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-10061/1-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

Lab Sample ID: LCS 880-10061/2-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	974.4		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.6		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	103		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-10061/3-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	851.4		mg/Kg		85	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-7396-A-1-B MS

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 880-7396-A-1-C MSD

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	69.3		997	1071		mg/Kg		101	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	115		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10654/1-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/28/21 10:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-10654/2-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-10654/3-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.8		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-1423-1 MS

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: PH05D

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1020		253	1281	4	mg/Kg		103	90 - 110		

Lab Sample ID: 890-1423-1 MSD

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: PH05D

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1020		253	1272	4	mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

GC VOA

Prep Batch: 10041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Total/NA	Solid	5035	
890-1423-2	PH05E	Total/NA	Solid	5035	
MB 880-10041/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-10041/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-10041/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1456-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Total/NA	Solid	8021B	10041
890-1423-2	PH05E	Total/NA	Solid	8021B	10041
MB 880-10041/5-A	Method Blank	Total/NA	Solid	8021B	10041
LCS 880-10041/1-A	Lab Control Sample	Total/NA	Solid	8021B	10041
LCSD 880-10041/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	10041
890-1456-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	10041
890-1456-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	

Analysis Batch: 10878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Total/NA	Solid	Total BTEX	
890-1423-2	PH05E	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 10051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Total/NA	Solid	8015B NM	10061
890-1423-2	PH05E	Total/NA	Solid	8015B NM	10061
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015B NM	10061
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10061
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10061
880-7396-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	10061
880-7396-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10061

Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Total/NA	Solid	8015NM Prep	
890-1423-2	PH05E	Total/NA	Solid	8015NM Prep	
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7396-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7396-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Total/NA	Solid	8015 NM	
890-1423-2	PH05E	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

HPLC/IC

Leach Batch: 10654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Soluble	Solid	DI Leach	
890-1423-2	PH05E	Soluble	Solid	DI Leach	
MB 880-10654/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10654/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10654/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1423-1 MS	PH05D	Soluble	Solid	DI Leach	
890-1423-1 MSD	PH05D	Soluble	Solid	DI Leach	

Analysis Batch: 10793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1423-1	PH05D	Soluble	Solid	300.0	10654
890-1423-2	PH05E	Soluble	Solid	300.0	10654
MB 880-10654/1-A	Method Blank	Soluble	Solid	300.0	10654
LCS 880-10654/2-A	Lab Control Sample	Soluble	Solid	300.0	10654
LCSD 880-10654/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10654
890-1423-1 MS	PH05D	Soluble	Solid	300.0	10654
890-1423-1 MSD	PH05D	Soluble	Solid	300.0	10654

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Client Sample ID: PH05D

Lab Sample ID: 890-1423-1

Date Collected: 10/08/21 15:37

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 20:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 17:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 10:21	CH	XEN MID

Client Sample ID: PH05E

Lab Sample ID: 890-1423-2

Date Collected: 10/08/21 15:53

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 20:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 17:34	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 10:38	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1423-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1423-1	PH05D	Solid	10/08/21 15:37	10/14/21 12:12	7
890-1423-2	PH05E	Solid	10/08/21 15:53	10/14/21 12:12	10

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



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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill To: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com

Program: <input type="checkbox"/> UST/ <input type="checkbox"/> PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RR <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level: <input type="checkbox"/> Level <input type="checkbox"/> PST/UST <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Azores Fed Com 4H	Turn Around	
Project Number:	31402909.130	Routine:	<input checked="" type="checkbox"/>
Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temperature (°C):	24/2.2	Thermometer ID:	11111111
Received Inact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Sample Comments
PH05D	S	10/8/2021	1537	7'	1				HOLD
PH05E	S	10/8/2021	1553	10'	1				HOLD

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	10/14/21 1212			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1423-1

SDG Number: 31402909.130

Login Number: 1423

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1423-1

SDG Number: 31402909.130

Login Number: 1423

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/21/21 09:51 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1424-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

Revision: 1

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
11/11/2021 10:13:03 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1424-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	6
QC Sample Results	7
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Job ID: 890-1424-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-1424-1

REVISION

The report being provided is a revision of the original report sent on 10/29/2021. The report (revision 1) is being revised due to Per client request, remove sample at 12'.

Report revision history

Receipt

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

Receipt Exceptions

Analysis for TPH 8015, BTEX 8021, CHLORIDE for the following samples were put on hold by the client on 10/14/2021: PH04D (890-1424-1) and PH04E (890-1424-2). This analysis was originally requested on the chain-of-custody (COC).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Client Sample ID: PH04D

Lab Sample ID: 890-1424-1

Date Collected: 10/08/21 14:21

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:15	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:15	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		10/21/21 10:15	10/21/21 21:15	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:15	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		10/21/21 10:15	10/21/21 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	10/21/21 10:15	10/21/21 21:15	1
1,4-Difluorobenzene (Surr)	70		70 - 130	10/21/21 10:15	10/21/21 21:15	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.7		49.9	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 17:54	1
Diesel Range Organics (Over C10-C28)	65.7		49.9	mg/Kg		10/21/21 09:42	10/21/21 17:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	10/21/21 09:42	10/21/21 17:54	1
o-Terphenyl	111		70 - 130	10/21/21 09:42	10/21/21 17:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.0		4.95	mg/Kg			10/28/21 10:44	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)**Matrix: Solid****Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1424-1	PH04D	122	70

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)**Matrix: Solid****Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1424-1	PH04D	104	111

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10041/5-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/21/21 10:15	10/21/21 15:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/21/21 10:15	10/21/21 15:47	1

Lab Sample ID: LCS 880-10041/1-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08697		mg/Kg		87	70 - 130
Toluene	0.100	0.08587		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08675		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1814		mg/Kg		91	70 - 130
o-Xylene	0.100	0.08832		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-10041/2-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08674		mg/Kg		87	70 - 130	0	35
Toluene	0.100	0.08951		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.08985		mg/Kg		90	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1897		mg/Kg		95	70 - 130	5	35
o-Xylene	0.100	0.09454		mg/Kg		95	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.05173		mg/Kg					
Toluene	<0.00202	U	0.100	0.07158		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

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

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00202	U	0.100	0.07812		mg/Kg					
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1557		mg/Kg					
o-Xylene	<0.00202	U	0.100	0.07460		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-1456-A-1-D MS

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-10061/1-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

Lab Sample ID: LCS 880-10061/2-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	974.4		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.6		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	103		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-10061/3-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	851.4		mg/Kg		85	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-7396-A-1-B MS

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 880-7396-A-1-C MSD

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	69.3		997	1071		mg/Kg		101	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	115		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10654/1-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/28/21 10:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-10654/2-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-10654/3-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.8		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-1423-A-1-J MS

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1020		253	1281	4	mg/Kg		103	90 - 110		

Lab Sample ID: 890-1423-A-1-K MSD

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1020		253	1272	4	mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

GC VOA

Prep Batch: 10041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Total/NA	Solid	5035	

Analysis Batch: 10083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Total/NA	Solid	8021B	10041

Analysis Batch: 10878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 10051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Total/NA	Solid	8015B NM	10061

Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 10654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Soluble	Solid	DI Leach	

Analysis Batch: 10793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1424-1	PH04D	Soluble	Solid	300.0	10654

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Client Sample ID: PH04D

Lab Sample ID: 890-1424-1

Date Collected: 10/08/21 14:21

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 21:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 17:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 10:44	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1424-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1424-1	PH04D	Solid	10/08/21 14:21	10/14/21 12:12	8

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 505-3334
Midland, TX (432) 704-2440, EL Paso, TX (515) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 382-7550, Carlsbad, NM (575) 986-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6707
Atlanta, GA (770) 445-8600


Work Order No.:

www.xenco.com

Page 1 of 1

Project Manager:		Kalei Jennings	Bill To: (if different)	
Company Name:		WSP USA	Company Name:	
Address:		3300 North A Street	Address:	
City, State ZIP:		Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com	

Work Order Comments				
Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RRd <input type="checkbox"/> Superfund <input type="checkbox"/>				
State of Project:				
Reporting Level <input type="checkbox"/>	<input type="checkbox"/> Level <input type="checkbox"/>	<input type="checkbox"/> PST/US <input type="checkbox"/>	<input type="checkbox"/> TRF <input type="checkbox"/>	Level <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/>	<input type="checkbox"/>	ADAPT <input type="checkbox"/>	Other:	

Project Name:		Azores Fed Com 4H		Turn Around		ANALYSIS REQUEST										Work Order Notes	
Project Number:		31402909.130		Routine: <input checked="" type="checkbox"/>													
Location:		Lea County		Rush:													
Sampler's Name:		Fatima Smith		Due Date:													
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									
Temperature (°C):		24/2.2		Thermometer ID													
Received Inact:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> NA <input checked="" type="checkbox"/>		Correction Factor:		-0.2											
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/>		Total Containers:													
Number of Containers																	
PA 8015)																	
EPA 0=8021)																	
de (EPA 300.0)																	
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>890-1424 Chain of Custody</p>  </div> <div style="flex: 1; border-left: 1px solid black; padding-left: 10px;"> <p>ANALYSIS REQUEST</p> </div> </div>																	
TAT starts the day received by the lab, if received by 4:30pm																	

[illegible]

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	10.14.21 1212			
3					
5					

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1424-1

SDG Number: 31402909.130

Login Number: 1424

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1424-1

SDG Number: 31402909.130

Login Number: 1424

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/21/21 09:51 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1425-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/29/2021 7:32:59 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1425-1
SDG: 31402909.130

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	19

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Job ID: 890-1425-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1425-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): PH03D (890-1425-1) and PH03E (890-1425-2). The container labels list <SAMPLE_ID>, while the COC lists <SAMPLEID>. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

coc: PH03D 10-8-21 1308 PH03E 10-8-21 1345

Samples: PH03C 10-8-21 1308 PH03D 10-8-21 1345

Analysis for TPH 8015, BTEX 8021, CHLORIDE for the following samples were put on hold by the client on 10/14/2021: PH03D (890-1425-1) and PH03E (890-1425-2). This analysis was originally requested on the chain-of-custody (COC).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH03D (890-1425-1) and (890-1456-A-1-C). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-10061 and analytical batch 880-10051 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Client Sample ID: PH03D

Lab Sample ID: 890-1425-1

Date Collected: 10/08/21 13:08

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 9

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:56	1
Toluene	0.00592		0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:56	1
Ethylbenzene	0.00529		0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:56	1
m-Xylene & p-Xylene	0.0186		0.00396	mg/Kg		10/21/21 10:15	10/21/21 21:56	1
o-Xylene	0.0110		0.00198	mg/Kg		10/21/21 10:15	10/21/21 21:56	1
Xylenes, Total	0.0296		0.00396	mg/Kg		10/21/21 10:15	10/21/21 21:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130	10/21/21 10:15	10/21/21 21:56	1
1,4-Difluorobenzene (Surr)	88		70 - 130	10/21/21 10:15	10/21/21 21:56	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0408		0.00396	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	315		49.9	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 18:34	1
Diesel Range Organics (Over C10-C28)	315		49.9	mg/Kg		10/21/21 09:42	10/21/21 18:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 18:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/21/21 09:42	10/21/21 18:34	1
o-Terphenyl	106		70 - 130			10/21/21 09:42	10/21/21 18:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	521		5.05	mg/Kg			10/28/21 10:56	1

Client Sample ID: PH03E

Lab Sample ID: 890-1425-2

Date Collected: 10/08/21 13:45

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 16

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:16	1
Toluene	0.00261		0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/21/21 10:15	10/21/21 22:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/21/21 10:15	10/21/21 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	10/21/21 10:15	10/21/21 22:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Client Sample ID: PH03E

Lab Sample ID: 890-1425-2

Date Collected: 10/08/21 13:45

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 16

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	86		70 - 130	10/21/21 10:15	10/21/21 22:16	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 18:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 18:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 18:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/21/21 09:42	10/21/21 18:54	1
o-Terphenyl	108		70 - 130			10/21/21 09:42	10/21/21 18:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		5.04	mg/Kg			10/28/21 11:13	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1425-1	PH03D	149 S1+	88
890-1425-2	PH03E	129	86
890-1456-A-1-B MSD	Matrix Spike Duplicate	121	85
890-1456-A-1-D MS	Matrix Spike	121	112
LCS 880-10041/1-A	Lab Control Sample	109	102
LCSD 880-10041/2-A	Lab Control Sample Dup	110	93
MB 880-10041/5-A	Method Blank	106	99
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-7396-A-1-B MS	Matrix Spike	111	106
880-7396-A-1-C MSD	Matrix Spike Duplicate	117	115
890-1425-1	PH03D	101	106
890-1425-2	PH03E	101	108
LCS 880-10061/2-A	Lab Control Sample	104	103
LCSD 880-10061/3-A	Lab Control Sample Dup	101	102
MB 880-10061/1-A	Method Blank	106	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10041/5-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/21/21 10:15	10/21/21 15:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/21/21 10:15	10/21/21 15:47	1

Lab Sample ID: LCS 880-10041/1-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08697		mg/Kg		87	70 - 130
Toluene	0.100	0.08587		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08675		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1814		mg/Kg		91	70 - 130
o-Xylene	0.100	0.08832		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-10041/2-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08674		mg/Kg		87	70 - 130	0	35
Toluene	0.100	0.08951		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.08985		mg/Kg		90	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1897		mg/Kg		95	70 - 130	5	35
o-Xylene	0.100	0.09454		mg/Kg		95	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.05173		mg/Kg					
Toluene	<0.00202	U	0.100	0.07158		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

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

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00202	U	0.100	0.07812		mg/Kg					
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1557		mg/Kg					
o-Xylene	<0.00202	U	0.100	0.07460		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-1456-A-1-D MS

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-10061/1-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

Lab Sample ID: LCS 880-10061/2-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	974.4		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.6		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	103		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-10061/3-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	851.4		mg/Kg		85	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-7396-A-1-B MS

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 880-7396-A-1-C MSD

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	69.3		997	1071		mg/Kg		101	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	115		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10654/1-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/28/21 10:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-10654/2-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-10654/3-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.8		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-1423-A-1-J MS

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1020		253	1281	4	mg/Kg		103	90 - 110		

Lab Sample ID: 890-1423-A-1-K MSD

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1020		253	1272	4	mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

GC VOA

Prep Batch: 10041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Total/NA	Solid	5035	
890-1425-2	PH03E	Total/NA	Solid	5035	
MB 880-10041/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-10041/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-10041/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1456-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Total/NA	Solid	8021B	10041
890-1425-2	PH03E	Total/NA	Solid	8021B	10041
MB 880-10041/5-A	Method Blank	Total/NA	Solid	8021B	10041
LCS 880-10041/1-A	Lab Control Sample	Total/NA	Solid	8021B	10041
LCSD 880-10041/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	10041
890-1456-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	10041
890-1456-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	

Analysis Batch: 10878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Total/NA	Solid	Total BTEX	
890-1425-2	PH03E	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 10051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Total/NA	Solid	8015B NM	10061
890-1425-2	PH03E	Total/NA	Solid	8015B NM	10061
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015B NM	10061
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10061
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10061
880-7396-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	10061
880-7396-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10061

Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Total/NA	Solid	8015NM Prep	
890-1425-2	PH03E	Total/NA	Solid	8015NM Prep	
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7396-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7396-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Total/NA	Solid	8015 NM	
890-1425-2	PH03E	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

HPLC/IC

Leach Batch: 10654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Soluble	Solid	DI Leach	
890-1425-2	PH03E	Soluble	Solid	DI Leach	
MB 880-10654/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10654/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10654/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1423-A-1-J MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1423-A-1-K MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 10793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1425-1	PH03D	Soluble	Solid	300.0	10654
890-1425-2	PH03E	Soluble	Solid	300.0	10654
MB 880-10654/1-A	Method Blank	Soluble	Solid	300.0	10654
LCS 880-10654/2-A	Lab Control Sample	Soluble	Solid	300.0	10654
LCSD 880-10654/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10654
890-1423-A-1-J MS	Matrix Spike	Soluble	Solid	300.0	10654
890-1423-A-1-K MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10654

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Client Sample ID: PH03D

Lab Sample ID: 890-1425-1

Date Collected: 10/08/21 13:08

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 21:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 18:34	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 10:56	CH	XEN MID

Client Sample ID: PH03E

Lab Sample ID: 890-1425-2

Date Collected: 10/08/21 13:45

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 22:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 18:54	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 11:13	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1425-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1425-1	PH03D	Solid	10/08/21 13:08	10/14/21 12:12	9
890-1425-2	PH03E	Solid	10/08/21 13:45	10/14/21 12:12	16

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Chain of Custody


Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (565-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 986-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 445-8800

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:		Kalei Jennings		Bill to: (if different)		
Company Name:		WSP USA		Company Name:		
Address:		3300 North A Street		Address:		
City, State ZIP:		Midland, TX 79705		City, State ZIP:		
Phone:		(817) 683-2503		Email:		kalei.jennings@wsp.com

Work Order Comments			
Program: UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RRR <input type="checkbox"/> Superfund <input type="checkbox"/>			
State of Project:			
Reporting Level <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input checked="" type="checkbox"/>			
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:			

ANALYSIS REQUEST										Work Order Notes	
Project Name:		Azores Fed Com 4H			Turn Around					TAT starts the day received by the lab, if received by 4:30pm	
Project Number:		31402909.130			Routine:		<input checked="" type="checkbox"/>				
Location:		Lea County			Rush:						
Sampler's Name:		Fatima Smith			Due Date:						
SAMPLE RECEIPT		Temp Blank:		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Temperature (°C):		24/2.2		Thermometer ID							
Received Inact:		<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No		Correction Factor:			-0.2		
Cooler Custody Seals:		<input type="checkbox"/> Yes		<input type="checkbox"/> No		N/A					
Sample Custody Seals:		<input type="checkbox"/> Yes		<input type="checkbox"/> No		N/A					
Number of Containers											
PA 8015)											
EPA 0=8021)											
de (EPA 300.0)											
 890-1425 Chain of Custody											

[illegible]

Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>		ICLUP / SPLP 6040		8RCRA	5b	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U												
<p>Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.</p>																																	

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	10-14-2012	4		
3			6		
5					

Downloaded Data001416 Rev. 2010

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1425-1

SDG Number: 31402909.130

Login Number: 1425

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1425-1

SDG Number: 31402909.130

Login Number: 1425

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/21/21 09:51 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1426-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

Revision: 1

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
11/11/2021 10:21:52 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1426-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	6
QC Sample Results	7
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Job ID: 890-1426-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-1426-1

REVISION

The report being provided is a revision of the original report sent on 10/29/2021. The report (revision 1) is being revised due to Per client email, requested depth 7' to be removed.

