

SITE INFORMATION

Report Type: Closure Report NRM2008542121

General Site Information:

Site:	El Paso 23 Federal Tank Battery #2					
Company:	EOG Resources					
Section, Township and Range	Unit C	Sec. 23	T 26S	R 30E		
County:	Eddy County					
GPS:	32.03222			-103.851992		
Surface Owner:						

Release Data:

Date Released:	10/19/2019
Type Release:	Oil tank overflow
Source of Contamination:	PW & Crude
Fluid Released:	210 Oil & 80 PW
Fluids Recovered:	0bbls

Official Communication:

Name:	Todd Wells		Clair Gonzales
Company:	EOG Resources		Tetra Tech
Address:	5509 Champions Dr		901 West Wall Street
			Suite 100
City:	Midland Texas, 79706		Midland, Texas
Phone number:	432-686-7016		(432) 682-4559
Fax:			
Email:	todd_well@eogresources.com		Clair.Gonzales@tetrattech.com

Site Characterization

Depth to Groundwater:	>59' below surface
Karst Potential:	Medium

Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO+MRO)	TPH (GRO + DRO)	Chlorides
10 mg/kg	50 mg/kg	2,500 mg/kg	1,000 mg/kg	10,000



April 21, 2021

Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Closure Report for the EOG Resources, El Paso 23 Fed #2 TB, Unit C, Section 23, Township 26 South, Range 30 East, Eddy County, New Mexico. NRM2008542121

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources to assess a release that occurred at the El Paso 23 Fed #2 TB, Unit C, Section 23, Township 26 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.032219 °, W 103.851992°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on October 19, 2019, due to the water dump failing causing the tank to overflow inside unlined containment. A total of 210 barrels of crude oil was released and 80 barrels of produced water. No freestanding fluids were recovered. The release occurred inside the berm and impacted an area measuring approximately 22 'x 23'. The C-141 Form is included in Appendix A.

Site Characterization

A site characterization was performed for the site, and no watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances and the site is in a medium karst potential area.

The nearest well is listed in the USGS National Water Information Database website in Section 22, approximately 0.87 miles southwest of the site, and has a reported depth to groundwater of 117 feet below ground surface. Site characterization data is included in Appendix B.

Tetra Tech

901 West Wall, Suite 100, Midland, TX 79701

Tel 432.682.4559

Fax 432.682.3946

www.tetrattech.com



Depth to Water Determination

On November 18, 2020, HCI Drilling was onsite to drill a groundwater determination borehole to 59' below ground surface and within a ½ mile radius of the location. The borehole was left open for 72 hours and checked for the presence of groundwater. No water was detected at 59' below surface. The borehole coordinates are 32.032207, -103.851552. The driller log is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the site following the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based on the site characterization, the proposed RRAL for TPH is 2,500 mg/kg (GRO+DRO+MRO) and 1,000 mg/kg (GRO+DRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 10,000 mg/kg.

Soil Assessment and Analytical Results

Trenches

On March 16, 2020, Tetra Tech personnel were on site to evaluate and sample the release area. One trench (Trench-1) was installed in the spill area to assess and define the extent of impact. Soil samples were collected, and field screened for chlorides. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The trench location is shown on Figure 3.

Referring to Table 1, high TPH concentrations were detected at depths from surface to 13.0' with concentrations ranging from 6,440 mg/kg to 27,100 mg/kg. Samples of depths 1.0'-13.0' showed Total BTEX concentrations ranging from 256 mg/kg to 775 mg/kg. In addition, chloride was detected in all samples, exhibiting only one concentration over RRALs of 4,030 mg/kg at 2.0'-2.5' below surface. The spill area was not vertically defined by the trench.

Bore Hole

On June 16, 2020, Tetra Tech personnel were on site to further evaluate the spill area. One borehole (Bore Hole-1) was installed in the spill area to assess and define the extents. Soil samples were collected, and field screened for chlorides. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-



custody documentation are included in Appendix D. The results of the sampling are summarized in Table 2, the bore log is shown in Appendix C. The borehole location is shown on Figure 3 and is in the same area as trench 1.

Referring to Table 2, all collected samples, except for the sampled depths at surface-1.0', 2.0'-3.0', 19.0'-20.0', and 29.0'-30.0', did not show concentrations of TPH or Total BTEX above laboratory reporting limits. TPH concentrations above RRALs were detected at depths of surface-1.0' below surface and 19.0'-20.0' below surface, reporting concentrations of 568 mg/kg and 2,680 mg/kg, respectively. Chloride concentrations were detected in all samples but reported concentrations below RRALs and the remediation standard of 600 mg/kg for the top 4.0' of soil.

Additional Sampling

On March 9, 2021, Tetra Tech personnel were on site to evaluate and sample the release area. Two trenches (Trench-2 and Trench-3) were installed in the spill area to assess and define the extent of impact under the tanks that had been recently removed. Soil samples were collected, and field screened for chlorides and hydrocarbons. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The trench location is shown on Figure 3.

Referring to Table 1, total TPH and BTEX concentrations above RRALs were detected in both trenches (Trench-2 and Trench-3). TPH concentrations above RRALs were detected in trench (Trench-2) at depths from surface to 20.0' below surface, with concentrations ranging from 5,310 mg/kg to 19,400 mg/kg. TPH concentrations above RRALs were detected in trench (Trench-3) at 0-1.0' below surface, reporting a concentration of 5,280 mg/kg. Additionally, the area of trench (Trench-2) reported BTEX concentrations above RRALs at depths from 5.0' to 20.0' below surface, with concentrations ranging from 123 mg/kg to 451 mg/kg. The area of trench (Trench-3) reported a BTEX concentration above RRALs at surface, reporting a concentration of 167 mg/kg. Additionally, chloride concentrations were detected in all collected samples, but were reported below RRALs and the remediation standard of 600 mg/kg for the top 4.0' of soil. The spill area of trench (Trench 2) was not vertically defined.

Remediation and Reclamation Activities

Following approval from the OCD on November 2, 2020 for the submitted work plan, Tetra Tech personnel were onsite March 9, 2021 through March 17, 2021, to supervise remediation activities and collect confirmation samples. The impacted areas were excavated to depths ranging from 10.0' below surface and 20.0' below surface, as shown on Figure 4 and Table 3.

Confirmation bottom hole and sidewall samples were collected every 200 square feet, a total of 8 bottom hole samples (Bottom Hole-1 through Bottom Hole-8) and 12 sidewall samples (SW-1 through SW-12) were collected to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, BTEX method 8021B, and Chloride by EPA Method 300.0. The



sampling results are summarized in Table 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The excavation depths, and sample locations are shown in Figure 4.

Referring to Table 3, all final confirmation samples collected showed benzene, total BTEX, TPH, and chloride concentrations below RRALs.

Approximately 1,752 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

Conclusion

Based on the laboratory results and remediation activities performed, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

A handwritten signature in blue ink, appearing to read 'Brittany Long'.