Report revision history

Receipt

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): PH02E (890-1426-1) and PH02F (890-1426-2). The container labels list <SAMPLE_ID>, while the COC lists <SAMPLEID>. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

coc: PH02F 10-8-21 1229 PH02E 10-8-21 1221

Samples: PH02E 10-8-21 1229 PH02D 10-8-21 1221

Analysis for TPH 8015, BTEX 8021, CHLORIDE for the following samples were put on hold by the client on 10/14/2021: PH02E (890-1426-1) and PH02F (890-1426-2). This analysis was originally requested on the chain-of-custody (COC).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Client Sample ID: PH02E

Lab Sample ID: 890-1426-1

Date Collected: 10/08/21 12:21

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:36	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:36	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/21/21 10:15	10/21/21 22:36	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/21/21 10:15	10/21/21 22:36	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/21/21 10:15	10/21/21 22:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	10/21/21 10:15	10/21/21 22:36	1
1,4-Difluorobenzene (Surr)	95		70 - 130	10/21/21 10:15	10/21/21 22:36	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	61.2		50.0	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 19:13	1
Diesel Range Organics (Over C10-C28)	61.2		50.0	mg/Kg		10/21/21 09:42	10/21/21 19:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/21/21 09:42	10/21/21 19:13	1
o-Terphenyl	106		70 - 130	10/21/21 09:42	10/21/21 19:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.2		4.98	mg/Kg			10/28/21 11:19	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1426-1	PH02E	122	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1426-1	PH02E	101	106

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10041/5-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/21/21 10:15	10/21/21 15:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/21/21 10:15	10/21/21 15:47	1

Lab Sample ID: LCS 880-10041/1-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08697		mg/Kg		87	70 - 130
Toluene	0.100	0.08587		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08675		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1814		mg/Kg		91	70 - 130
o-Xylene	0.100	0.08832		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-10041/2-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08674		mg/Kg		87	70 - 130	0	35
Toluene	0.100	0.08951		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.08985		mg/Kg		90	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1897		mg/Kg		95	70 - 130	5	35
o-Xylene	0.100	0.09454		mg/Kg		95	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.05173		mg/Kg					
Toluene	<0.00202	U	0.100	0.07158		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

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

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00202	U	0.100	0.07812		mg/Kg					
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1557		mg/Kg					
o-Xylene	<0.00202	U	0.100	0.07460		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-1456-A-1-D MS

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-10061/1-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

Lab Sample ID: LCS 880-10061/2-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	974.4		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.6		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	103		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-10061/3-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	851.4		mg/Kg		85	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-7396-A-1-B MS

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 880-7396-A-1-C MSD

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	69.3		997	1071		mg/Kg		101	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	115		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10654/1-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/28/21 10:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-10654/2-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-10654/3-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.8		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-1423-A-1-J MS

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1020		253	1281	4	mg/Kg		103	90 - 110		

Lab Sample ID: 890-1423-A-1-K MSD

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1020		253	1272	4	mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

GC VOA

Prep Batch: 10041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Total/NA	Solid	5035	

Analysis Batch: 10083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Total/NA	Solid	8021B	10041

Analysis Batch: 10878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 10051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Total/NA	Solid	8015B NM	10061

Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 10654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Soluble	Solid	DI Leach	

Analysis Batch: 10793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1426-1	PH02E	Soluble	Solid	300.0	10654

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Client Sample ID: PH02E

Lab Sample ID: 890-1426-1

Date Collected: 10/08/21 12:21

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 22:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 19:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 11:19	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1426-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1426-1	PH02E	Solid	10/08/21 12:21	10/14/21 12:12	5

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 589-6701
 Atlanta, GA (770) 449-8800

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RRF <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Azores Fed Com 4H	Turn Around	
Project Number:	31402909.130	Routine:	<input checked="" type="checkbox"/>
Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temperature (°C):	2.4/2.2	Thermometer ID:	1111-003
Received intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Total Containers:	
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

ANALYSIS REQUEST	
Number of Containers	
TPH (EPA 8015)	
BTEX (EPA 0-8021)	
Chloride (EPA 300.0)	



890-1426 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Sample Comments
PH02E	S	10/8/2021	1221	5'	1				HOLD
PH02F	S	10/8/2021	1229	7'	1				HOLD
fatima									

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010- 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
fatima	Joe Gaby	10.14.21 1212			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1426-1

SDG Number: 31402909.130

Login Number: 1426

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1426-1

SDG Number: 31402909.130

Login Number: 1426

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/21/21 09:51 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1427-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

Revision: 1

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
11/11/2021 11:03:17 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1427-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	6
QC Sample Results	7
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Job ID: 890-1427-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-1427-1

REVISION

The report being provided is a revision of the original report sent on 10/29/2021. The report (revision 1) is being revised due to Per client email, requested sample depth 16.5' to be removed from report.

Report revision history

Receipt

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

Receipt Exceptions

Analysis for TPH 8015, BTEX 8021, Chloride for the following samples were put on hold by the client on 10/14/2021: PH01E (890-1427-1) and PH01F (890-1427-2). This analysis was originally requested on the chain-of-custody (COC).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01E (890-1427-1) and (890-1456-A-1-C). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Client Sample ID: PH01E

Lab Sample ID: 890-1427-1

Date Collected: 10/08/21 09:42

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 14

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 23:17	1
Toluene	0.00228		0.00200	mg/Kg		10/21/21 10:15	10/21/21 23:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 23:17	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/21/21 10:15	10/21/21 23:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 23:17	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/21/21 10:15	10/21/21 23:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130	10/21/21 10:15	10/21/21 23:17	1
1,4-Difluorobenzene (Surr)	94		70 - 130	10/21/21 10:15	10/21/21 23:17	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/28/21 17:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/27/21 12:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 19:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 19:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/21/21 09:42	10/21/21 19:53	1
o-Terphenyl	108		70 - 130	10/21/21 09:42	10/21/21 19:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	152		4.95	mg/Kg			10/28/21 11:31	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)**Matrix: Solid****Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1427-1	PH01E	137 S1+	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)**Matrix: Solid****Prep Type: Total/NA**

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1427-1	PH01E	101	108

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-10041/5-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/21/21 10:15	10/21/21 15:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/21/21 10:15	10/21/21 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	10/21/21 10:15	10/21/21 15:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	10/21/21 10:15	10/21/21 15:47	1

Lab Sample ID: LCS 880-10041/1-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08697		mg/Kg		87	70 - 130
Toluene	0.100	0.08587		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08675		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1814		mg/Kg		91	70 - 130
o-Xylene	0.100	0.08832		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-10041/2-A

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08674		mg/Kg		87	70 - 130	0	35
Toluene	0.100	0.08951		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.08985		mg/Kg		90	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1897		mg/Kg		95	70 - 130	5	35
o-Xylene	0.100	0.09454		mg/Kg		95	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.05173		mg/Kg					
Toluene	<0.00202	U	0.100	0.07158		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

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

Lab Sample ID: 890-1456-A-1-B MSD

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00202	U	0.100	0.07812		mg/Kg					
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1557		mg/Kg					
o-Xylene	<0.00202	U	0.100	0.07460		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 890-1456-A-1-D MS

Matrix: Solid

Analysis Batch: 10083

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-10061/1-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 10061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

Lab Sample ID: LCS 880-10061/2-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	974.4		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	874.6		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	103		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-10061/3-A

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	851.4		mg/Kg		85	70 - 130	3	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-7396-A-1-B MS

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130		
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 880-7396-A-1-C MSD

Matrix: Solid

Analysis Batch: 10051

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	69.3		997	1071		mg/Kg		101	70 - 130	5	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	115		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10654/1-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/28/21 10:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-10654/2-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-10654/3-A

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	245.8		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-1423-A-1-J MS

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1020		253	1281	4	mg/Kg		103	90 - 110		

Lab Sample ID: 890-1423-A-1-K MSD

Matrix: Solid

Analysis Batch: 10793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1020		253	1272	4	mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

GC VOA

Prep Batch: 10041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Total/NA	Solid	5035	

Analysis Batch: 10083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Total/NA	Solid	8021B	10041

Analysis Batch: 10878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 10051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Total/NA	Solid	8015B NM	10061

Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 10654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Soluble	Solid	DI Leach	

Analysis Batch: 10793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1427-1	PH01E	Soluble	Solid	300.0	10654

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Client Sample ID: PH01E

Lab Sample ID: 890-1427-1

Date Collected: 10/08/21 09:42

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	10041	10/21/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	10083	10/21/21 23:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10878	10/28/21 17:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 19:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	10654	10/26/21 16:57	CA	XEN MID
Soluble	Analysis	300.0		1			10793	10/28/21 11:31	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1427-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1427-1	PH01E	Solid	10/08/21 09:42	10/14/21 12:12	14

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



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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 589-6701
Atlanta, GA (770) 449-8800

Chain of Custody


Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RR <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level: <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Azores Fed Com 4H	Turn Around	
Project Number:	31402909.130	Routine:	<input checked="" type="checkbox"/>
Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
SAMPLE RECEIPT		Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Temperature (°C):	2.4 / 2.2	Thermometer ID	
Received Intact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Correction Factor:	77W-003
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Total Containers:	-0.2
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
PH01E	S	10/8/2021	0942	14'	1					
PH01F	S	10/8/2021	0948	16.5'	1					
<div>890-1427 Chain of Custody</div> 										
										TAT starts the day received by the lab, if received by 4:30pm
										Sample Comments
										HOLD
										HOLD

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	10.14.21 1212			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1427-1

SDG Number: 31402909.130

Login Number: 1427

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1427-1

SDG Number: 31402909.130

Login Number: 1427

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/21/21 09:51 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1428-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/22/2021 11:57:51 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1428-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	16
Lab Chronicle	19
Certification Summary	20
Method Summary	21
Sample Summary	22
Chain of Custody	23
Receipt Checklists	25

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Job ID: 890-1428-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1428-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9748 and analytical batch 880-9846 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH03 (890-1428-1) and PH03A (890-1428-2). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9911 and analytical batch 880-10084 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-1434-A-1-D). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH03B (890-1428-3), (890-1428-A-3-D MS) and (890-1428-A-3-E MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Client Sample ID: PH03

Lab Sample ID: 890-1428-1

Date Collected: 10/08/21 12:40

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0165		0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:38	1
Toluene	0.107	F1	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:38	1
Ethylbenzene	0.181	F1	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:38	1
m-Xylene & p-Xylene	0.0164		0.00399	mg/Kg		10/18/21 14:06	10/20/21 01:38	1
o-Xylene	14.4		0.201	mg/Kg		10/19/21 15:07	10/21/21 17:48	100
Xylenes, Total	15.8		0.402	mg/Kg		10/19/21 15:07	10/21/21 17:48	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	535	S1+	70 - 130	10/18/21 14:06	10/20/21 01:38	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:06	10/20/21 01:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	14.7		0.00399	mg/Kg			10/21/21 16:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6730		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1090		49.8	mg/Kg		10/18/21 08:11	10/18/21 14:22	1
Diesel Range Organics (Over C10-C28)	4880		49.8	mg/Kg		10/18/21 08:11	10/18/21 14:22	1
Oil Range Organics (Over C28-C36)	763		49.8	mg/Kg		10/18/21 08:11	10/18/21 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130	10/18/21 08:11	10/18/21 14:22	1
o-Terphenyl	103		70 - 130	10/18/21 08:11	10/18/21 14:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	918		4.96	mg/Kg			10/19/21 18:51	1

Client Sample ID: PH03A

Lab Sample ID: 890-1428-2

Date Collected: 10/08/21 12:43

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.103		0.00198	mg/Kg		10/18/21 14:06	10/20/21 01:58	1
Toluene	5.60		0.200	mg/Kg		10/19/21 15:07	10/21/21 18:08	100
Ethylbenzene	3.64		0.200	mg/Kg		10/19/21 15:07	10/21/21 18:08	100
m-Xylene & p-Xylene	0.0534		0.00396	mg/Kg		10/18/21 14:06	10/20/21 01:58	1
o-Xylene	7.32		0.200	mg/Kg		10/19/21 15:07	10/21/21 18:08	100
Xylenes, Total	20.5		0.399	mg/Kg		10/19/21 15:07	10/21/21 18:08	100

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Client Sample ID: PH03A

Lab Sample ID: 890-1428-2

Date Collected: 10/08/21 12:43

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	715	S1+	70 - 130	10/18/21 14:06	10/20/21 01:58	1
1,4-Difluorobenzene (Surr)	56	S1-	70 - 130	10/18/21 14:06	10/20/21 01:58	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	16.7		0.200	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6640		49.9	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1060		49.9	mg/Kg		10/18/21 08:11	10/18/21 14:52	1
Diesel Range Organics (Over C10-C28)	4780		49.9	mg/Kg		10/18/21 08:11	10/18/21 14:52	1
Oil Range Organics (Over C28-C36)	799		49.9	mg/Kg		10/18/21 08:11	10/18/21 14:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130			10/18/21 08:11	10/18/21 14:52	1
o-Terphenyl	105		70 - 130			10/18/21 08:11	10/18/21 14:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4420		25.2	mg/Kg			10/19/21 18:57	5

Client Sample ID: PH03B

Lab Sample ID: 890-1428-3

Date Collected: 10/08/21 12:56

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:18	1
Toluene	0.0222		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:18	1
Ethylbenzene	0.00621		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:18	1
m-Xylene & p-Xylene	0.0297		0.00398	mg/Kg		10/18/21 14:06	10/20/21 02:18	1
o-Xylene	0.0242		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:18	1
Xylenes, Total	0.0539		0.00398	mg/Kg		10/18/21 14:06	10/20/21 02:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			10/18/21 14:06	10/20/21 02:18	1
1,4-Difluorobenzene (Surr)	105		70 - 130			10/18/21 14:06	10/20/21 02:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0823		0.00398	mg/Kg			10/21/21 17:04	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Client Sample ID: PH03B

Lab Sample ID: 890-1428-3

Date Collected: 10/08/21 12:56

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	13900		249	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	3310		49.9	mg/Kg		10/19/21 09:45	10/19/21 12:01	1
Diesel Range Organics (Over C10-C28)	9320		249	mg/Kg		10/19/21 09:45	10/20/21 07:49	5
Oil Range Organics (Over C28-C36)	1250		49.9	mg/Kg		10/19/21 09:45	10/19/21 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	259	S1+	70 - 130	10/19/21 09:45	10/19/21 12:01	1
1-Chlorooctane	147	S1+	70 - 130	10/19/21 09:45	10/20/21 07:49	5
o-Terphenyl	191	S1+	70 - 130	10/19/21 09:45	10/19/21 12:01	1
o-Terphenyl	111		70 - 130	10/19/21 09:45	10/20/21 07:49	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9070		49.7	mg/Kg			10/19/21 19:02	10

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1428-1	PH03	535 S1+	93
890-1428-1 MS	PH03	98	107
890-1428-1 MSD	PH03	107	105
890-1428-2	PH03A	715 S1+	56 S1-
890-1428-3	PH03B	112	105
890-1434-A-1-B MS	Matrix Spike	136 S1+	125
890-1434-A-1-C MSD	Matrix Spike Duplicate	96	92
LCS 880-9748/1-A	Lab Control Sample	103	110
LCS 880-9911/1-A	Lab Control Sample	88	99
LCSD 880-9748/2-A	Lab Control Sample Dup	95	108
LCSD 880-9911/2-A	Lab Control Sample Dup	88	102
MB 880-9747/5-A	Method Blank	109	93
MB 880-9748/5-A	Method Blank	114	104
MB 880-9911/5-A	Method Blank	100	104
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1428-1	PH03	126	103
890-1428-2	PH03A	123	105
890-1428-3	PH03B	147 S1+	111
890-1428-3	PH03B	259 S1+	191 S1+
890-1428-3 MS	PH03B	312 S1+	215 S1+
890-1428-3 MSD	PH03B	268 S1+	203 S1+
890-1441-A-1-D MSD	Matrix Spike Duplicate	109	110
890-1441-A-1-E MS	Matrix Spike	109	112
LCS 880-9628/2-A	Lab Control Sample	92	95
LCS 880-9834/2-A	Lab Control Sample	94	96
LCSD 880-9628/3-A	Lab Control Sample Dup	89	93
LCSD 880-9834/3-A	Lab Control Sample Dup	86	89
MB 880-9628/1-A	Method Blank	112	130
MB 880-9834/1-A	Method Blank	101	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9747/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9747

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	10/18/21 14:01	10/19/21 14:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:01	10/19/21 14:25	1

Lab Sample ID: MB 880-9748/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9748

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	10/18/21 14:06	10/20/21 01:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/18/21 14:06	10/20/21 01:16	1

Lab Sample ID: LCS 880-9748/1-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1040		mg/Kg		104	70 - 130
Toluene	0.100	0.08958		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08535		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1765		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09487		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09387		mg/Kg		94	70 - 130	10	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.08336		mg/Kg		83	70 - 130	7	35
Ethylbenzene	0.100	0.07798		mg/Kg		78	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1605		mg/Kg		80	70 - 130	9	35
o-Xylene	0.100	0.08265		mg/Kg		83	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-1428-1 MS

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: PH03

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0165		0.0996	0.09876		mg/Kg		83	70 - 130
Toluene	0.107	F1	0.0996	0.08737	F1	mg/Kg		-20	70 - 130
Ethylbenzene	0.181	F1	0.0996	0.08507	F1	mg/Kg		-96	70 - 130
m-Xylene & p-Xylene	0.0164		0.199	0.1725		mg/Kg		78	70 - 130
o-Xylene	2.38	E	0.0996	0.08738	4	mg/Kg		-2301	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-1428-1 MSD

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: PH03

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0165		0.100	0.08998		mg/Kg		73	70 - 130	9	35
Toluene	0.107	F1	0.100	0.08531	F1	mg/Kg		-22	70 - 130	2	35
Ethylbenzene	0.181	F1	0.100	0.08445	F1	mg/Kg		-96	70 - 130	1	35
m-Xylene & p-Xylene	0.0164		0.200	0.1755		mg/Kg		80	70 - 130	2	35
o-Xylene	2.38	E	0.100	0.08882	4	mg/Kg		-2291	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

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

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/19/21 15:07	10/21/21 13:59	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/19/21 15:07	10/21/21 13:59	1

Lab Sample ID: LCS 880-9911/1-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1034		mg/Kg		103	70 - 130
Toluene	0.100	0.1080		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1174		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.2275		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1186		mg/Kg		119	70 - 130

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

Lab Sample ID: LCSD 880-9911/2-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1055		mg/Kg		105	70 - 130	2	35
Toluene	0.100	0.1109		mg/Kg		111	70 - 130	3	35
Ethylbenzene	0.100	0.1167		mg/Kg		117	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2266		mg/Kg		113	70 - 130	0	35
o-Xylene	0.100	0.1189		mg/Kg		119	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.09342		mg/Kg		94	70 - 130
Toluene	<0.00199	U	0.0990	0.1154		mg/Kg		116	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1197		mg/Kg		121	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2190		mg/Kg		111	70 - 130
o-Xylene	<0.00199	U F1	0.0990	0.1308	F1	mg/Kg		131	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

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

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

Lab Sample ID: 890-1434-A-1-C MSD

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07836		mg/Kg		78	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09275		mg/Kg		92	70 - 130	22	35
Ethylbenzene	<0.00199	U	0.100	0.09852		mg/Kg		99	70 - 130	19	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1818		mg/Kg		91	70 - 130	19	35
o-Xylene	<0.00199	U F1	0.100	0.09965		mg/Kg		99	70 - 130	27	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-9628/1-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9628

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	112		70 - 130	10/18/21 08:11	10/18/21 11:23	1		
o-Terphenyl	130		70 - 130	10/18/21 08:11	10/18/21 11:23	1		

Lab Sample ID: LCS 880-9628/2-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	830.0		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	925.1		mg/Kg		93	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	95		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9628/3-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	778.9		mg/Kg		78	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	929.8		mg/Kg		93	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	89		70 - 130						
o-Terphenyl	93		70 - 130						

Lab Sample ID: 890-1441-A-1-D MSD

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9628

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-1441-A-1-E MS

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	882.7		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1055		mg/Kg		103	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	109		70 - 130						
o-Terphenyl	112		70 - 130						

Lab Sample ID: MB 880-9834/1-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9834

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	101		70 - 130	10/19/21 09:45	10/19/21 10:56	1		
o-Terphenyl	116		70 - 130	10/19/21 09:45	10/19/21 10:56	1		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

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

Lab Sample ID: LCS 880-9834/2-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9834

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec.		
			Added	Result	Qualifier			Limits			
Gasoline Range Organics (GRO)-C6-C10			1000	822.9		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1015		mg/Kg		101	70 - 130		

Lab Sample ID: LCSD 880-9834/3-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9834

Top Data: 66%												
Analyte				Spike	LCSD	LCSD				%Rec.	RPD	
				Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10				1000	825.7		mg/Kg		83	70 - 130	0	20
Diesel Range Organics (Over C10-C28)				1000	965.7		mg/Kg		97	70 - 130	5	20
Bottom Data: 66%												
Surrogate	LCSD		Limits									
	%Recovery	Qualifier										
1-Chlorooctane	86		70 - 130									
o-Terphenyl	89		70 - 130									

Lab Sample ID: 890-1428-3 MS

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: PH03B

Prep Type: Total/NA

Prep Batch: 9834

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	3310		998	4234		mg/Kg		92	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	312	S1+	70 - 130								
o-Terphenyl	215	S1+	70 - 130								

Lab Sample ID: 890-1428-3 MSD

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: PH03B

Prep Type: Total/NA

Prep Batch: 9834

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		Limit
Gasoline Range Organics (GRO)-C6-C10	3310		1000	4491		mg/Kg		118	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	268	S1+	70 - 130								
o-Terphenyl	203	S1+	70 - 130								

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9736/1-A

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/19/21 16:36	1

Lab Sample ID: LCS 880-9736/2-A

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	238.4		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-9736/3-A

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	239.3		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-1422-A-28-B MS

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	967		251	1199		mg/Kg		93	90 - 110

Lab Sample ID: 890-1422-A-28-C MSD

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	967		251	1201		mg/Kg		93	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

GC VOA

Prep Batch: 9747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-9747/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 9748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	5035	
890-1428-2	PH03A	Total/NA	Solid	5035	
890-1428-3	PH03B	Total/NA	Solid	5035	
MB 880-9748/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1428-1 MS	PH03	Total/NA	Solid	5035	
890-1428-1 MSD	PH03	Total/NA	Solid	5035	

Analysis Batch: 9846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	8021B	9748
890-1428-2	PH03A	Total/NA	Solid	8021B	9748
890-1428-3	PH03B	Total/NA	Solid	8021B	9748
MB 880-9747/5-A	Method Blank	Total/NA	Solid	8021B	9747
MB 880-9748/5-A	Method Blank	Total/NA	Solid	8021B	9748
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	8021B	9748
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9748
890-1428-1 MS	PH03	Total/NA	Solid	8021B	9748
890-1428-1 MSD	PH03	Total/NA	Solid	8021B	9748

Prep Batch: 9911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	5035	
890-1428-2	PH03A	Total/NA	Solid	5035	
MB 880-9911/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	8021B	9911
890-1428-2	PH03A	Total/NA	Solid	8021B	9911
MB 880-9911/5-A	Method Blank	Total/NA	Solid	8021B	9911
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	8021B	9911
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9911
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	9911
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9911

Analysis Batch: 10147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	Total BTEX	
890-1428-2	PH03A	Total/NA	Solid	Total BTEX	
890-1428-3	PH03B	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

GC Semi VOA

Analysis Batch: 9623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	8015B NM	9628
890-1428-2	PH03A	Total/NA	Solid	8015B NM	9628
MB 880-9628/1-A	Method Blank	Total/NA	Solid	8015B NM	9628
LCS 880-9628/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9628
LCSD 880-9628/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9628
890-1441-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9628
890-1441-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	9628

Prep Batch: 9628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	8015NM Prep	
890-1428-2	PH03A	Total/NA	Solid	8015NM Prep	
MB 880-9628/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9628/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9628/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1441-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
890-1441-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 9827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-3	PH03B	Total/NA	Solid	8015B NM	9834
890-1428-3	PH03B	Total/NA	Solid	8015B NM	9834
MB 880-9834/1-A	Method Blank	Total/NA	Solid	8015B NM	9834
LCS 880-9834/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9834
LCSD 880-9834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9834
890-1428-3 MS	PH03B	Total/NA	Solid	8015B NM	9834
890-1428-3 MSD	PH03B	Total/NA	Solid	8015B NM	9834

Prep Batch: 9834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-3	PH03B	Total/NA	Solid	8015NM Prep	
MB 880-9834/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9834/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1428-3 MS	PH03B	Total/NA	Solid	8015NM Prep	
890-1428-3 MSD	PH03B	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Total/NA	Solid	8015 NM	
890-1428-2	PH03A	Total/NA	Solid	8015 NM	
890-1428-3	PH03B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 9736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Soluble	Solid	DI Leach	
890-1428-2	PH03A	Soluble	Solid	DI Leach	
890-1428-3	PH03B	Soluble	Solid	DI Leach	
MB 880-9736/1-A	Method Blank	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

HPLC/IC (Continued)

Leach Batch: 9736 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-9736/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9736/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1422-A-28-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1422-A-28-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 9838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-1	PH03	Soluble	Solid	300.0	9736
890-1428-2	PH03A	Soluble	Solid	300.0	9736
890-1428-3	PH03B	Soluble	Solid	300.0	9736
MB 880-9736/1-A	Method Blank	Soluble	Solid	300.0	9736
LCS 880-9736/2-A	Lab Control Sample	Soluble	Solid	300.0	9736
LCSD 880-9736/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9736
890-1422-A-28-B MS	Matrix Spike	Soluble	Solid	300.0	9736
890-1422-A-28-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	9736

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Client Sample ID: PH03

Lab Sample ID: 890-1428-1

Date Collected: 10/08/21 12:40

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 17:48	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 01:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 16:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 14:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		1			9838	10/19/21 18:51	CH	XEN MID

Client Sample ID: PH03A

Lab Sample ID: 890-1428-2

Date Collected: 10/08/21 12:43

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 18:08	MR	XEN MID
Total/NA	Prep	5035			5.05 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 01:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 14:52	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		5			9838	10/19/21 18:57	CH	XEN MID

Client Sample ID: PH03B

Lab Sample ID: 890-1428-3

Date Collected: 10/08/21 12:56

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 02:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9834	10/19/21 09:45	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			9827	10/19/21 12:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9834	10/19/21 09:45	AJ	XEN MID
Total/NA	Analysis	8015B NM		5			9827	10/20/21 07:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		10			9838	10/19/21 19:02	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1428-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1428-1	PH03	Solid	10/08/21 12:40	10/14/21 12:12	1
890-1428-2	PH03A	Solid	10/08/21 12:43	10/14/21 12:12	3
890-1428-3	PH03B	Solid	10/08/21 12:56	10/14/21 12:12	6



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com
Project Name:	Azores Fed Com 4H	Turn Around	
Project Number:	31402909.130	Routine:	<input checked="" type="checkbox"/>
Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Wet Ice: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Temperature (°C):	2.4/2.2	Thermometer ID	TM-007
Received In tact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		



890-1428 Chain of Custody

SAMPLE IDENTIFICATION				ANALYSIS REQUEST				Work Order Notes	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Sample Comments
PH03	S	10/8/2021	1240	1'	1				
PH03A	S	10/8/2021	1243	3'	1				
PH03B	S	10/8/2021	1256	6'	1				

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
fat	Joe Guf	10.14.21 12:22			

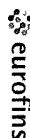
Eurofins Xenco, Carlsbad

1089 N Canal St.

Carlsbad, NM 88220
Phone 575 988 3100

Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1428-1

SDG Number: 31402909.130

Login Number: 1428

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1428-1

SDG Number: 31402909.130

Login Number: 1428

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/15/21 12:19 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1429-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/22/2021 11:58:13 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1429-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	16
Lab Chronicle	19
Certification Summary	21
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	26

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Job ID: 890-1429-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1429-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9747 and analytical batch 880-9846 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH02 (890-1429-1) and PH02C (890-1429-4). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9911 and analytical batch 880-10084 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-1434-A-1-D). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Client Sample ID: PH02

Lab Sample ID: 890-1429-1

Date Collected: 10/08/21 12:08

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0977	F1	0.00201	mg/Kg		10/18/21 14:01	10/19/21 14:46	1
Toluene	0.240		0.198	mg/Kg		10/19/21 15:07	10/21/21 19:58	100
Ethylbenzene	1.56		0.198	mg/Kg		10/19/21 15:07	10/21/21 19:58	100
m-Xylene & p-Xylene	5.13		0.396	mg/Kg		10/19/21 15:07	10/21/21 19:58	100
o-Xylene	7.64		0.198	mg/Kg		10/19/21 15:07	10/21/21 19:58	100
Xylenes, Total	12.8		0.396	mg/Kg		10/19/21 15:07	10/21/21 19:58	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	1128	S1+	70 - 130	10/18/21 14:01	10/19/21 14:46	1
1,4-Difluorobenzene (Surr)	118		70 - 130	10/18/21 14:01	10/19/21 14:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	14.7		0.396	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	7030		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1040		49.8	mg/Kg		10/18/21 08:11	10/18/21 15:25	1
Diesel Range Organics (Over C10-C28)	5050		49.8	mg/Kg		10/18/21 08:11	10/18/21 15:25	1
Oil Range Organics (Over C28-C36)	941		49.8	mg/Kg		10/18/21 08:11	10/18/21 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130	10/18/21 08:11	10/18/21 15:25	1
o-Terphenyl	96		70 - 130	10/18/21 08:11	10/18/21 15:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320		5.04	mg/Kg			10/19/21 19:08	1

Client Sample ID: PH02A

Lab Sample ID: 890-1429-2

Date Collected: 10/08/21 12:12

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00800		0.00200	mg/Kg		10/18/21 14:01	10/19/21 15:07	1
Toluene	1.39		0.200	mg/Kg		10/19/21 15:07	10/21/21 20:18	100
Ethylbenzene	2.24		0.200	mg/Kg		10/19/21 15:07	10/21/21 20:18	100
m-Xylene & p-Xylene	6.90		0.400	mg/Kg		10/19/21 15:07	10/21/21 20:18	100
o-Xylene	0.0248		0.00200	mg/Kg		10/18/21 14:01	10/19/21 15:07	1
Xylenes, Total	11.8		0.400	mg/Kg		10/19/21 15:07	10/21/21 20:18	100