Brittany Long,
Project Manager

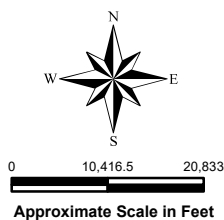
A handwritten signature in blue ink, appearing to read 'Clair Gonzales'.

Clair Gonzales, P.G.
Senior Project Manager

Figures



SITE LOCATION



OVERVIEW MAP

EL PASO 23 FEDERAL #2 TB

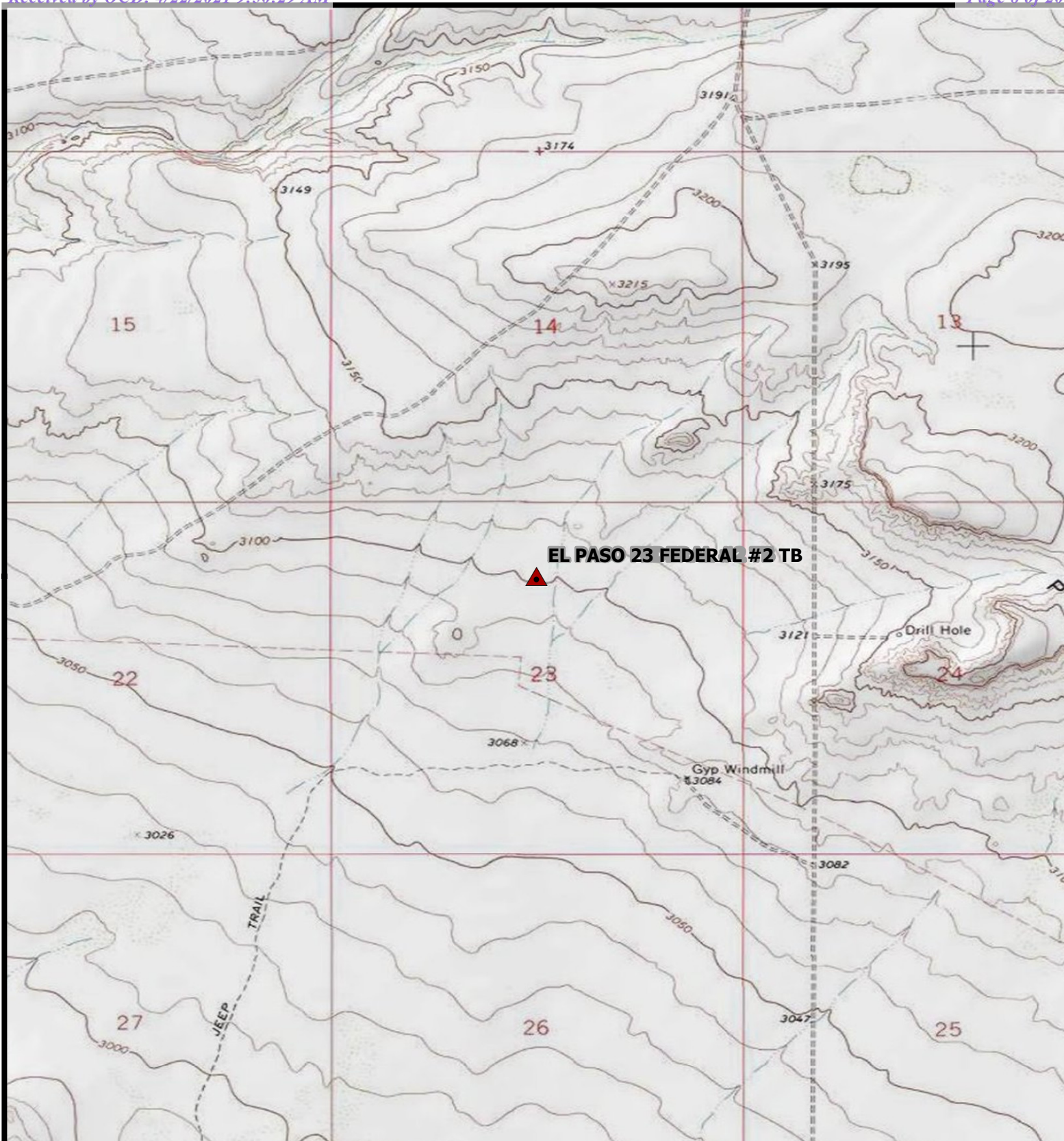
Property Located at coordinates 32.032219°,-103.851992°
 EDDY COUNTY, NEW MEXICO

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

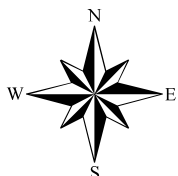


Project #: 212C-MD-02003
 Date: 06-16-2020
 Drawn By: MLM

FIGURE
1



SITE LOCATION



0 1,000 2,000

Approximate Scale in Feet

TOPOGRAPHIC MAP

EL PASO 23 FEDERAL #2 TB

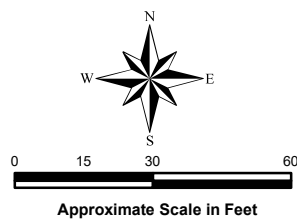
Property Located at coordinates 32.032219°,-103.851992°
EDDY COUNTY, NEW MEXICOProject #: 212C-MD-02003
Date: 06-16-2020
Drawn By: MLMFIGURE
2

SAMPLE & BOREHOLE DESIGNATIONS	LATITUDE	LONGITUDE
T-1	32.031975°	-103.852242°
T-2	32.031957°	-103.852164°
T-3	32.03195°	-103.852062°
BH-1	32.031987°	-103.852260°
GWD BOREHOLE	32.032246°	-103.851589°


**GROUNDWATER
 DETERMINATION
 BORE**



-  BOREHOLE SAMPLE LOCATION
-  TRENCH SAMPLE LOCATIONS
-  AFFECTED AREA

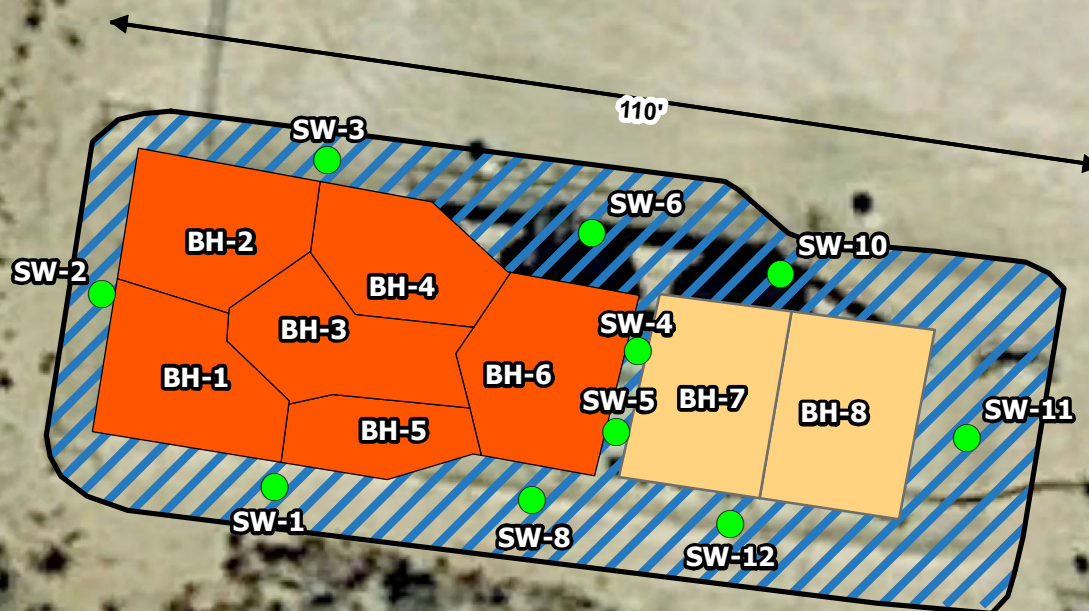


EXCAVATION AREA & DEPTH MAP
 EL PASO 23 FEDERAL #2 TB
 Property located at coordinates 32.03222°, -103.851992°
 EDDY COUNTY, NEW MEXICO

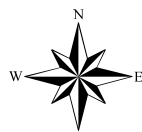


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 Project #: 212C-MD-02003
 Date: 03-23-2021
 Drawn By: EMF

**FIGURE
 3**



- 10' EXCAVATION DEPTH
- 20' EXCAVATION DEPTH
- SLOPE AREA
- BH** BOTTOM HOLE SAMPLE LOCATIONS
- SIDEWALL SAMPLE LOCATIONS



0 5 10 20

Approximate Scale in Feet

EXCAVATION AREA & DEPTH MAP
EL PASO 23 FEDERAL #2 TB
Property located at coordinates 32.03222°, -103.851992°
EDDY COUNTY, NEW MEXICO



Project #: 212C-MD-02003
Date: 03-23-2021
Drawn By: EMF

FIGURE
4

Tables

Table 1
EOG
EI Paso 23 Fed #2 TB
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Trench-1	3/16/2020	0-1	X		2,910	3,770	<50.2	6,680	<0.200	0.373	0.901	48.0	49.3	63.1
	"	1-1.5	X		8,760	4,730	<249	13,500	0.692	47.5	6.56	202	256	425
	"	2-2.5	X		11,900	5,690	<251	17,600	6.55	231	15.3	522	775	4,030
	"	3-3.5	X		8,630	4,270	<250	12,900	2.53	52.4	5.29	118	178	178
	"	4-4.5	X		8,060	4,020	<251	12,100	3.96	79.2	10.1	200	294	37.1
	"	5-5.5	X		9,940	4,350	<250	14,300	6.03	174	15.2	412	607	338
	"	6 - 6.5	X		4,350	2,090	<49.8	6,440	2.72	69.3	8.45	180	261	61.4
	"	7 - 7.5	X		8,200	4,140	<251	12,300	2.01	67.7	8.04	178	250	364
	"	8' - 8.5'	X		10,200	4,930	<249	15,100	3.78	83.9	9.96	217	314	241
	"	9 - 9.5	X		12,300	5,800	<251	18,100	6.87	175	18.0	383	583	78.4
	"	10	X		16,500	10,600	<249	27,100	6.85	247	28.4	502	629	1,040
	"	11	X		14,200	7,360	<249	21,600	8.39	262	28.4	476	599	898
	"	12	X		5,820	4,100	<249	9,920	4.19	149	15.9	348	517	570
	"	13	X		8,160	4,440.0	<251	12,600	3.38	99.9	11.1	245	360	242
Trench-2	3/9/2021	0-1'	X	-	1820	3490	<49.9	5310	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	253
	3/9/2021	5'	X	-	5800	10600	<250	16400	3.37	70.7	11.1	355	440	771
	3/9/2021	10'	X	-	1910	3950	<50.0	5860	0.845	37.0	7.79	162	208	218
	3/9/2021	15'	X	-	3140	3760	<50.0	6900	1.11	19.0	4.08	99.2	123	1150
	3/9/2021	20'	X	-	6550	12800	<249	19400	4.60	95.6	15.9	335	451	722
Trench-3	3/9/2021	0-1'	X	-	1810	3470	<49.8	5280	0.451	26.2	6.41	134	167	243
	3/9/2021	5'	X	-	<50.0	<50.0	<50.0	<50.0	0.00614	0.0634	0.0136	0.165	0.248	11.1
	3/9/2021	10'	X	-	<50.0	<50.0	<50.0	<50.0	0.00259	0.0305	0.00571	0.0729	0.112	50.9



Proposed Excavation

Table 2
EOG
EI Paso 23 Fed #2 TB
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Bore Hole-1	6/16/2020	0-1	X		<50.0	568	<50.0	568	<0.00201	<0.00201	<0.00201	0.002620	0.00262	234
	"	2-3	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	0.00522	<0.00200	0.00522	32.9
	"	4-5	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	16.3
	"	6-7	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	15.4
	"	9-10	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	28.8
	"	14-15	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	86.8
	"	19-20	X		1,160	1,520	<49.9	2,680	0.105	2.04	3.18	23.6	28.9	92.6
	"	24-25	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	75.1
	"	29-30	X		122	491	<49.9	613	0.0414	0.0412	0.211	0.985	1.28	782
	"	34-35	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	173
	"	39-40	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	112
	"	44-45	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	126



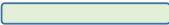
Proposed Excavation

Table 3
EOG
EI Paso 23 Fed #2 TB
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
BH-1	3/11/2021	20'	X	-	74.5	<49.9	<49.9	74.5	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	498
BH-2	3/11/2021	20'	X	-	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	238
BH-3	3/11/2021	20'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	696
BH-4	3/11/2021	20'	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	106
BH-5	3/11/2021	20'	X	-	66.6	51.5	<49.9	118	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	445
BH-6	3/11/2021	15'	X	-	2400	1400	<49.9	7270	<0.00200	0.352	<0.00200	0.432	0.784	520
	3/17/2021	20'	X	-	<49.9	<49.9	<49.9	<49.9	0.00494	0.0495	0.00922	0.0217	0.0854	1310
BH-7	3/11/2021	10'	X	-	99.6	61.4	<49.9	161	<0.00202	0.0162	0.00262	0.0297	0.0485	217
BH-8	3/11/2021	10'	X	-	96.5	75.9	<50.0	325	<0.00202	0.022	<0.00202	0.0917	0.114	334
SW-1	3/11/2021	-	X	-	1190	115	<50.0	1310	<0.00200	0.370	<0.00200	0.186	0.556	148
	3/18/2021	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00199	0.00846	0.00246	0.00431	0.0152	2220
SW-2	3/11/2021	-	X	-	1490	189	<49.9	1680	<0.00202	0.331	<0.00202	0.168	0.499	349
	3/19/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00198	0.00536	<0.00198	<0.00397	0.00536	2180
SW-3	3/11/2021	-	X	-	887	119	<49.9	1010	<0.00200	0.374	<0.00200	0.299	0.673	37.0
	3/20/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	0.00366	<0.00199	<0.00398	0.00366	2330
SW-4	3/11/2021	-	X	-	285	69.9	<49.8	355	<0.00200	0.328	<0.00200	0.232	0.560	131
	3/21/2021	-	X	-	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	1560
SW-5	3/11/2021	-	X	-	115	<50.0	<50.0	115	<0.00202	0.00509	0.00300	0.0232	0.0313	498
SW-6	3/11/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00201	0.102	<0.00201	<0.00201	0.102	76.9
SW-7	3/11/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	78.6
SW-8	3/11/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	81.7
SW-9	3/11/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	0.0454	0.0454	13.5
SW-10	3/11/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	14.1
SW-11	3/11/2021	-	X	-	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	14.6