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Client Sample ID: PH02A

Lab Sample ID: 890-1429-2

Date Collected: 10/08/21 12:12

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	395	S1+	70 - 130	10/18/21 14:01	10/19/21 15:07	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:01	10/19/21 15:07	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	10.6		0.400	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5950		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	868		49.8	mg/Kg		10/18/21 08:11	10/18/21 15:59	1
Diesel Range Organics (Over C10-C28)	4330		49.8	mg/Kg		10/18/21 08:11	10/18/21 15:59	1
Oil Range Organics (Over C28-C36)	753		49.8	mg/Kg		10/18/21 08:11	10/18/21 15:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130			10/18/21 08:11	10/18/21 15:59	1
o-Terphenyl	104		70 - 130			10/18/21 08:11	10/18/21 15:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1140		5.03	mg/Kg			10/19/21 19:14	1

Client Sample ID: PH02B

Lab Sample ID: 890-1429-3

Date Collected: 10/08/21 12:15

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 15:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 15:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 15:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/18/21 14:01	10/19/21 15:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 15:27	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/18/21 14:01	10/19/21 15:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			10/18/21 14:01	10/19/21 15:27	1
1,4-Difluorobenzene (Surr)	110		70 - 130			10/18/21 14:01	10/19/21 15:27	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/21/21 17:04	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Client Sample ID: PH02B

Lab Sample ID: 890-1429-3

Date Collected: 10/08/21 12:15

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	263		49.9	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/18/21 08:11	10/18/21 16:27	1
Diesel Range Organics (Over C10-C28)	177		49.9	mg/Kg		10/18/21 08:11	10/18/21 16:27	1
Oil Range Organics (Over C28-C36)	85.7		49.9	mg/Kg		10/18/21 08:11	10/18/21 16:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			10/18/21 08:11	10/18/21 16:27	1
o-Terphenyl	119		70 - 130			10/18/21 08:11	10/18/21 16:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	202		4.97	mg/Kg			10/19/21 19:19	1

Client Sample ID: PH02C

Lab Sample ID: 890-1429-4

Date Collected: 10/08/21 12:18

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.403	U	0.403	mg/Kg		10/19/21 15:07	10/21/21 20:38	200
Toluene	<0.00201	U	0.00201	mg/Kg		10/18/21 14:01	10/19/21 15:47	1
Ethylbenzene	<0.403	U	0.403	mg/Kg		10/19/21 15:07	10/21/21 20:38	200
m-Xylene & p-Xylene	<0.806	U	0.806	mg/Kg		10/19/21 15:07	10/21/21 20:38	200
o-Xylene	<0.403	U	0.403	mg/Kg		10/19/21 15:07	10/21/21 20:38	200
Xylenes, Total	<0.806	U	0.806	mg/Kg		10/19/21 15:07	10/21/21 20:38	200
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	5	S1-	70 - 130			10/18/21 14:01	10/19/21 15:47	1
1,4-Difluorobenzene (Surr)	0	S1-	70 - 130			10/18/21 14:01	10/19/21 15:47	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.806	U	0.806	mg/Kg			10/22/21 12:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	198		50.0	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 16:48	1
Diesel Range Organics (Over C10-C28)	148		50.0	mg/Kg		10/18/21 08:11	10/18/21 16:48	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Client Sample ID: PH02C

Lab Sample ID: 890-1429-4

Date Collected: 10/08/21 12:18

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	50.4		50.0	mg/Kg		10/18/21 08:11	10/18/21 16:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			10/18/21 08:11	10/18/21 16:48	1
o-Terphenyl	107		70 - 130			10/18/21 08:11	10/18/21 16:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		4.99	mg/Kg			10/19/21 19:25	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1429-1	PH02	1128 S1+	118
890-1429-1 MS	PH02	104	105
890-1429-1 MSD	PH02	105	106
890-1429-2	PH02A	395 S1+	93
890-1429-3	PH02B	106	110
890-1429-4	PH02C	5 S1-	0 S1-
890-1434-A-1-B MS	Matrix Spike	136 S1+	125
890-1434-A-1-C MSD	Matrix Spike Duplicate	96	92
LCS 880-9747/1-A	Lab Control Sample	108	103
LCS 880-9911/1-A	Lab Control Sample	88	99
LCSD 880-9747/2-A	Lab Control Sample Dup	106	102
LCSD 880-9911/2-A	Lab Control Sample Dup	88	102
MB 880-9747/5-A	Method Blank	109	93
MB 880-9911/5-A	Method Blank	100	104
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1429-1	PH02	122	96
890-1429-2	PH02A	124	104
890-1429-3	PH02B	109	119
890-1429-4	PH02C	99	107
890-1441-A-1-D MSD	Matrix Spike Duplicate	109	110
890-1441-A-1-E MS	Matrix Spike	109	112
LCS 880-9628/2-A	Lab Control Sample	92	95
LCSD 880-9628/3-A	Lab Control Sample Dup	89	93
MB 880-9628/1-A	Method Blank	112	130
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9747/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9747

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	10/18/21 14:01	10/19/21 14:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:01	10/19/21 14:25	1

Lab Sample ID: LCS 880-9747/1-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9747

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09354		mg/Kg		94	70 - 130
Toluene	0.100	0.09048		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08880		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1861		mg/Kg		93	70 - 130
o-Xylene	0.100	0.09311		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-9747/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9747

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09489		mg/Kg		95	70 - 130	1	35
Toluene	0.100	0.08862		mg/Kg		89	70 - 130	2	35
Ethylbenzene	0.100	0.08705		mg/Kg		87	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1827		mg/Kg		91	70 - 130	2	35
o-Xylene	0.100	0.09071		mg/Kg		91	70 - 130	3	35

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

Lab Sample ID: 890-1429-1 MS

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: PH02

Prep Type: Total/NA

Prep Batch: 9747

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0977	F1	0.100	0.1029	F1	mg/Kg		5	70 - 130
Toluene	0.444	E	0.100	0.09589	4	mg/Kg		-346	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

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

Lab Sample ID: 890-1429-1 MS

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: PH02

Prep Type: Total/NA

Prep Batch: 9747

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	1.89	E	0.100	0.09382	4	mg/Kg		-1786	70 - 130
m-Xylene & p-Xylene	3.13	E	0.201	0.1961	4	mg/Kg		-1460	70 - 130
o-Xylene	3.17	E	0.100	0.09807	4	mg/Kg		-3056	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-1429-1 MSD

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: PH02

Prep Type: Total/NA

Prep Batch: 9747

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0977	F1	0.101	0.1022	F1	mg/Kg		4	70 - 130	1	35
Toluene	0.444	E	0.101	0.09529	4	mg/Kg		-346	70 - 130	1	35
Ethylbenzene	1.89	E	0.101	0.09345	4	mg/Kg		-1783	70 - 130	0	35
m-Xylene & p-Xylene	3.13	E	0.201	0.1971	4	mg/Kg		-1456	70 - 130	0	35
o-Xylene	3.17	E	0.101	0.09860	4	mg/Kg		-3049	70 - 130	1	35

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

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/19/21 15:07	10/21/21 13:59	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/19/21 15:07	10/21/21 13:59	1

Lab Sample ID: LCS 880-9911/1-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1034		mg/Kg		103	70 - 130
Toluene	0.100	0.1080		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1174		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.2275		mg/Kg		114	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

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

Lab Sample ID: LCS 880-9911/1-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	0.100	0.1186		mg/Kg		119	70 - 130

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

Lab Sample ID: LCSD 880-9911/2-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1055		mg/Kg		105	70 - 130	2	35
Toluene	0.100	0.1109		mg/Kg		111	70 - 130	3	35
Ethylbenzene	0.100	0.1167		mg/Kg		117	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2266		mg/Kg		113	70 - 130	0	35
o-Xylene	0.100	0.1189		mg/Kg		119	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.09342		mg/Kg		94	70 - 130
Toluene	<0.00199	U	0.0990	0.1154		mg/Kg		116	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1197		mg/Kg		121	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2190		mg/Kg		111	70 - 130
o-Xylene	<0.00199	U F1	0.0990	0.1308	F1	mg/Kg		131	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

Lab Sample ID: 890-1434-A-1-C MSD

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07836		mg/Kg		78	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09275		mg/Kg		92	70 - 130	22	35
Ethylbenzene	<0.00199	U	0.100	0.09852		mg/Kg		99	70 - 130	19	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1818		mg/Kg		91	70 - 130	19	35
o-Xylene	<0.00199	U F1	0.100	0.09965		mg/Kg		99	70 - 130	27	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

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

Lab Sample ID: 890-1434-A-1-C MSD

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9911

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-9628/1-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9628

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil	Fac
1-Chlorooctane	112		70 - 130			10/18/21 08:11	10/18/21 11:23	1	
o-Terphenyl	130		70 - 130			10/18/21 08:11	10/18/21 11:23	1	

Lab Sample ID: LCS 880-9628/2-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9628

	Spike	LCS	LCS					%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	830.0		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	925.1		mg/Kg		93	70 - 130		
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	92		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: LCSD 880-9628/3-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9628

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	778.9		mg/Kg		78	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	929.8		mg/Kg		93	70 - 130	1	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	89		70 - 130						
o-Terphenyl	93		70 - 130						

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

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

Lab Sample ID: 890-1441-A-1-D MSD

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9628

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-1441-A-1-E MS

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	882.7		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1055		mg/Kg		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	112		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9736/1-A

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/19/21 16:36	1

Lab Sample ID: LCS 880-9736/2-A

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	238.4		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-9736/3-A

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	239.3		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-1422-A-28-B MS

Matrix: Solid

Analysis Batch: 9838

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	967		251	1199		mg/Kg		93	90 - 110

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1422-A-28-C MSD					Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 9838												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	967		251	1201		mg/Kg		93	90 - 110	0	20	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

GC VOA

Prep Batch: 9747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	5035	
890-1429-2	PH02A	Total/NA	Solid	5035	
890-1429-3	PH02B	Total/NA	Solid	5035	
890-1429-4	PH02C	Total/NA	Solid	5035	
MB 880-9747/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9747/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9747/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1429-1 MS	PH02	Total/NA	Solid	5035	
890-1429-1 MSD	PH02	Total/NA	Solid	5035	

Analysis Batch: 9846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	8021B	9747
890-1429-2	PH02A	Total/NA	Solid	8021B	9747
890-1429-3	PH02B	Total/NA	Solid	8021B	9747
890-1429-4	PH02C	Total/NA	Solid	8021B	9747
MB 880-9747/5-A	Method Blank	Total/NA	Solid	8021B	9747
LCS 880-9747/1-A	Lab Control Sample	Total/NA	Solid	8021B	9747
LCSD 880-9747/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9747
890-1429-1 MS	PH02	Total/NA	Solid	8021B	9747
890-1429-1 MSD	PH02	Total/NA	Solid	8021B	9747

Prep Batch: 9911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	5035	
890-1429-2	PH02A	Total/NA	Solid	5035	
890-1429-4	PH02C	Total/NA	Solid	5035	
MB 880-9911/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	8021B	9911
890-1429-2	PH02A	Total/NA	Solid	8021B	9911
890-1429-4	PH02C	Total/NA	Solid	8021B	9911
MB 880-9911/5-A	Method Blank	Total/NA	Solid	8021B	9911
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	8021B	9911
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9911
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	9911
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9911

Analysis Batch: 10147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	Total BTEX	
890-1429-2	PH02A	Total/NA	Solid	Total BTEX	
890-1429-3	PH02B	Total/NA	Solid	Total BTEX	
890-1429-4	PH02C	Total/NA	Solid	Total BTEX	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

GC Semi VOA

Analysis Batch: 9623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	8015B NM	9628
890-1429-2	PH02A	Total/NA	Solid	8015B NM	9628
890-1429-3	PH02B	Total/NA	Solid	8015B NM	9628
890-1429-4	PH02C	Total/NA	Solid	8015B NM	9628
MB 880-9628/1-A	Method Blank	Total/NA	Solid	8015B NM	9628
LCS 880-9628/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9628
LCSD 880-9628/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9628
890-1441-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9628
890-1441-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	9628

Prep Batch: 9628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	8015NM Prep	
890-1429-2	PH02A	Total/NA	Solid	8015NM Prep	
890-1429-3	PH02B	Total/NA	Solid	8015NM Prep	
890-1429-4	PH02C	Total/NA	Solid	8015NM Prep	
MB 880-9628/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9628/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9628/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1441-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
890-1441-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Total/NA	Solid	8015 NM	
890-1429-2	PH02A	Total/NA	Solid	8015 NM	
890-1429-3	PH02B	Total/NA	Solid	8015 NM	
890-1429-4	PH02C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 9736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Soluble	Solid	DI Leach	
890-1429-2	PH02A	Soluble	Solid	DI Leach	
890-1429-3	PH02B	Soluble	Solid	DI Leach	
890-1429-4	PH02C	Soluble	Solid	DI Leach	
MB 880-9736/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9736/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9736/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1422-A-28-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1422-A-28-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 9838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1429-1	PH02	Soluble	Solid	300.0	9736
890-1429-2	PH02A	Soluble	Solid	300.0	9736
890-1429-3	PH02B	Soluble	Solid	300.0	9736
890-1429-4	PH02C	Soluble	Solid	300.0	9736
MB 880-9736/1-A	Method Blank	Soluble	Solid	300.0	9736
LCS 880-9736/2-A	Lab Control Sample	Soluble	Solid	300.0	9736

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

HPLC/IC (Continued)

Analysis Batch: 9838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-9736/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9736
890-1422-A-28-B MS	Matrix Spike	Soluble	Solid	300.0	9736
890-1422-A-28-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	9736

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

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Client Sample ID: PH02

Lab Sample ID: 890-1429-1

Date Collected: 10/08/21 12:08

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 19:58	MR	XEN MID
Total/NA	Prep	5035			4.98 g	5 mL	9747	10/18/21 14:01	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/19/21 14:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 15:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		1			9838	10/19/21 19:08	CH	XEN MID

Client Sample ID: PH02A

Lab Sample ID: 890-1429-2

Date Collected: 10/08/21 12:12

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 20:18	MR	XEN MID
Total/NA	Prep	5035			5.00 g	5 mL	9747	10/18/21 14:01	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 15:59	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		1			9838	10/19/21 19:14	CH	XEN MID

Client Sample ID: PH02B

Lab Sample ID: 890-1429-3

Date Collected: 10/08/21 12:15

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	9747	10/18/21 14:01	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/19/21 15:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 16:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		1			9838	10/19/21 19:19	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Client Sample ID: PH02C

Lab Sample ID: 890-1429-4

Date Collected: 10/08/21 12:18

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		200	5 mL	5 mL	10084	10/21/21 20:38	MR	XEN MID
Total/NA	Prep	5035			4.97 g	5 mL	9747	10/18/21 14:01	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/19/21 15:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/22/21 12:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	9736	10/18/21 13:58	CA	XEN MID
Soluble	Analysis	300.0		1			9838	10/19/21 19:25	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1429-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1429-1	PH02	Solid	10/08/21 12:08	10/14/21 12:12	1
890-1429-2	PH02A	Solid	10/08/21 12:12	10/14/21 12:12	2
890-1429-3	PH02B	Solid	10/08/21 12:15	10/14/21 12:12	3
890-1429-4	PH02C	Solid	10/08/21 12:18	10/14/21 12:12	4



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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 365-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill To: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com
Work Order Comments			
Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>			
State of Project:			
Reporting Level: <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/>			
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____			

Project Name:	Azores Fed Com 4H	Turn Around	
Project Number:	31402909.130	Rush:	<input checked="" type="checkbox"/>
Location:	Lea County	Due Date:	
Sampler's Name:	Fatima Smith		
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Temperature (°C):	2.4 / 2.2	Thermometer ID	TW-003
Received Inact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Correction Factor:	20.2
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Total Containers:	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
PH02	S	10/8/2021	1208	1'	1					
PH02A	S	10/8/2021	1212	2'	1					
PH02B	S	10/8/2021	1215	3'	1					
PH02C	S	10/8/2021	1218	4'	1					
<div>890-1429 Chain of Custody</div>										
TAT starts the day received by the lab, if received by 4:30pm										
Sample Comments										

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

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	2 <i>[Signature]</i>	10.14.21 1212	3 <i>[Signature]</i>	4 <i>[Signature]</i>	
5			6		