Table 3
EOG
El Paso 23 Fed #2 TB
Eddy County, New Mexico

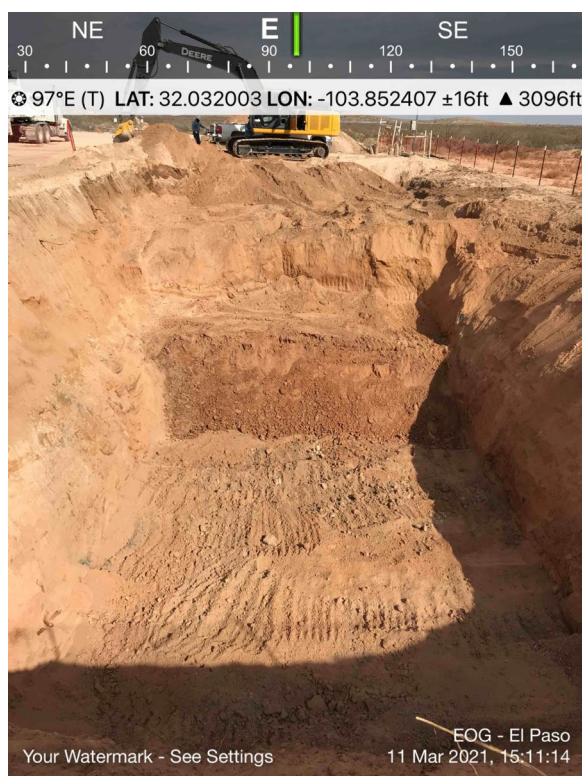
Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
SW-12	3/11/2021	-	X	-	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	13.9



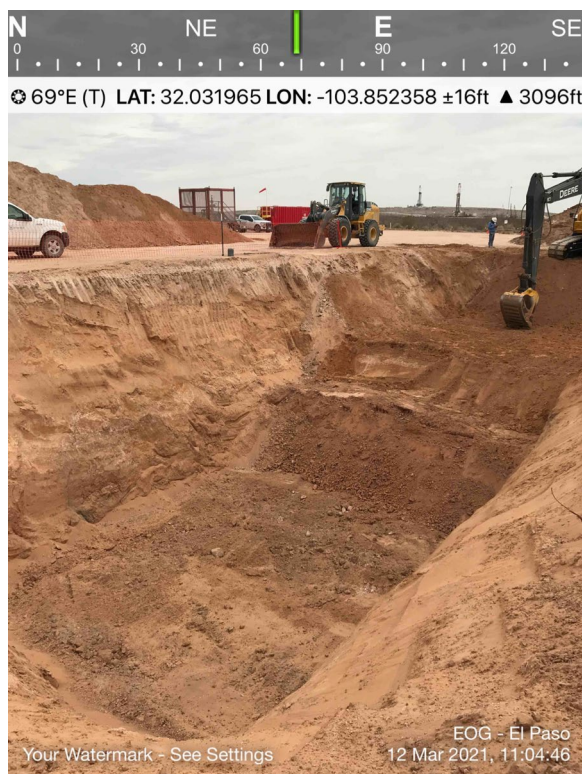
Excavated

Photos

EOG Resources
El Paso 23 Federal #2 TB
Eddy County, New Mexico

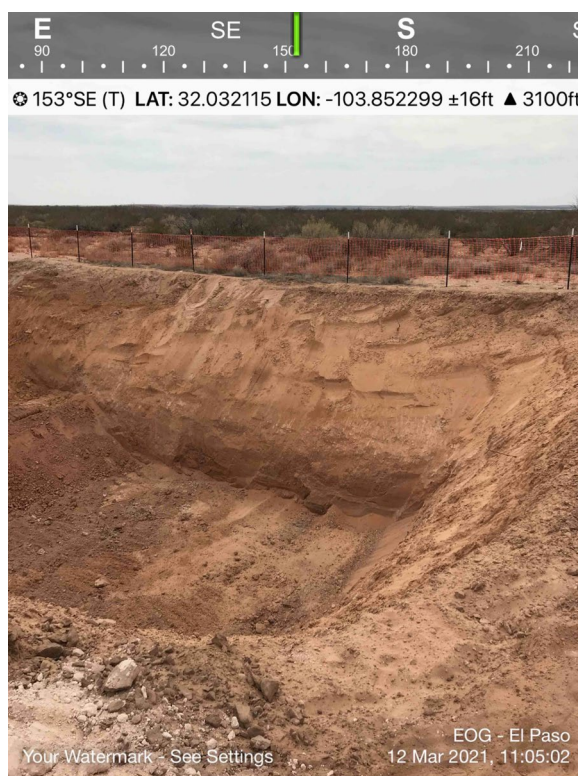


View of Remediation Activities – View East

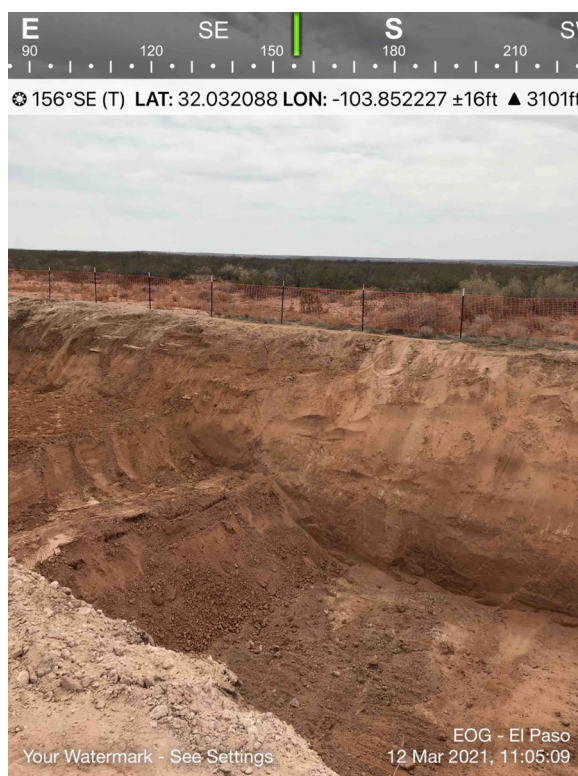


View of Remediation Activities – View Northeast

EOG Resources
El Paso 23 Federal #2 TB
Eddy County, New Mexico



View of Remediation Activities – View Southeast



View of Remediation Activities– View Southeast

Appendix A

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 EOG Resources	OGRID 7377
Contact Name Todd Wells	Contact Telephone (432) 686-3613
Contact email Todd_Wells@eogresources.com	Incident # (assigned by OCD)
Contact mailing address 5509 Champions Drive Midland, TX 79706	

Location of Release Source

Latitude 32.032019° Longitude -103.852174°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name El Paso 23 Fed #2	Site Type Tank Battery
Date Release Discovered 10/19/19	API# (if applicable) 30-015-29307

Unit Letter	Section	Township	Range	County
C	23	26S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 210	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 80	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: The water dump failed to open and sent water through the oil side of the separator, sending water to the oil tank and over filling the oil tank. Approximately 210 bbls of crude oil and 80 bbls of produced water released inside unlined containment, 0 bbls was recovered.

State of New Mexico
Oil Conservation Division

Page 2

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? More than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <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: <u>Todd Wells</u>	Title: <u>Environmental Specialist</u>
Signature: <u>Todd Wells</u>	Date: <u>3-20-20</u>
email: <u>Todd Wells@eogresources.com</u>	Telephone: <u>(432) 686-3613</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

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

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

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

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
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: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B



Borehole ID:

Soil Drilling Log

Groundwater Determination Bore

Project Name : EOG El Paso TB
Project No. : 212C-MD-02003
Location : Eddy County, New Mexico
Coordinates : 32.032207, -103.851552
Elevation : NA

Date : Wednesday, November 18, 2020
Sampler : Devin Dominguez; Zeke MorenoFlores
Driller : HCI
Method : Air Rotary

Depth (ft.)	WL	Soil Description	Organic Analyzer (ppm)	Chloride Field Test (ppm)	Depth (ft.)	WL	Soil Description	Organic Analyzer (ppm)	Chloride Field Test (ppm)
0		Tan silty sand, NO, NS			50				
5					55		Light brown silt w/ clay fragments		
10					60				
15		Brown silty sand w/ clay fragments			65				
20					70				
25					75				
30		Light brown silt			80				
35					85				
40					90				
45		Light brown silt w/ clay fragments			95				
50					100				

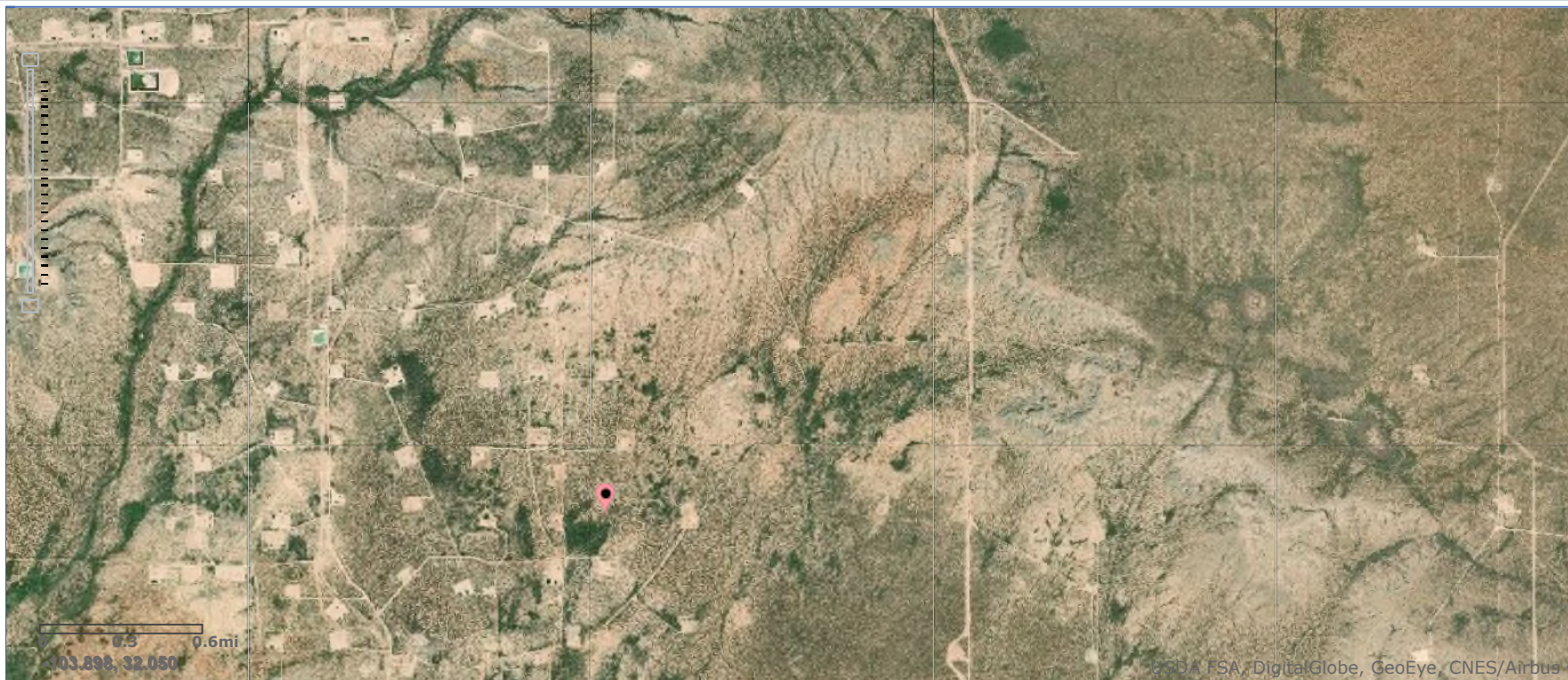
* H.O. = Heavy Odor
 * H.S. = Heavy Staining