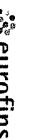
Eurofins Xanco Carlehad

4000 M10-1104

Cardboard NMA 88330

Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)				Sampler		Lab PM		Carrier Tracking No(s)		COC No:	
Client Contact: Shipping/Receiving				Phone		Kramer Jessica				890-463 1	
Company: Eurofins Xenco				E-Mail: jessica.kramer@eurofinsnet.com		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		State of Origin: New Mexico		Page: Page 1 of 1	
Address: 1211 W Florida Ave				Due Date Requested: 10/20/2021		Analysis Requested		Job #: 890-1429-1			
City: Midland				TAT Requested (days):							
State Zip: TX 79701											
Phone: 432-704-5440(Tel)				PO #:							
Email:				WO #:							
Project Name: Azores Fed Com 4H				Project #: 89000048							
Site:				SSOW#:							
Sample Identification - Client ID (Lab ID)				Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=Water, S=Solid, B=Tristim, A=Air)	
PH02 (890-1429-1)				10/6/21		12 08		Solid		Field Filtered Sample (Yes or No)	
PH02A (890-1429-2)				10/6/21		12 12		Solid		Perform MS/MSD (Yes or No)	
PH02C (890-1429-4)				10/6/21		12 18		Solid		8015MOD_NM/8015NM_S_Prep Full TPH	
										300_ORGFM_28D/DI_LEACH Chloride	
										8021B/5035FP_Calc BTEX	
										Total_BTEX_GCV	
										8015MOD_Calc	
										Total Number of containers	
										Special Instructions/Note.	
										Preservation Codes	
										A. HCL	
										B. NaOH	
										C. Zn Acetate	
										D. Nitric Acid	
										E. NaHSO4	
										F. MeOH	
										G. Ammonia	
										H. Ascorbic Acid	
										I. Ice	
										J. DI Water	
										K. EDTA	
										L. EDA	
										M. Hexane	
										N. None	
										O. AsNaO2	
										P. Na2OAS	
										Q. Na2SO3	
										R. Na2S2O3	
										S. H2SO4	
										T. TSP Dodecahydrate	
										U. Acetone	
										V. MCAA	
										W. pH 4-5	
										Z. other (specify)	
										Other:	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1429-1

SDG Number: 31402909.130

Login Number: 1429

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1429-1

SDG Number: 31402909.130

Login Number: 1429

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/15/21 12:19 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1430-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/21/2021 4:17:34 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1430-1
SDG: 31402909.130

Table of Contents

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

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Job ID: 890-1430-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1430-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9748 and analytical batch 880-9846 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH04B (890-1430-3), PH04C (890-1430-4) and (890-1428-A-1-E). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-9752 and analytical batch 880-9997 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Client Sample ID: PH04

Lab Sample ID: 890-1430-1

Date Collected: 10/08/21 13:58

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:39	1
Toluene	0.0189		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:39	1
Ethylbenzene	0.0117		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:39	1
m-Xylene & p-Xylene	0.0446		0.00398	mg/Kg		10/18/21 14:06	10/20/21 02:39	1
o-Xylene	0.0195		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:39	1
Xylenes, Total	0.0641		0.00398	mg/Kg		10/18/21 14:06	10/20/21 02:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	10/18/21 14:06	10/20/21 02:39	1
1,4-Difluorobenzene (Surr)	95		70 - 130	10/18/21 14:06	10/20/21 02:39	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0947		0.00398	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2200		49.9	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	67.3		49.9	mg/Kg		10/18/21 08:11	10/18/21 17:09	1
Diesel Range Organics (Over C10-C28)	1850		49.9	mg/Kg		10/18/21 08:11	10/18/21 17:09	1
Oil Range Organics (Over C28-C36)	279		49.9	mg/Kg		10/18/21 08:11	10/18/21 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	10/18/21 08:11	10/18/21 17:09	1
o-Terphenyl	101		70 - 130	10/18/21 08:11	10/18/21 17:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	469	F1	4.95	mg/Kg			10/20/21 14:35	1

Client Sample ID: PH04A

Lab Sample ID: 890-1430-2

Date Collected: 10/08/21 14:00

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:59	1
Toluene	0.0190		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:59	1
Ethylbenzene	0.0201		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:59	1
m-Xylene & p-Xylene	0.107		0.00398	mg/Kg		10/18/21 14:06	10/20/21 02:59	1
o-Xylene	0.0234		0.00199	mg/Kg		10/18/21 14:06	10/20/21 02:59	1
Xylenes, Total	0.130		0.00398	mg/Kg		10/18/21 14:06	10/20/21 02:59	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Client Sample ID: PH04A

Lab Sample ID: 890-1430-2

Date Collected: 10/08/21 14:00

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	10/18/21 14:06	10/20/21 02:59	1
1,4-Difluorobenzene (Surr)	98		70 - 130	10/18/21 14:06	10/20/21 02:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.170		0.00398	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2910		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	119		49.8	mg/Kg		10/18/21 08:11	10/18/21 17:30	1
Diesel Range Organics (Over C10-C28)	2440		49.8	mg/Kg		10/18/21 08:11	10/18/21 17:30	1
Oil Range Organics (Over C28-C36)	348		49.8	mg/Kg		10/18/21 08:11	10/18/21 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			10/18/21 08:11	10/18/21 17:30	1
o-Terphenyl	106		70 - 130			10/18/21 08:11	10/18/21 17:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200		5.03	mg/Kg			10/20/21 14:57	1

Client Sample ID: PH04B

Lab Sample ID: 890-1430-3

Date Collected: 10/08/21 14:01

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		10/18/21 14:06	10/20/21 03:20	1
Toluene	0.0369		0.00199	mg/Kg		10/18/21 14:06	10/20/21 03:20	1
Ethylbenzene	0.0767		0.00199	mg/Kg		10/18/21 14:06	10/20/21 03:20	1
m-Xylene & p-Xylene	0.590		0.00398	mg/Kg		10/18/21 14:06	10/20/21 03:20	1
o-Xylene	0.376		0.00199	mg/Kg		10/18/21 14:06	10/20/21 03:20	1
Xylenes, Total	0.966		0.00398	mg/Kg		10/18/21 14:06	10/20/21 03:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	249	S1+	70 - 130			10/18/21 14:06	10/20/21 03:20	1
1,4-Difluorobenzene (Surr)	99		70 - 130			10/18/21 14:06	10/20/21 03:20	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.08		0.00398	mg/Kg			10/21/21 17:04	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Client Sample ID: PH04B

Lab Sample ID: 890-1430-3

Date Collected: 10/08/21 14:01

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3260		49.9	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	392		49.9	mg/Kg		10/18/21 08:11	10/18/21 18:12	1
Diesel Range Organics (Over C10-C28)	2530		49.9	mg/Kg		10/18/21 08:11	10/18/21 18:12	1
Oil Range Organics (Over C28-C36)	338		49.9	mg/Kg		10/18/21 08:11	10/18/21 18:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			10/18/21 08:11	10/18/21 18:12	1
o-Terphenyl	102		70 - 130			10/18/21 08:11	10/18/21 18:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	732		5.03	mg/Kg			10/20/21 15:04	1

Client Sample ID: PH04C

Lab Sample ID: 890-1430-4

Date Collected: 10/08/21 14:03

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 03:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 03:40	1
Ethylbenzene	0.0114		0.00200	mg/Kg		10/18/21 14:06	10/20/21 03:40	1
m-Xylene & p-Xylene	0.0600		0.00400	mg/Kg		10/18/21 14:06	10/20/21 03:40	1
o-Xylene	0.0351		0.00200	mg/Kg		10/18/21 14:06	10/20/21 03:40	1
Xylenes, Total	0.0951		0.00400	mg/Kg		10/18/21 14:06	10/20/21 03:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	191	S1+	70 - 130			10/18/21 14:06	10/20/21 03:40	1
1,4-Difluorobenzene (Surr)	100		70 - 130			10/18/21 14:06	10/20/21 03:40	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.107		0.00400	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4550		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	177		49.8	mg/Kg		10/18/21 08:11	10/18/21 18:33	1
Diesel Range Organics (Over C10-C28)	3840		49.8	mg/Kg		10/18/21 08:11	10/18/21 18:33	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Client Sample ID: PH04C

Lab Sample ID: 890-1430-4

Date Collected: 10/08/21 14:03

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	529		49.8	mg/Kg		10/18/21 08:11	10/18/21 18:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			10/18/21 08:11	10/18/21 18:33	1
o-Terphenyl	110		70 - 130			10/18/21 08:11	10/18/21 18:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.0		5.01	mg/Kg			10/20/21 15:11	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1428-A-1-C MS	Matrix Spike	98	107
890-1428-A-1-D MSD	Matrix Spike Duplicate	107	105
890-1430-1	PH04	124	95
890-1430-2	PH04A	107	98
890-1430-3	PH04B	249 S1+	99
890-1430-4	PH04C	191 S1+	100
LCS 880-9748/1-A	Lab Control Sample	103	110
LCSD 880-9748/2-A	Lab Control Sample Dup	95	108
MB 880-9747/5-A	Method Blank	109	93
MB 880-9748/5-A	Method Blank	114	104
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1430-1	PH04	97	101
890-1430-2	PH04A	109	106
890-1430-3	PH04B	112	102
890-1430-4	PH04C	121	110
890-1441-A-1-D MSD	Matrix Spike Duplicate	109	110
890-1441-A-1-E MS	Matrix Spike	109	112
LCS 880-9628/2-A	Lab Control Sample	92	95
LCSD 880-9628/3-A	Lab Control Sample Dup	89	93
MB 880-9628/1-A	Method Blank	112	130
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9747/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9747

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	10/18/21 14:01	10/19/21 14:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:01	10/19/21 14:25	1

Lab Sample ID: MB 880-9748/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9748

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	10/18/21 14:06	10/20/21 01:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/18/21 14:06	10/20/21 01:16	1

Lab Sample ID: LCS 880-9748/1-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1040		mg/Kg		104	70 - 130
Toluene	0.100	0.08958		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08535		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1765		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09487		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09387		mg/Kg		94	70 - 130	10	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.08336		mg/Kg		83	70 - 130	7	35
Ethylbenzene	0.100	0.07798		mg/Kg		78	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1605		mg/Kg		80	70 - 130	9	35
o-Xylene	0.100	0.08265		mg/Kg		83	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-1428-A-1-C MS

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0165		0.0996	0.09876		mg/Kg		83	70 - 130
Toluene	0.107	F1	0.0996	0.08737	F1	mg/Kg		-20	70 - 130
Ethylbenzene	0.181	F1	0.0996	0.08507	F1	mg/Kg		-96	70 - 130
m-Xylene & p-Xylene	0.0164		0.199	0.1725		mg/Kg		78	70 - 130
o-Xylene	2.38	E	0.0996	0.08738	4	mg/Kg		-2301	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-1428-A-1-D MSD

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0165		0.100	0.08998		mg/Kg		73	70 - 130	9	35
Toluene	0.107	F1	0.100	0.08531	F1	mg/Kg		-22	70 - 130	2	35
Ethylbenzene	0.181	F1	0.100	0.08445	F1	mg/Kg		-96	70 - 130	1	35
m-Xylene & p-Xylene	0.0164		0.200	0.1755		mg/Kg		80	70 - 130	2	35
o-Xylene	2.38	E	0.100	0.08882	4	mg/Kg		-2291	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-9628/1-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9628

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

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

Lab Sample ID: MB 880-9628/1-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9628

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 08:11	10/18/21 11:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			10/18/21 08:11	10/18/21 11:23	1
o-Terphenyl	130		70 - 130			10/18/21 08:11	10/18/21 11:23	1

Lab Sample ID: LCS 880-9628/2-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	830.0		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	1000	925.1		mg/Kg		93	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	92		70 - 130				
o-Terphenyl	95		70 - 130				

Lab Sample ID: LCSD 880-9628/3-A

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	778.9		mg/Kg		78	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	929.8		mg/Kg		93	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	89		70 - 130						
o-Terphenyl	93		70 - 130						

Lab Sample ID: 890-1441-A-1-D MSD

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9628

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	110		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

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

Lab Sample ID: 890-1441-A-1-E MS

Matrix: Solid

Analysis Batch: 9623

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9628

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	882.7		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1055		mg/Kg		103	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	109		70 - 130						
o-Terphenyl	112		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9752/1-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/20/21 14:14	1

Lab Sample ID: LCS 880-9752/2-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-9752/3-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	229.5		mg/Kg		92	90 - 110	1	20

Lab Sample ID: 890-1430-1 MS

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: PH04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	469	F1	248	662.6	F1	mg/Kg		78	90 - 110

Lab Sample ID: 890-1430-1 MSD

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: PH04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	469	F1	248	699.2		mg/Kg		93	90 - 110	5	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

GC VOA

Prep Batch: 9747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-9747/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 9748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Total/NA	Solid	5035	
890-1430-2	PH04A	Total/NA	Solid	5035	
890-1430-3	PH04B	Total/NA	Solid	5035	
890-1430-4	PH04C	Total/NA	Solid	5035	
MB 880-9748/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1428-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1428-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 9846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Total/NA	Solid	8021B	9748
890-1430-2	PH04A	Total/NA	Solid	8021B	9748
890-1430-3	PH04B	Total/NA	Solid	8021B	9748
890-1430-4	PH04C	Total/NA	Solid	8021B	9748
MB 880-9747/5-A	Method Blank	Total/NA	Solid	8021B	9747
MB 880-9748/5-A	Method Blank	Total/NA	Solid	8021B	9748
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	8021B	9748
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9748
890-1428-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	9748
890-1428-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9748

Analysis Batch: 10147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Total/NA	Solid	Total BTEX	
890-1430-2	PH04A	Total/NA	Solid	Total BTEX	
890-1430-3	PH04B	Total/NA	Solid	Total BTEX	
890-1430-4	PH04C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 9623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Total/NA	Solid	8015B NM	9628
890-1430-2	PH04A	Total/NA	Solid	8015B NM	9628
890-1430-3	PH04B	Total/NA	Solid	8015B NM	9628
890-1430-4	PH04C	Total/NA	Solid	8015B NM	9628
MB 880-9628/1-A	Method Blank	Total/NA	Solid	8015B NM	9628
LCS 880-9628/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9628
LCSD 880-9628/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9628
890-1441-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9628
890-1441-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	9628

Prep Batch: 9628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

GC Semi VOA (Continued)

Prep Batch: 9628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-2	PH04A	Total/NA	Solid	8015NM Prep	
890-1430-3	PH04B	Total/NA	Solid	8015NM Prep	
890-1430-4	PH04C	Total/NA	Solid	8015NM Prep	
MB 880-9628/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9628/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9628/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1441-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
890-1441-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Total/NA	Solid	8015 NM	
890-1430-2	PH04A	Total/NA	Solid	8015 NM	
890-1430-3	PH04B	Total/NA	Solid	8015 NM	
890-1430-4	PH04C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 9752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Soluble	Solid	DI Leach	
890-1430-2	PH04A	Soluble	Solid	DI Leach	
890-1430-3	PH04B	Soluble	Solid	DI Leach	
890-1430-4	PH04C	Soluble	Solid	DI Leach	
MB 880-9752/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9752/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9752/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1430-1 MS	PH04	Soluble	Solid	DI Leach	
890-1430-1 MSD	PH04	Soluble	Solid	DI Leach	

Analysis Batch: 9997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1430-1	PH04	Soluble	Solid	300.0	9752
890-1430-2	PH04A	Soluble	Solid	300.0	9752
890-1430-3	PH04B	Soluble	Solid	300.0	9752
890-1430-4	PH04C	Soluble	Solid	300.0	9752
MB 880-9752/1-A	Method Blank	Soluble	Solid	300.0	9752
LCS 880-9752/2-A	Lab Control Sample	Soluble	Solid	300.0	9752
LCSD 880-9752/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9752
890-1430-1 MS	PH04	Soluble	Solid	300.0	9752
890-1430-1 MSD	PH04	Soluble	Solid	300.0	9752

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Client Sample ID: PH04

Lab Sample ID: 890-1430-1

Date Collected: 10/08/21 13:58

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 02:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 17:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 14:35	CH	XEN MID

Client Sample ID: PH04A

Lab Sample ID: 890-1430-2

Date Collected: 10/08/21 14:00

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 02:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 14:57	CH	XEN MID

Client Sample ID: PH04B

Lab Sample ID: 890-1430-3

Date Collected: 10/08/21 14:01

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 03:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 18:12	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 15:04	CH	XEN MID

Client Sample ID: PH04C

Lab Sample ID: 890-1430-4

Date Collected: 10/08/21 14:03

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 03:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Client Sample ID: PH04C
Date Collected: 10/08/21 14:03
Date Received: 10/14/21 12:12