* L.O. = Low Odor
 * L.S. = Low Staining

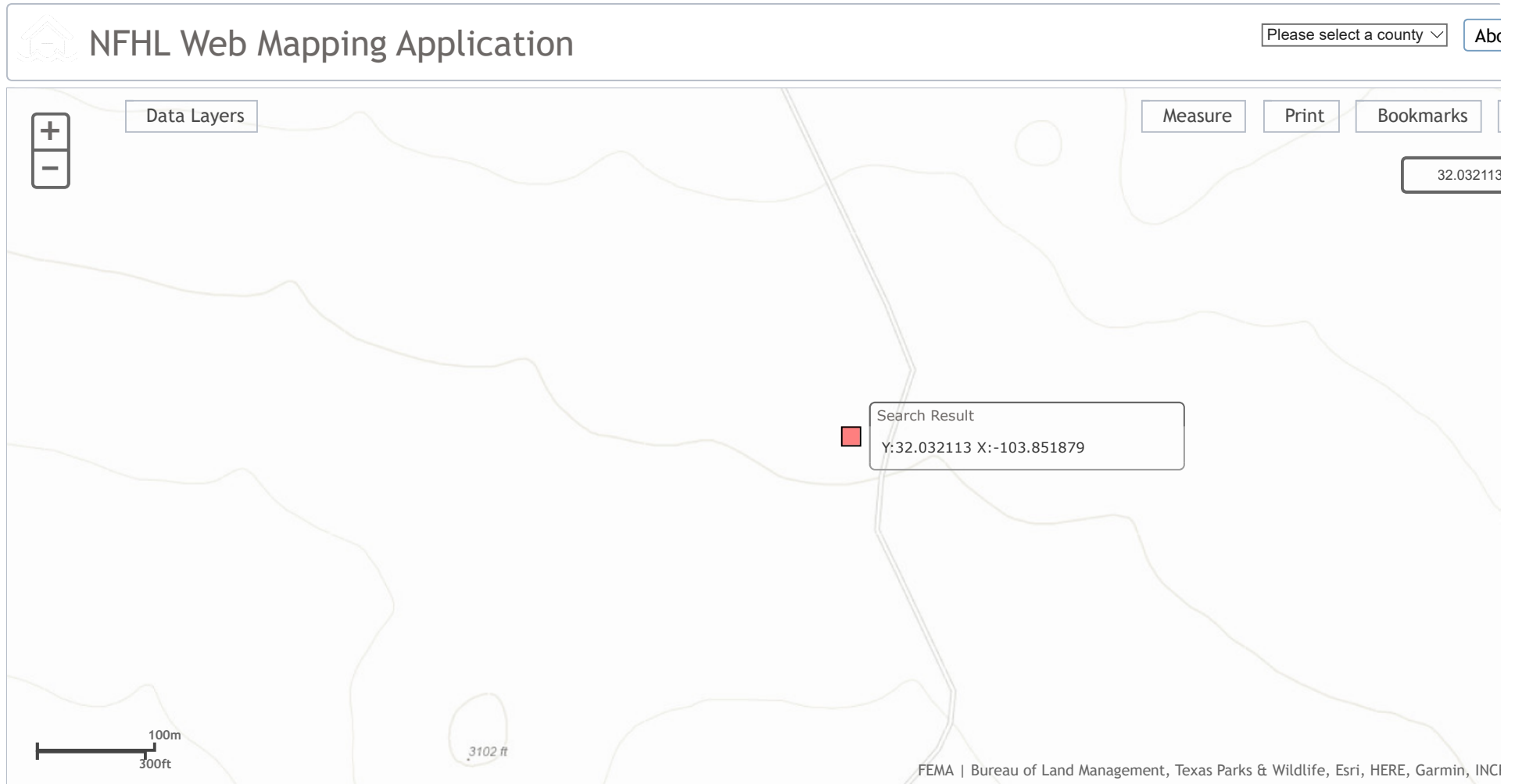
Total Depth = 59'



National Water Information System: Mapper



Site Information





[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 320125103514701

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320125103514701 26S.30E.22.44124

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13070001

Latitude 32°01'25", Longitude 103°51'47" NAD27

Land-surface elevation 3,044 feet above NGVD29

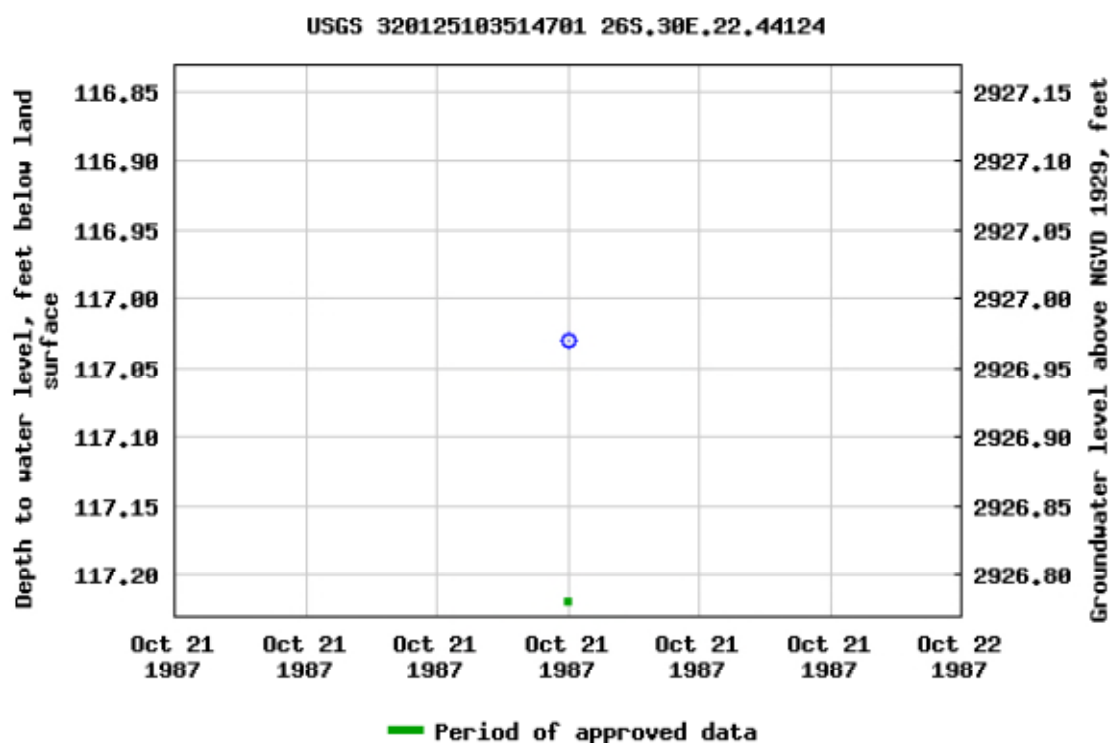
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-11-21 10:03:30 EST

0.54 0.49 nadww01



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01360	CUB	ED		4	3	3	05	26S	30E	602997	3548152	770	173	597
C 01361	CUB	ED		3	4	3	05	26S	30E	603240	3548157	775	184	591
C 02165	C	ED					24	26S	30E	610036	3544121*	440	180	260
C 03483	C	ED		4	4	4	05	26S	30E	604296	3548251	700	200	500
C 03581 POD1	CUB	ED		4	4	4	05	26S	30E	604298	3548291	800	320	480
C 04068 POD1	CUB	ED		1	3	1	16	26S	30E	604397	3546018			

Average Depth to Water: **211 feet**

Minimum Depth: **173 feet**

Maximum Depth: **320 feet**

Record Count: 6

PLSS Search:

Township: 26S

Range: 30E

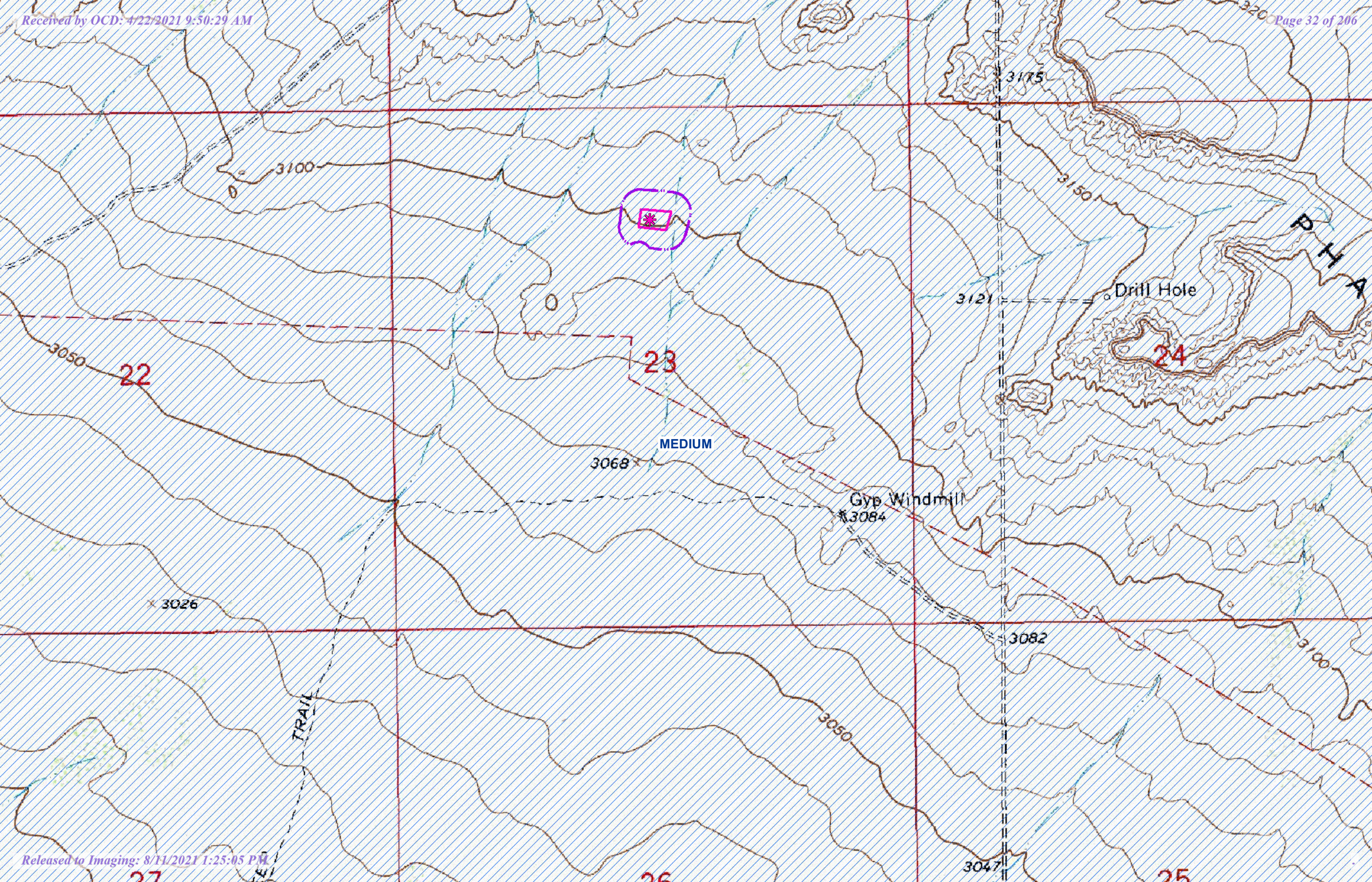
*UTM location was derived from PLSS - see Help

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

11/21/19 8:06 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



Water Well Data
Average Depth to Groundwater (ft)
EOG - El Paso 23 Federal #2 TB

25 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

25 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

121 Abandoned Waterwell (recently measured)

Appendix C



BH-1

Soil Drilling Log with Field Testing Results

Project Name : EOG EL Paso 23 Federal Tank Battery
Project No. : 212C-MD-02003
Location : Eddy County, NM
Coordinates : 32.031989 -103.852262
Elevation : NA

Date : Tuesday, June 16, 2020
Sampler : Devin Dominguez
Driller : Scarborough Drilling
Method : Air Rotary

Depth (ft.)	WL	Soil Description	Organic Analyzer (ppm)	Chloride Field Test (ppm)	Depth (ft.)	WL	Soil Description	Organic Analyzer (ppm)	Chloride Field Test (ppm)
0		Brown silty sand with gravel, HO, HS	151.3		50				
		Brown silty sand, HO	186.7						
5		Brown/black sand, HO, HS	235.8		55				
		Black silty sand, HO, HS	261.1						
10		Black silty sand, HO, HS			60				
15		Dark brown/black silty sand, HO, HS	108.8	765	65				
20		Dark brown/black silty sand, HO, HS	1,444	1.19 ppt	70				
25		Brown silty sand, HO, LS	165.8	1.27 ppt	75				
30		Brown silty sand, HO, LS	1,475	1.42 ppt	80				
35		Light brown silty sand, no odor, no staining	23.6	422	85				
40		Light brown silty sand, no odor, no staining	18.4	394	90				
45		Light brown silty sand, no odor, no staining	4.5	327	95				
50					100				

* H.O. = Heavy Odor

* L.O. = Low Odor

* H.S. = Heavy Staining

* L.S. = Low Staining

Appendix D

Analytical Report 655975

for

Tetra Tech- Midland

Project Manager: Mike Carmona

El Paso 23 Fed 2 TB

212C-MD-02003

20-MAR-20

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



20-MAR-20

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **655975**

El Paso 23 Fed 2 TB

Project Address: Eddy Co, NM

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 655975. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 655975 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

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

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 655975

Tetra Tech- Midland, Midland, TX

El Paso 23 Fed 2 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench 1 (0-1')	S	03-16-20 00:00	0 - 1 ft	655975-001
Trench 1 (1-1.5')	S	03-16-20 00:00	1 - 1.5 ft	655975-002
Trench 1 (2-2.5')	S	03-16-20 00:00	2 - 2.5 ft	655975-003
Trench 1 (3-3.5')	S	03-16-20 00:00	3 - 3.5 ft	655975-004
Trench 1 (4-4.5')	S	03-16-20 00:00	4 - 4.5 ft	655975-005
Trench 1 (5-5.5')	S	03-16-20 00:00	5 - 5.5 ft	655975-006
Trench 1 (6-6.5')	S	03-16-20 00:00	6 - 6.5 ft	655975-007
Trench 1 (7-7.5')	S	03-16-20 00:00	7 - 7.5 ft	655975-008
Trench 1 (8-8.5')	S	03-16-20 00:00	8 - 8.5 ft	655975-009
Trench 1 (9-9.5')	S	03-16-20 00:00	9 - 9.5 ft	655975-010
Trench 1 (10')	S	03-17-20 00:00	10 - 1 ft	655975-011
Trench 1 (11')	S	03-17-20 00:00	11 - 1 ft	655975-012
Trench 1 (12')	S	03-17-20 00:00	12 - 1 ft	655975-013
Trench 1 (13')	S	03-17-20 00:00	13 - 1 ft	655975-014