Lab Sample ID: 890-1430-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9628	10/18/21 08:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9623	10/18/21 18:33	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 15:11	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1430-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1430-1	PH04	Solid	10/08/21 13:58	10/14/21 12:12	1
890-1430-2	PH04A	Solid	10/08/21 14:00	10/14/21 12:12	2
890-1430-3	PH04B	Solid	10/08/21 14:01	10/14/21 12:12	3
890-1430-4	PH04C	Solid	10/08/21 14:03	10/14/21 12:12	4



Chain of Custody

Work Order No: _____

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

www.xenco.com

Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com

Work Order Comments Program: UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: _____ Reporting Level <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
--	--

Project Name:	Azores Fed Com 4H	Turn Around	
Project Number:	31402909.130	Route:	<input checked="" type="checkbox"/>
Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
SAMPLE RECEIPT Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wet Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Temperature (°C): 2.4/2.2 Thermometer ID: MW-003 Received Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Correction Factor: 20.2 Cooler Custody Seals: Yes No N/A Sample Custody Seals: Yes No N/A Total Containers:			



890-1430 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
PH04	S	10/8/2021	1358	1'	1					
PH04A	S	10/8/2021	1400	2'	1					
PH04B	S	10/8/2021	1401	3'	1					
PH04C	S	10/8/2021	1403	4'	1					
<i>[Signature]</i>										

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010- 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	10.14.21 1212			

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Chain of Custody Record



Environment Testing

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

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1430-1

SDG Number: 31402909.130

Login Number: 1430

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1430-1

SDG Number: 31402909.130

Login Number: 1430

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/15/21 12:19 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1431-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/22/2021 4:12:27 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1431-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	17
Lab Chronicle	20
Certification Summary	22
Method Summary	23
Sample Summary	24
Chain of Custody	25
Receipt Checklists	27

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Eurofins Xenco, Carlsbad

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Job ID: 890-1431-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1431-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9748 and analytical batch 880-9846 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH05 (890-1431-1), PH05A (890-1431-2), PH05B (890-1431-3), PH05C (890-1431-4) and (890-1428-A-1-E). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9911 and analytical batch 880-10084 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH05A (890-1431-2) and (890-1434-A-1-D). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-1431-A-1-B MS) and (890-1431-A-1-C MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH05B (890-1431-3), (890-1428-A-3-C), (890-1428-A-3-D MS) and (890-1428-A-3-E MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-9752 and analytical batch 880-9997 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Client Sample ID: PH05

Lab Sample ID: 890-1431-1

Date Collected: 10/08/21 15:12

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00313		0.00198	mg/Kg		10/18/21 14:06	10/20/21 04:01	1
Toluene	2.64		0.199	mg/Kg		10/19/21 15:07	10/21/21 20:59	100
Ethylbenzene	3.88		0.199	mg/Kg		10/19/21 15:07	10/21/21 20:59	100
m-Xylene & p-Xylene	16.4		0.398	mg/Kg		10/19/21 15:07	10/21/21 20:59	100
o-Xylene	7.37		0.199	mg/Kg		10/19/21 15:07	10/21/21 20:59	100
Xylenes, Total	23.8		0.398	mg/Kg		10/19/21 15:07	10/21/21 20:59	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	612	S1+	70 - 130	10/18/21 14:06	10/20/21 04:01	1
1,4-Difluorobenzene (Surr)	78		70 - 130	10/18/21 14:06	10/20/21 04:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	30.3		0.398	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5270		50.0	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	855		50.0	mg/Kg		10/18/21 07:49	10/18/21 12:25	1
Diesel Range Organics (Over C10-C28)	4410		50.0	mg/Kg		10/18/21 07:49	10/18/21 12:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	10/18/21 07:49	10/18/21 12:25	1
o-Terphenyl	87		70 - 130	10/18/21 07:49	10/18/21 12:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.3		4.95	mg/Kg			10/20/21 15:18	1

Client Sample ID: PH05A

Lab Sample ID: 890-1431-2

Date Collected: 10/08/21 15:14

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0231		0.00202	mg/Kg		10/18/21 14:06	10/20/21 04:21	1
Toluene	2.75		0.200	mg/Kg		10/19/21 15:07	10/21/21 21:19	100
Ethylbenzene	3.97		0.200	mg/Kg		10/19/21 15:07	10/21/21 21:19	100
m-Xylene & p-Xylene	9.62		0.401	mg/Kg		10/19/21 15:07	10/21/21 21:19	100
o-Xylene	5.11		0.200	mg/Kg		10/19/21 15:07	10/21/21 21:19	100
Xylenes, Total	14.7		0.401	mg/Kg		10/19/21 15:07	10/21/21 21:19	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	740	S1+	70 - 130	10/18/21 14:06	10/20/21 04:21	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Client Sample ID: PH05A

Lab Sample ID: 890-1431-2

Date Collected: 10/08/21 15:14

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	120		70 - 130	10/18/21 14:06	10/20/21 04:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	21.5		0.401	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4900		50.0	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	740		50.0	mg/Kg		10/18/21 07:49	10/18/21 13:53	1
Diesel Range Organics (Over C10-C28)	4160		50.0	mg/Kg		10/18/21 07:49	10/18/21 13:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 13:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			10/18/21 07:49	10/18/21 13:53	1
o-Terphenyl	82		70 - 130			10/18/21 07:49	10/18/21 13:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.04	mg/Kg			10/20/21 15:39	1

Client Sample ID: PH05B

Lab Sample ID: 890-1431-3

Date Collected: 10/08/21 15:17

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.187		0.00200	mg/Kg		10/18/21 14:06	10/20/21 04:41	1
Toluene	6.89		0.201	mg/Kg		10/19/21 15:07	10/21/21 21:40	100
Ethylbenzene	5.31		0.201	mg/Kg		10/19/21 15:07	10/21/21 21:40	100
m-Xylene & p-Xylene	21.6		0.402	mg/Kg		10/19/21 15:07	10/21/21 21:40	100
o-Xylene	9.34		0.201	mg/Kg		10/19/21 15:07	10/21/21 21:40	100
Xylenes, Total	30.9		0.402	mg/Kg		10/19/21 15:07	10/21/21 21:40	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	763	S1+	70 - 130	10/18/21 14:06	10/20/21 04:41	1
1,4-Difluorobenzene (Surr)	101		70 - 130	10/18/21 14:06	10/20/21 04:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	43.3		0.402	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	8700		50.0	mg/Kg			10/20/21 13:58	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Client Sample ID: PH05B

Lab Sample ID: 890-1431-3

Date Collected: 10/08/21 15:17

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1320		50.0	mg/Kg		10/19/21 09:45	10/19/21 13:06	1
Diesel Range Organics (Over C10-C28)	6380		50.0	mg/Kg		10/19/21 09:45	10/19/21 13:06	1
Oil Range Organics (Over C28-C36)	1000		50.0	mg/Kg		10/19/21 09:45	10/19/21 13:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130			10/19/21 09:45	10/19/21 13:06	1
o-Terphenyl	122		70 - 130			10/19/21 09:45	10/19/21 13:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	321		4.99	mg/Kg			10/20/21 15:47	1

Client Sample ID: PH05C

Lab Sample ID: 890-1431-4

Date Collected: 10/08/21 15:23

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00510		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:04	1
Toluene	0.0392		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:04	1
Ethylbenzene	0.0748		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:04	1
m-Xylene & p-Xylene	0.131		0.00402	mg/Kg		10/18/21 14:06	10/20/21 06:04	1
o-Xylene	0.348		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:04	1
Xylenes, Total	0.479		0.00402	mg/Kg		10/18/21 14:06	10/20/21 06:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	297	S1+	70 - 130			10/18/21 14:06	10/20/21 06:04	1
1,4-Difluorobenzene (Surr)	109		70 - 130			10/18/21 14:06	10/20/21 06:04	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.598		0.00402	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6140		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	369		49.8	mg/Kg		10/18/21 07:49	10/18/21 14:22	1
Diesel Range Organics (Over C10-C28)	5770		49.8	mg/Kg		10/18/21 07:49	10/18/21 14:22	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/18/21 07:49	10/18/21 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			10/18/21 07:49	10/18/21 14:22	1
o-Terphenyl	73		70 - 130			10/18/21 07:49	10/18/21 14:22	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Client Sample ID: PH05C
Date Collected: 10/08/21 15:23
Date Received: 10/14/21 12:12
Sample Depth: 4

Lab Sample ID: 890-1431-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	187		4.97	mg/Kg			10/20/21 15:54	1	

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1428-A-1-C MS	Matrix Spike	98	107
890-1428-A-1-D MSD	Matrix Spike Duplicate	107	105
890-1431-1	PH05	612 S1+	78
890-1431-2	PH05A	740 S1+	120
890-1431-3	PH05B	763 S1+	101
890-1431-4	PH05C	297 S1+	109
890-1434-A-1-B MS	Matrix Spike	136 S1+	125
890-1434-A-1-C MSD	Matrix Spike Duplicate	96	92
LCS 880-9748/1-A	Lab Control Sample	103	110
LCS 880-9911/1-A	Lab Control Sample	88	99
LCSD 880-9748/2-A	Lab Control Sample Dup	95	108
LCSD 880-9911/2-A	Lab Control Sample Dup	88	102
MB 880-9747/5-A	Method Blank	109	93
MB 880-9748/5-A	Method Blank	114	104
MB 880-9911/5-A	Method Blank	100	104
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1428-A-3-D MS	Matrix Spike	312 S1+	215 S1+
890-1428-A-3-E MSD	Matrix Spike Duplicate	268 S1+	203 S1+
890-1431-1	PH05	110	87
890-1431-1 MS	PH05	113	58 S1-
890-1431-1 MSD	PH05	121	65 S1-
890-1431-2	PH05A	105	82
890-1431-3	PH05B	138 S1+	122
890-1431-4	PH05C	100	73
LCS 880-9627/2-A	Lab Control Sample	82	92
LCS 880-9834/2-A	Lab Control Sample	94	96
LCSD 880-9627/3-A	Lab Control Sample Dup	84	93
LCSD 880-9834/3-A	Lab Control Sample Dup	86	89
MB 880-9627/1-A	Method Blank	91	109
MB 880-9834/1-A	Method Blank	101	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9747/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9747

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	10/18/21 14:01	10/19/21 14:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:01	10/19/21 14:25	1

Lab Sample ID: MB 880-9748/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9748

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	10/18/21 14:06	10/20/21 01:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/18/21 14:06	10/20/21 01:16	1

Lab Sample ID: LCS 880-9748/1-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1040		mg/Kg		104	70 - 130
Toluene	0.100	0.08958		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08535		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1765		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09487		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09387		mg/Kg		94	70 - 130	10	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Toluene	0.100	0.08336		mg/Kg		83	70 - 130	7	35
Ethylbenzene	0.100	0.07798		mg/Kg		78	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1605		mg/Kg		80	70 - 130	9	35
o-Xylene	0.100	0.08265		mg/Kg		83	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-1428-A-1-C MS

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.0165		0.0996	0.09876		mg/Kg		83	70 - 130		
Toluene	0.107	F1	0.0996	0.08737	F1	mg/Kg		-20	70 - 130		
Ethylbenzene	0.181	F1	0.0996	0.08507	F1	mg/Kg		-96	70 - 130		
m-Xylene & p-Xylene	0.0164		0.199	0.1725		mg/Kg		78	70 - 130		
o-Xylene	2.38	E	0.0996	0.08738	4	mg/Kg		-2301	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-1428-A-1-D MSD

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.0165		0.100	0.08998		mg/Kg		73	70 - 130	9	35
Toluene	0.107	F1	0.100	0.08531	F1	mg/Kg		-22	70 - 130	2	35
Ethylbenzene	0.181	F1	0.100	0.08445	F1	mg/Kg		-96	70 - 130	1	35
m-Xylene & p-Xylene	0.0164		0.200	0.1755		mg/Kg		80	70 - 130	2	35
o-Xylene	2.38	E	0.100	0.08882	4	mg/Kg		-2291	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/19/21 15:07	10/21/21 13:59	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/19/21 15:07	10/21/21 13:59	1

Lab Sample ID: LCS 880-9911/1-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1034		mg/Kg		103	70 - 130
Toluene	0.100	0.1080		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1174		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.2275		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1186		mg/Kg		119	70 - 130

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

Lab Sample ID: LCSD 880-9911/2-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1055		mg/Kg		105	70 - 130	2	35
Toluene	0.100	0.1109		mg/Kg		111	70 - 130	3	35
Ethylbenzene	0.100	0.1167		mg/Kg		117	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2266		mg/Kg		113	70 - 130	0	35
o-Xylene	0.100	0.1189		mg/Kg		119	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.09342		mg/Kg		94	70 - 130
Toluene	<0.00199	U	0.0990	0.1154		mg/Kg		116	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1197		mg/Kg		121	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2190		mg/Kg		111	70 - 130
o-Xylene	<0.00199	U F1	0.0990	0.1308	F1	mg/Kg		131	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

Lab Sample ID: 890-1434-A-1-C MSD

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07836		mg/Kg		78	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09275		mg/Kg		92	70 - 130	22	35
Ethylbenzene	<0.00199	U	0.100	0.09852		mg/Kg		99	70 - 130	19	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1818		mg/Kg		91	70 - 130	19	35
o-Xylene	<0.00199	U F1	0.100	0.09965		mg/Kg		99	70 - 130	27	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-9627/1-A

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9627

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 11:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 11:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 11:23	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	91		70 - 130	10/18/21 07:49	10/18/21 11:23	1		
o-Terphenyl	109		70 - 130	10/18/21 07:49	10/18/21 11:23	1		

Lab Sample ID: LCS 880-9627/2-A

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	761.6		mg/Kg		76	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	774.5		mg/Kg		77	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	92		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9627/3-A

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	798.9		mg/Kg		80	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	813.4		mg/Kg		81	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	84		70 - 130						
o-Terphenyl	93		70 - 130						

Lab Sample ID: 890-1431-1 MS

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: PH05

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	855		997	1649		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	4410		997	4685	4	mg/Kg		28	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	58	S1-	70 - 130								

Lab Sample ID: 890-1431-1 MSD

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: PH05

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	855		998	1689		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	4410		998	5064	4	mg/Kg		66	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	121		70 - 130								
o-Terphenyl	65	S1-	70 - 130								

Lab Sample ID: MB 880-9834/1-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9834

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Lab Sample ID: MB 880-9834/1-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9834

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/19/21 09:45	10/19/21 10:56	1
o-Terphenyl	116		70 - 130	10/19/21 09:45	10/19/21 10:56	1

Lab Sample ID: LCS 880-9834/2-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9834

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	822.9		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1015		mg/Kg		101	70 - 130		

	LCS	LCS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	94		70 - 130			
o-Terphenyl	96		70 - 130			

Lab Sample ID: LCSD 880-9834/3-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9834

			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	825.7		mg/Kg		83	70 - 130	0	20	
Diesel Range Organics (Over C10-C28)			1000	965.7		mg/Kg		97	70 - 130	5	20	

	LCSD	LCSD				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	86		70 - 130			
o-Terphenyl	89		70 - 130			

Lab Sample ID: 890-1428-A-3-D MS

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9834

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	3310		998	4234		mg/Kg		92	70 - 130		

	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	312	S1+	70 - 130			
o-Terphenyl	215	S1+	70 - 130			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Lab Sample ID: 890-1428-A-3-E MSD

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9834

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	3310		1000	4491		mg/Kg		118	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	268	S1+	70 - 130								
o-Terphenyl	203	S1+	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9752/1-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/20/21 14:14	1

Lab Sample ID: LCS 880-9752/2-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	231.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-9752/3-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	229.5		mg/Kg		92	90 - 110	1	20

Lab Sample ID: 890-1430-A-1-E MS

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	469	F1	248	662.6	F1	mg/Kg		78	90 - 110

Lab Sample ID: 890-1430-A-1-F MSD

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	469	F1	248	699.2		mg/Kg		93	90 - 110	5	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

GC VOA

Prep Batch: 9747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-9747/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 9748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	5035	
890-1431-2	PH05A	Total/NA	Solid	5035	
890-1431-3	PH05B	Total/NA	Solid	5035	
890-1431-4	PH05C	Total/NA	Solid	5035	
MB 880-9748/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1428-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1428-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 9846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	8021B	9748
890-1431-2	PH05A	Total/NA	Solid	8021B	9748
890-1431-3	PH05B	Total/NA	Solid	8021B	9748
890-1431-4	PH05C	Total/NA	Solid	8021B	9748
MB 880-9747/5-A	Method Blank	Total/NA	Solid	8021B	9747
MB 880-9748/5-A	Method Blank	Total/NA	Solid	8021B	9748
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	8021B	9748
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9748
890-1428-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	9748
890-1428-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9748

Prep Batch: 9911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	5035	
890-1431-2	PH05A	Total/NA	Solid	5035	
890-1431-3	PH05B	Total/NA	Solid	5035	
MB 880-9911/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	8021B	9911
890-1431-2	PH05A	Total/NA	Solid	8021B	9911
890-1431-3	PH05B	Total/NA	Solid	8021B	9911
MB 880-9911/5-A	Method Blank	Total/NA	Solid	8021B	9911
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	8021B	9911
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9911
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	9911
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9911

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

GC VOA

Analysis Batch: 10147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	Total BTEX	
890-1431-2	PH05A	Total/NA	Solid	Total BTEX	
890-1431-3	PH05B	Total/NA	Solid	Total BTEX	
890-1431-4	PH05C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 9621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	8015B NM	9627
890-1431-2	PH05A	Total/NA	Solid	8015B NM	9627
890-1431-4	PH05C	Total/NA	Solid	8015B NM	9627
MB 880-9627/1-A	Method Blank	Total/NA	Solid	8015B NM	9627
LCS 880-9627/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9627
LCSD 880-9627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9627
890-1431-1 MS	PH05	Total/NA	Solid	8015B NM	9627
890-1431-1 MSD	PH05	Total/NA	Solid	8015B NM	9627

Prep Batch: 9627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	8015NM Prep	
890-1431-2	PH05A	Total/NA	Solid	8015NM Prep	
890-1431-4	PH05C	Total/NA	Solid	8015NM Prep	
MB 880-9627/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9627/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1431-1 MS	PH05	Total/NA	Solid	8015NM Prep	
890-1431-1 MSD	PH05	Total/NA	Solid	8015NM Prep	

Analysis Batch: 9827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-3	PH05B	Total/NA	Solid	8015B NM	9834
MB 880-9834/1-A	Method Blank	Total/NA	Solid	8015B NM	9834
LCS 880-9834/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9834
LCSD 880-9834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9834
890-1428-A-3-D MS	Matrix Spike	Total/NA	Solid	8015B NM	9834
890-1428-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9834

Prep Batch: 9834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-3	PH05B	Total/NA	Solid	8015NM Prep	
MB 880-9834/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9834/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1428-A-3-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1428-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Total/NA	Solid	8015 NM	
890-1431-2	PH05A	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

GC Semi VOA (Continued)

Analysis Batch: 10003 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-3	PH05B	Total/NA	Solid	8015 NM	
890-1431-4	PH05C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 9752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Soluble	Solid	DI Leach	
890-1431-2	PH05A	Soluble	Solid	DI Leach	
890-1431-3	PH05B	Soluble	Solid	DI Leach	
890-1431-4	PH05C	Soluble	Solid	DI Leach	
MB 880-9752/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9752/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9752/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1430-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1430-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 9997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1431-1	PH05	Soluble	Solid	300.0	9752
890-1431-2	PH05A	Soluble	Solid	300.0	9752
890-1431-3	PH05B	Soluble	Solid	300.0	9752
890-1431-4	PH05C	Soluble	Solid	300.0	9752
MB 880-9752/1-A	Method Blank	Soluble	Solid	300.0	9752
LCS 880-9752/2-A	Lab Control Sample	Soluble	Solid	300.0	9752
LCSD 880-9752/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9752
890-1430-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	9752
890-1430-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	9752

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Client Sample ID: PH05

Lab Sample ID: 890-1431-1

Date Collected: 10/08/21 15:12

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 20:59	MR	XEN MID
Total/NA	Prep	5035			5.05 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 04:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9627	10/18/21 07:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9621	10/18/21 12:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 15:18	CH	XEN MID

Client Sample ID: PH05A

Lab Sample ID: 890-1431-2

Date Collected: 10/08/21 15:14

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 21:19	MR	XEN MID
Total/NA	Prep	5035			4.96 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 04:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	9627	10/18/21 07:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9621	10/18/21 13:53	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 15:39	CH	XEN MID

Client Sample ID: PH05B

Lab Sample ID: 890-1431-3

Date Collected: 10/08/21 15:17

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 21:40	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 04:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9834	10/19/21 09:45	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			9827	10/19/21 13:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 15:47	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Client Sample ID: PH05C

Lab Sample ID: 890-1431-4

Date Collected: 10/08/21 15:23

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 06:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9627	10/18/21 07:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9621	10/18/21 14:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 15:54	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1431-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1431-1	PH05	Solid	10/08/21 15:12	10/14/21 12:12	1
890-1431-2	PH05A	Solid	10/08/21 15:14	10/14/21 12:12	2
890-1431-3	PH05B	Solid	10/08/21 15:17	10/14/21 12:12	3
890-1431-4	PH05C	Solid	10/08/21 15:23	10/14/21 12:12	4



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 505-3334
Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (675) 392-7550, Carlsbad, NM (575) 988-3159, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:		Kalei Jennings	Bill to: (if different)	
Company Name:		WSP USA	Company Name:	
Address:		3300 North A Street	Address:	
City, State ZIP:		Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com	
Work Order Comments				
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfield <input type="checkbox"/> RR <input type="checkbox"/> Superfund <input type="checkbox"/>				
State of Project:				
Reporting Level <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/>				
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:				

Project Name:	Azores Fed Com 4H	Turn Around	ANALYSIS REQUEST								Work Order Notes	
Project Number:	31402909.130	Routine:										
Location:	Lea County	Rush:										
Sampler's Name:	Fatima Smith	Due Date:										
SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No						
Temperature (°C):	2.4/2.2	Thermometer ID										
Received Intact:	Yes No											
Cooler Custody Seals:	Yes No N/A	Correction Factor:						-0.7				
Sample Custody Seals:	Yes No N/A	Total Containers:										
Number of Containers												
(EPA 8015)												
(EPA 0=8021)												
(EPA 300.0)												
 890-1431 Chain of Custody												
TAT starts the day received by the lab, if received by 4:30pm												

[illegible]

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6040. 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U** **1631 / 245.1 / 7470 / 7471 : Hg**

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Jack</i>	<i>Joe</i>	10-14-21 12:12	2		
3			4		
5			6		

Revised Date 07/15/2019

Eurofins Xenco, Carlsbad

1089 N Canal St.
Carlsbad NM 88220

Phone 575-988-3199 Fax. 575-988-3199

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1431-1

SDG Number: 31402909.130

Login Number: 1431

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1431-1

SDG Number: 31402909.130

Login Number: 1431

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/15/21 12:19 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1432-1

Laboratory Sample Delivery Group: 31402909.130

Client Project/Site: Azores Fed Com 4H

For:

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

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
10/22/2021 4:12:28 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Laboratory Job ID: 890-1432-1
SDG: 31402909.130

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	18
Lab Chronicle	21
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26
Receipt Checklists	28

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Eurofins Xenco, Carlsbad

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Job ID: 890-1432-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1432-1****Receipt**

The samples were received on 10/14/2021 12:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9748 and analytical batch 880-9846 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-1432-1), PH01A (890-1432-2), PH01B (890-1432-3), PH01C (890-1432-4) and (890-1428-A-1-E). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9911 and analytical batch 880-10084 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-1434-A-1-D). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-1431-A-1-B MS) and (890-1431-A-1-C MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-1428-A-3-C), (890-1428-A-3-D MS) and (890-1428-A-3-E MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-9752 and analytical batch 880-9997 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Client Sample ID: PH01

Lab Sample ID: 890-1432-1

Date Collected: 10/08/21 09:42

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.251		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:24	1
Toluene	0.251		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:24	1
Ethylbenzene	0.297		0.00201	mg/Kg		10/18/21 14:06	10/20/21 06:24	1
m-Xylene & p-Xylene	0.114		0.00402	mg/Kg		10/18/21 14:06	10/20/21 06:24	1
o-Xylene	8.55		0.201	mg/Kg		10/19/21 15:07	10/21/21 22:00	100
Xylenes, Total	18.1		0.402	mg/Kg		10/19/21 15:07	10/21/21 22:00	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	936	S1+	70 - 130	10/18/21 14:06	10/20/21 06:24	1
1,4-Difluorobenzene (Surr)	42	S1-	70 - 130	10/18/21 14:06	10/20/21 06:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	9.46		0.00402	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5620		49.9	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	915		49.9	mg/Kg		10/18/21 07:49	10/18/21 14:52	1
Diesel Range Organics (Over C10-C28)	4700		49.9	mg/Kg		10/18/21 07:49	10/18/21 14:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/18/21 07:49	10/18/21 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	10/18/21 07:49	10/18/21 14:52	1
o-Terphenyl	80		70 - 130	10/18/21 07:49	10/18/21 14:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	428		5.05	mg/Kg			10/20/21 16:01	1

Client Sample ID: PH01A

Lab Sample ID: 890-1432-2

Date Collected: 10/08/21 09:48

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0303		0.00200	mg/Kg		10/18/21 14:06	10/20/21 06:44	1
Toluene	2.49		0.200	mg/Kg		10/19/21 15:07	10/21/21 22:20	100
Ethylbenzene	0.367		0.00200	mg/Kg		10/18/21 14:06	10/20/21 06:44	1
m-Xylene & p-Xylene	0.0787		0.00399	mg/Kg		10/18/21 14:06	10/20/21 06:44	1
o-Xylene	7.90		0.200	mg/Kg		10/19/21 15:07	10/21/21 22:20	100
Xylenes, Total	14.2		0.399	mg/Kg		10/19/21 15:07	10/21/21 22:20	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	751	S1+	70 - 130	10/18/21 14:06	10/20/21 06:44	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Client Sample ID: PH01A

Lab Sample ID: 890-1432-2

Date Collected: 10/08/21 09:48

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	60	S1-	70 - 130	10/18/21 14:06	10/20/21 06:44	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	10.9		0.00399	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5570		49.8	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1070		49.8	mg/Kg		10/18/21 07:49	10/18/21 15:25	1
Diesel Range Organics (Over C10-C28)	4500		49.8	mg/Kg		10/18/21 07:49	10/18/21 15:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/18/21 07:49	10/18/21 15:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			10/18/21 07:49	10/18/21 15:25	1
o-Terphenyl	85		70 - 130			10/18/21 07:49	10/18/21 15:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	655		5.00	mg/Kg			10/20/21 16:08	1

Client Sample ID: PH01B

Lab Sample ID: 890-1432-3

Date Collected: 10/08/21 10:03

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0223		0.00200	mg/Kg		10/18/21 14:06	10/20/21 07:05	1
Toluene	6.39		0.198	mg/Kg		10/19/21 15:07	10/21/21 22:41	100
Ethylbenzene	4.81		0.198	mg/Kg		10/19/21 15:07	10/21/21 22:41	100
m-Xylene & p-Xylene	27.1		0.397	mg/Kg		10/19/21 15:07	10/21/21 22:41	100
o-Xylene	12.6		0.198	mg/Kg		10/19/21 15:07	10/21/21 22:41	100
Xylenes, Total	39.7		0.397	mg/Kg		10/19/21 15:07	10/21/21 22:41	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	485	S1+	70 - 130	10/18/21 14:06	10/20/21 07:05	1
1,4-Difluorobenzene (Surr)	67	S1-	70 - 130	10/18/21 14:06	10/20/21 07:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	50.9		0.397	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	7270		49.9	mg/Kg			10/20/21 13:58	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Client Sample ID: PH01B

Lab Sample ID: 890-1432-3

Date Collected: 10/08/21 10:03

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1100		49.9	mg/Kg		10/19/21 09:45	10/19/21 13:27	1
Diesel Range Organics (Over C10-C28)	5310		49.9	mg/Kg		10/19/21 09:45	10/19/21 13:27	1
Oil Range Organics (Over C28-C36)	858		49.9	mg/Kg		10/19/21 09:45	10/19/21 13:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			10/19/21 09:45	10/19/21 13:27	1
o-Terphenyl	98		70 - 130			10/19/21 09:45	10/19/21 13:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	911	F1	5.01	mg/Kg			10/20/21 16:15	1

Client Sample ID: PH01C

Lab Sample ID: 890-1432-4

Date Collected: 10/08/21 10:11

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0217		0.00199	mg/Kg		10/18/21 14:06	10/20/21 07:25	1
Toluene	1.65		0.200	mg/Kg		10/19/21 15:07	10/21/21 23:01	100
Ethylbenzene	2.77		0.200	mg/Kg		10/19/21 15:07	10/21/21 23:01	100
m-Xylene & p-Xylene	11.0		0.400	mg/Kg		10/19/21 15:07	10/21/21 23:01	100
o-Xylene	5.06		0.200	mg/Kg		10/19/21 15:07	10/21/21 23:01	100
Xylenes, Total	16.1		0.400	mg/Kg		10/19/21 15:07	10/21/21 23:01	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	642	S1+	70 - 130			10/18/21 14:06	10/20/21 07:25	1
1,4-Difluorobenzene (Surr)	115		70 - 130			10/18/21 14:06	10/20/21 07:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	20.5		0.400	mg/Kg			10/21/21 17:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3280		50.0	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	562		50.0	mg/Kg		10/18/21 07:49	10/18/21 15:59	1
Diesel Range Organics (Over C10-C28)	2720		50.0	mg/Kg		10/18/21 07:49	10/18/21 15:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 15:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/18/21 07:49	10/18/21 15:59	1
o-Terphenyl	90		70 - 130			10/18/21 07:49	10/18/21 15:59	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Client Sample ID: PH01C

Lab Sample ID: 890-1432-4

Date Collected: 10/08/21 10:11

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1870		24.9	mg/Kg			10/20/21 16:37	5

Client Sample ID: PH01D

Lab Sample ID: 890-1432-5

Date Collected: 10/08/21 10:25

Matrix: Solid

Date Received: 10/14/21 12:12

Sample Depth: 11

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		10/18/21 14:06	10/20/21 07:46	1
Toluene	0.0151		0.00201	mg/Kg		10/18/21 14:06	10/20/21 07:46	1
Ethylbenzene	0.00680		0.00201	mg/Kg		10/18/21 14:06	10/20/21 07:46	1
m-Xylene & p-Xylene	0.0371		0.00402	mg/Kg		10/18/21 14:06	10/20/21 07:46	1
o-Xylene	0.0209		0.00201	mg/Kg		10/18/21 14:06	10/20/21 07:46	1
Xylenes, Total	0.0580		0.00402	mg/Kg		10/18/21 14:06	10/20/21 07:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			10/18/21 14:06	10/20/21 07:46	1
1,4-Difluorobenzene (Surr)	102		70 - 130			10/18/21 14:06	10/20/21 07:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0799		0.00402	mg/Kg			10/22/21 12:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	386		50.0	mg/Kg			10/20/21 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	130		50.0	mg/Kg		10/19/21 09:45	10/19/21 13:49	1
Diesel Range Organics (Over C10-C28)	256		50.0	mg/Kg		10/19/21 09:45	10/19/21 13:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 13:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			10/19/21 09:45	10/19/21 13:49	1
o-Terphenyl	118		70 - 130			10/19/21 09:45	10/19/21 13:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	375		4.99	mg/Kg			10/20/21 16:44	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1428-A-1-C MS	Matrix Spike	98	107
890-1428-A-1-D MSD	Matrix Spike Duplicate	107	105
890-1432-1	PH01	936 S1+	42 S1-
890-1432-2	PH01A	751 S1+	60 S1-
890-1432-3	PH01B	485 S1+	67 S1-
890-1432-4	PH01C	642 S1+	115
890-1432-5	PH01D	111	102
890-1434-A-1-B MS	Matrix Spike	136 S1+	125
890-1434-A-1-C MSD	Matrix Spike Duplicate	96	92
LCS 880-9748/1-A	Lab Control Sample	103	110
LCS 880-9911/1-A	Lab Control Sample	88	99
LCSD 880-9748/2-A	Lab Control Sample Dup	95	108
LCSD 880-9911/2-A	Lab Control Sample Dup	88	102
MB 880-9747/5-A	Method Blank	109	93
MB 880-9748/5-A	Method Blank	114	104
MB 880-9911/5-A	Method Blank	100	104
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1428-A-3-D MS	Matrix Spike	312 S1+	215 S1+
890-1428-A-3-E MSD	Matrix Spike Duplicate	268 S1+	203 S1+
890-1431-A-1-B MS	Matrix Spike	113	58 S1-
890-1431-A-1-C MSD	Matrix Spike Duplicate	121	65 S1-
890-1432-1	PH01	120	80
890-1432-2	PH01A	112	85
890-1432-3	PH01B	120	98
890-1432-4	PH01C	103	90
890-1432-5	PH01D	107	118
LCS 880-9627/2-A	Lab Control Sample	82	92
LCS 880-9834/2-A	Lab Control Sample	94	96
LCSD 880-9627/3-A	Lab Control Sample Dup	84	93
LCSD 880-9834/3-A	Lab Control Sample Dup	86	89
MB 880-9627/1-A	Method Blank	91	109
MB 880-9834/1-A	Method Blank	101	116
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9747/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9747

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:01	10/19/21 14:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:01	10/19/21 14:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	10/18/21 14:01	10/19/21 14:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	10/18/21 14:01	10/19/21 14:25	1

Lab Sample ID: MB 880-9748/5-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9748

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/18/21 14:06	10/20/21 01:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/18/21 14:06	10/20/21 01:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	10/18/21 14:06	10/20/21 01:16	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/18/21 14:06	10/20/21 01:16	1

Lab Sample ID: LCS 880-9748/1-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1040		mg/Kg		104	70 - 130
Toluene	0.100	0.08958		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08535		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1765		mg/Kg		88	70 - 130
o-Xylene	0.100	0.09487		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09387		mg/Kg		94	70 - 130	10	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9748/2-A

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.08336		mg/Kg		83	70 - 130	7	35
Ethylbenzene	0.100	0.07798		mg/Kg		78	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1605		mg/Kg		80	70 - 130	9	35
o-Xylene	0.100	0.08265		mg/Kg		83	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 890-1428-A-1-C MS

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0165		0.0996	0.09876		mg/Kg		83	70 - 130
Toluene	0.107	F1	0.0996	0.08737	F1	mg/Kg		-20	70 - 130
Ethylbenzene	0.181	F1	0.0996	0.08507	F1	mg/Kg		-96	70 - 130
m-Xylene & p-Xylene	0.0164		0.199	0.1725		mg/Kg		78	70 - 130
o-Xylene	2.38	E	0.0996	0.08738	4	mg/Kg		-2301	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-1428-A-1-D MSD

Matrix: Solid

Analysis Batch: 9846

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0165		0.100	0.08998		mg/Kg		73	70 - 130	9	35
Toluene	0.107	F1	0.100	0.08531	F1	mg/Kg		-22	70 - 130	2	35
Ethylbenzene	0.181	F1	0.100	0.08445	F1	mg/Kg		-96	70 - 130	1	35
m-Xylene & p-Xylene	0.0164		0.200	0.1755		mg/Kg		80	70 - 130	2	35
o-Xylene	2.38	E	0.100	0.08882	4	mg/Kg		-2291	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Lab Sample ID: MB 880-9911/5-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9911

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/19/21 15:07	10/21/21 13:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/19/21 15:07	10/21/21 13:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	10/19/21 15:07	10/21/21 13:59	1
1,4-Difluorobenzene (Surr)	104		70 - 130	10/19/21 15:07	10/21/21 13:59	1

Lab Sample ID: LCS 880-9911/1-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1034		mg/Kg		103	70 - 130
Toluene	0.100	0.1080		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1174		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.2275		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1186		mg/Kg		119	70 - 130

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

Lab Sample ID: LCSD 880-9911/2-A

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1055		mg/Kg		105	70 - 130	2	35
Toluene	0.100	0.1109		mg/Kg		111	70 - 130	3	35
Ethylbenzene	0.100	0.1167		mg/Kg		117	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2266		mg/Kg		113	70 - 130	0	35
o-Xylene	0.100	0.1189		mg/Kg		119	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.09342		mg/Kg		94	70 - 130
Toluene	<0.00199	U	0.0990	0.1154		mg/Kg		116	70 - 130
Ethylbenzene	<0.00199	U	0.0990	0.1197		mg/Kg		121	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2190		mg/Kg		111	70 - 130
o-Xylene	<0.00199	U F1	0.0990	0.1308	F1	mg/Kg		131	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Lab Sample ID: 890-1434-A-1-B MS

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9911

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

Lab Sample ID: 890-1434-A-1-C MSD

Matrix: Solid

Analysis Batch: 10084

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07836		mg/Kg		78	70 - 130	18	35
Toluene	<0.00199	U	0.100	0.09275		mg/Kg		92	70 - 130	22	35
Ethylbenzene	<0.00199	U	0.100	0.09852		mg/Kg		99	70 - 130	19	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1818		mg/Kg		91	70 - 130	19	35
o-Xylene	<0.00199	U F1	0.100	0.09965		mg/Kg		99	70 - 130	27	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-9627/1-A

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9627

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 11:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 11:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/18/21 07:49	10/18/21 11:23	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	91		70 - 130	10/18/21 07:49	10/18/21 11:23	1		
o-Terphenyl	109		70 - 130	10/18/21 07:49	10/18/21 11:23	1		

Lab Sample ID: LCS 880-9627/2-A

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	761.6		mg/Kg		76	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	774.5		mg/Kg		77	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	92		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Lab Sample ID: LCSD 880-9627/3-A

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	798.9		mg/Kg		80	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	813.4		mg/Kg		81	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	84		70 - 130						
o-Terphenyl	93		70 - 130						

Lab Sample ID: 890-1431-A-1-B MS

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	855		997	1649		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	4410		997	4685	4	mg/Kg		28	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	113		70 - 130								
o-Terphenyl	58	S1-	70 - 130								

Lab Sample ID: 890-1431-A-1-C MSD

Matrix: Solid

Analysis Batch: 9621

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	855		998	1689		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	4410		998	5064	4	mg/Kg		66	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	121		70 - 130								
o-Terphenyl	65	S1-	70 - 130								

Lab Sample ID: MB 880-9834/1-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9834

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/19/21 09:45	10/19/21 10:56	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Lab Sample ID: MB 880-9834/1-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9834

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/19/21 09:45	10/19/21 10:56	1
o-Terphenyl	116		70 - 130	10/19/21 09:45	10/19/21 10:56	1

Lab Sample ID: LCS 880-9834/2-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 9834

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	822.9		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1015		mg/Kg		101	70 - 130		

	LCS	LCS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	94		70 - 130			
o-Terphenyl	96		70 - 130			

Lab Sample ID: LCSD 880-9834/3-A

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 9834

			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	825.7		mg/Kg		83	70 - 130	0	20	
Diesel Range Organics (Over C10-C28)			1000	965.7		mg/Kg		97	70 - 130	5	20	

	LCSD	LCSD				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	86		70 - 130			
o-Terphenyl	89		70 - 130			

Lab Sample ID: 890-1428-A-3-D MS

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9834

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	3310		998	4234		mg/Kg		92	70 - 130		

	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	312	S1+	70 - 130			
o-Terphenyl	215	S1+	70 - 130			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Lab Sample ID: 890-1428-A-3-E MSD

Matrix: Solid

Analysis Batch: 9827

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9834

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	3310		1000	4491		mg/Kg		118	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	268	S1+	70 - 130								
o-Terphenyl	203	S1+	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9752/1-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/20/21 14:14	1

Lab Sample ID: LCS 880-9752/2-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Chloride	250	231.7		mg/Kg		93	90 - 110	

Lab Sample ID: LCSD 880-9752/3-A

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	229.5		mg/Kg		92	90 - 110	1	20

Lab Sample ID: 890-1432-3 MS

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: PH01B

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	911	F1	251	1036	F1	mg/Kg		50	90 - 110		

Lab Sample ID: 890-1432-3 MSD

Matrix: Solid

Analysis Batch: 9997

Client Sample ID: PH01B

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	911	F1	251	1071	F1	mg/Kg		64	90 - 110	3	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

GC VOA

Prep Batch: 9747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-9747/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 9748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	5035	
890-1432-2	PH01A	Total/NA	Solid	5035	
890-1432-3	PH01B	Total/NA	Solid	5035	
890-1432-4	PH01C	Total/NA	Solid	5035	
890-1432-5	PH01D	Total/NA	Solid	5035	
MB 880-9748/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1428-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-1428-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 9846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	8021B	9748
890-1432-2	PH01A	Total/NA	Solid	8021B	9748
890-1432-3	PH01B	Total/NA	Solid	8021B	9748
890-1432-4	PH01C	Total/NA	Solid	8021B	9748
890-1432-5	PH01D	Total/NA	Solid	8021B	9748
MB 880-9747/5-A	Method Blank	Total/NA	Solid	8021B	9747
MB 880-9748/5-A	Method Blank	Total/NA	Solid	8021B	9748
LCS 880-9748/1-A	Lab Control Sample	Total/NA	Solid	8021B	9748
LCSD 880-9748/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9748
890-1428-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	9748
890-1428-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9748

Prep Batch: 9911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	5035	
890-1432-2	PH01A	Total/NA	Solid	5035	
890-1432-3	PH01B	Total/NA	Solid	5035	
890-1432-4	PH01C	Total/NA	Solid	5035	
MB 880-9911/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 10084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	8021B	9911
890-1432-2	PH01A	Total/NA	Solid	8021B	9911
890-1432-3	PH01B	Total/NA	Solid	8021B	9911
890-1432-4	PH01C	Total/NA	Solid	8021B	9911
MB 880-9911/5-A	Method Blank	Total/NA	Solid	8021B	9911
LCS 880-9911/1-A	Lab Control Sample	Total/NA	Solid	8021B	9911
LCSD 880-9911/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9911
890-1434-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	9911

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

GC VOA (Continued)

Analysis Batch: 10084 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1434-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9911

Analysis Batch: 10147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	Total BTEX	
890-1432-2	PH01A	Total/NA	Solid	Total BTEX	
890-1432-3	PH01B	Total/NA	Solid	Total BTEX	
890-1432-4	PH01C	Total/NA	Solid	Total BTEX	
890-1432-5	PH01D	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 9621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	8015B NM	9627
890-1432-2	PH01A	Total/NA	Solid	8015B NM	9627
890-1432-4	PH01C	Total/NA	Solid	8015B NM	9627
MB 880-9627/1-A	Method Blank	Total/NA	Solid	8015B NM	9627
LCS 880-9627/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9627
LCSD 880-9627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9627
890-1431-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	9627
890-1431-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9627

Prep Batch: 9627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	8015NM Prep	
890-1432-2	PH01A	Total/NA	Solid	8015NM Prep	
890-1432-4	PH01C	Total/NA	Solid	8015NM Prep	
MB 880-9627/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9627/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1431-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1431-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 9827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-3	PH01B	Total/NA	Solid	8015B NM	9834
890-1432-5	PH01D	Total/NA	Solid	8015B NM	9834
MB 880-9834/1-A	Method Blank	Total/NA	Solid	8015B NM	9834
LCS 880-9834/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9834
LCSD 880-9834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9834
890-1428-A-3-D MS	Matrix Spike	Total/NA	Solid	8015B NM	9834
890-1428-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9834

Prep Batch: 9834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-3	PH01B	Total/NA	Solid	8015NM Prep	
890-1432-5	PH01D	Total/NA	Solid	8015NM Prep	
MB 880-9834/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9834/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

GC Semi VOA (Continued)

Prep Batch: 9834 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1428-A-3-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1428-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 10003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Total/NA	Solid	8015 NM	
890-1432-2	PH01A	Total/NA	Solid	8015 NM	
890-1432-3	PH01B	Total/NA	Solid	8015 NM	
890-1432-4	PH01C	Total/NA	Solid	8015 NM	
890-1432-5	PH01D	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 9752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Soluble	Solid	DI Leach	
890-1432-2	PH01A	Soluble	Solid	DI Leach	
890-1432-3	PH01B	Soluble	Solid	DI Leach	
890-1432-4	PH01C	Soluble	Solid	DI Leach	
890-1432-5	PH01D	Soluble	Solid	DI Leach	
MB 880-9752/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9752/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9752/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1432-3 MS	PH01B	Soluble	Solid	DI Leach	
890-1432-3 MSD	PH01B	Soluble	Solid	DI Leach	

Analysis Batch: 9997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1432-1	PH01	Soluble	Solid	300.0	9752
890-1432-2	PH01A	Soluble	Solid	300.0	9752
890-1432-3	PH01B	Soluble	Solid	300.0	9752
890-1432-4	PH01C	Soluble	Solid	300.0	9752
890-1432-5	PH01D	Soluble	Solid	300.0	9752
MB 880-9752/1-A	Method Blank	Soluble	Solid	300.0	9752
LCS 880-9752/2-A	Lab Control Sample	Soluble	Solid	300.0	9752
LCSD 880-9752/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9752
890-1432-3 MS	PH01B	Soluble	Solid	300.0	9752
890-1432-3 MSD	PH01B	Soluble	Solid	300.0	9752

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Client Sample ID: PH01

Lab Sample ID: 890-1432-1

Date Collected: 10/08/21 09:42

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 22:00	MR	XEN MID
Total/NA	Prep	5035			4.98 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 06:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9627	10/18/21 07:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9621	10/18/21 14:52	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 16:01	CH	XEN MID

Client Sample ID: PH01A

Lab Sample ID: 890-1432-2

Date Collected: 10/08/21 09:48

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 22:20	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 06:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9627	10/18/21 07:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9621	10/18/21 15:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.00 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 16:08	CH	XEN MID

Client Sample ID: PH01B

Lab Sample ID: 890-1432-3

Date Collected: 10/08/21 10:03

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 22:41	MR	XEN MID
Total/NA	Prep	5035			4.99 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 07:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9834	10/19/21 09:45	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			9827	10/19/21 13:27	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 16:15	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Client Sample ID: PH01C

Lab Sample ID: 890-1432-4

Date Collected: 10/08/21 10:11

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	9911	10/19/21 15:07	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	10084	10/21/21 23:01	MR	XEN MID
Total/NA	Prep	5035			5.02 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 07:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/21/21 17:04	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9627	10/18/21 07:49	AM	XEN MID
Total/NA	Analysis	8015B NM		1			9621	10/18/21 15:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		5			9997	10/20/21 16:37	CH	XEN MID

Client Sample ID: PH01D

Lab Sample ID: 890-1432-5

Date Collected: 10/08/21 10:25

Matrix: Solid

Date Received: 10/14/21 12:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	9748	10/18/21 14:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9846	10/20/21 07:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			10147	10/22/21 12:40	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			10003	10/20/21 13:58	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9834	10/19/21 09:45	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			9827	10/19/21 13:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	9752	10/18/21 14:13	CA	XEN MID
Soluble	Analysis	300.0		1			9997	10/20/21 16:44	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Azores Fed Com 4H

Job ID: 890-1432-1
SDG: 31402909.130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1432-1	PH01	Solid	10/08/21 09:42	10/14/21 12:12	1
890-1432-2	PH01A	Solid	10/08/21 09:48	10/14/21 12:12	3
890-1432-3	PH01B	Solid	10/08/21 10:03	10/14/21 12:12	6
890-1432-4	PH01C	Solid	10/08/21 10:11	10/14/21 12:12	8
890-1432-5	PH01D	Solid	10/08/21 10:25	10/14/21 12:12	11



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) 794-1286
 Hobbs, NM (575) 382-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 889-6701

Atlanta, GA (770) 449-8800

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	WSP USA	Company Name:	
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(817) 683-2503	Email:	kalei.jennings@wsp.com

Work Order Comments			
Program: USTR/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RR <input type="checkbox"/> Superfund <input type="checkbox"/>			
State of Project:			
Reporting Level <input type="checkbox"/>	Level <input type="checkbox"/>	PST/US <input type="checkbox"/>	TRF <input type="checkbox"/> Level <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/>	Other: _____	

[illegible]

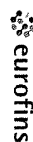
Eurofins Xenco, Carlsbad

1089 N Canal St.

Carlsbad NM 88220

Phone. 575-988-3199 Fax 575-988-3199

Chain of Custody Record



**Environment Testing
America**

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1432-1

SDG Number: 31402909.130

Login Number: 1432

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1432-1

SDG Number: 31402909.130

Login Number: 1432

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 10/15/21 12:19 PM

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

ATTACHMENT 4: FINAL C-141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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


<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: <u></u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>8/31/2021</u>

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

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

CONDITIONS

Action 45566

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 45566
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
marcus	None	8/31/2021

Incident ID	NAPP2124346388
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2124346388
District RP	
Facility ID	
Application ID	

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer
Signature: Charles R. Beauvais Date: 03/17/2022
email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: _____ Date: _____

Incident ID	NAPP2124346388
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Charles Beauvais Title: Senior Environmental EngineerSignature: Charles R. Beauvais II Date: 03/17/2022email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043**OCD Only**

Received by: _____ Date: _____

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: Jennifer Nobui Date: 04/27/2022

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 91340

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 91340
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved.	4/27/2022