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: El Paso 23 Fed 2 TB

Project ID: 212C-MD-02003
Work Order Number(s): 655975

Report Date: 20-MAR-20
Date Received: 03/17/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120001 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3120167 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3120331 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analysis Summary 655975

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Fed 2 TB

Project Id: 212C-MD-02003

Contact: Mike Carmona

Project Location: Eddy Co, NM

Date Received in Lab: Tue Mar-17-20 02:13 pm

Report Date: 20-MAR-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	655975-001	655975-002	655975-003	655975-004	655975-005	655975-006
	<i>Field Id:</i>	Trench 1 (0-1')	Trench 1 (1-1.5')	Trench 1 (2-2.5')	Trench 1 (3-3.5')	Trench 1 (4-4.5')	Trench 1 (5-5.5')
	<i>Depth:</i>	0-1 ft	1-1.5 ft	2-2.5 ft	3-3.5 ft	4-4.5 ft	5-5.5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-16-20 00:00	Mar-16-20 00:00	Mar-16-20 00:00	Mar-16-20 00:00	Mar-16-20 00:00	Mar-16-20 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-17-20 15:15	Mar-17-20 15:15	Mar-17-20 15:15	Mar-17-20 15:15	Mar-17-20 15:15	Mar-17-20 15:15
	<i>Analyzed:</i>	Mar-17-20 19:34	Mar-17-20 19:55	Mar-17-20 20:15	Mar-17-20 20:36	Mar-17-20 20:56	Mar-17-20 21:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.200 0.200	0.692 0.400	6.55 0.398	2.53 0.395	3.96 0.399	6.03 0.398
Toluene		0.373 0.200	47.5 0.400	231 D 1.99	52.4 0.395	79.2 0.399	174 D 0.994
Ethylbenzene		0.901 0.200	6.56 0.400	15.3 0.398	5.29 0.395	10.1 0.399	15.2 0.398
m,p-Xylenes		23.8 0.399	155 0.800	455 D 3.98	93.9 0.791	156 0.798	346 D 1.99
o-Xylene		24.2 0.200	46.7 0.400	67.4 0.398	24.2 0.395	44.4 0.399	65.6 0.398
Total Xylenes		48.0 0.200	202 0.400	522 0.398	118 0.395	200 0.399	412 0.398
Total BTEX		49.3 0.200	256 0.400	775 0.398	178 0.395	294 0.399	607 0.398
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00
	<i>Analyzed:</i>	Mar-17-20 18:14	Mar-17-20 18:20	Mar-17-20 18:38	Mar-17-20 18:43	Mar-17-20 18:49	Mar-17-20 18:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		63.1 10.1	425 10.1	4030 10.0	178 10.1	37.1 10.1	338 10.0
TPH By SW8015 Mod	<i>Extracted:</i>	Mar-17-20 16:00	Mar-17-20 16:00	Mar-17-20 16:00	Mar-17-20 16:00	Mar-17-20 16:00	*** ** ** **
	<i>Analyzed:</i>	Mar-17-20 16:01	Mar-17-20 21:12	Mar-17-20 21:33	Mar-17-20 21:53	Mar-17-20 22:13	Mar-17-20 20:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		2910 50.2	8760 249	11900 251	8630 250	8060 251	9940 250
Diesel Range Organics (DRO)		3770 50.2	4730 249	5690 251	4270 250	4020 251	4350 250
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<249 249	<251 251	<250 250	<251 251	<250 250
Total TPH		6680 50.2	13500 249	17600 251	12900 250	12100 251	14300 250

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 655975

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Fed 2 TB

Project Id: 212C-MD-02003

Contact: Mike Carmona

Project Location: Eddy Co, NM

Date Received in Lab: Tue Mar-17-20 02:13 pm

Report Date: 20-MAR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	655975-007	655975-008	655975-009	655975-010	655975-011	655975-012
	Field Id:	Trench 1 (6-6.5')	Trench 1 (7-7.5')	Trench 1 (8-8.5')	Trench 1 (9-9.5')	Trench 1 (10')	Trench 1 (11')
	Depth:	6-6.5 ft	7-7.5 ft	8-8.5 ft	9-9.5 ft	10-1 ft	11-1 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-16-20 00:00	Mar-16-20 00:00	Mar-16-20 00:00	Mar-16-20 00:00	Mar-17-20 00:00	Mar-17-20 00:00
BTEX by EPA 8021B	Extracted:	Mar-17-20 15:15	Mar-18-20 11:00	Mar-18-20 11:00	Mar-19-20 13:34	Mar-19-20 13:34	Mar-19-20 13:34
	Analyzed:	Mar-17-20 21:37	Mar-18-20 15:48	Mar-18-20 16:08	Mar-19-20 17:06	Mar-19-20 17:26	Mar-19-20 18:48
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		2.72 0.399	2.01 0.998	3.78 1.00	6.87 3.99	6.85 4.01	8.39 4.03
Toluene		69.3 0.399	61.7 0.998	83.9 1.00	175 3.99	247 4.01	262 4.03
Ethylbenzene		8.54 0.399	8.04 0.998	9.96 1.00	18.0 3.99	28.4 4.01	28.4 4.03
m,p-Xylenes		143 0.798	144 2.00	175 2.00	306 7.98	502 8.02	476 8.06
o-Xylene		37.0 0.399	34.4 0.998	41.7 1.00	77.0 3.99	127 4.01	123 4.03
Total Xylenes		180 0.399	178 0.998	217 1.00	383 3.99	629 4.01	599 4.03
Total BTEX		261 0.399	250 0.998	314 1.00	583 3.99	911 4.01	898 4.03
Inorganic Anions by EPA 300/300.1	Extracted:	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00	Mar-17-20 17:00
	Analyzed:	Mar-17-20 19:01	Mar-17-20 19:06	Mar-17-20 19:12	Mar-17-20 19:30	Mar-17-20 19:47	Mar-17-20 19:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		61.4 9.98	364 9.92	241 10.0	78.4 10.0	1040 10.1	689 9.96
TPH By SW8015 Mod	Extracted:	** ** *	Mar-18-20 16:30	Mar-18-20 16:30	Mar-18-20 14:50	Mar-18-20 14:50	Mar-18-20 14:50
	Analyzed:	Mar-17-20 16:48	Mar-18-20 17:06	Mar-18-20 17:28	Mar-18-20 17:48	Mar-18-20 18:09	Mar-18-20 16:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		4350 49.8	8200 251	10200 249	12300 251	16500 249	14200 249
Diesel Range Organics (DRO)		2090 49.8	4140 251	4930 249	5800 251	10600 249	7360 249
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<251 251	<249 249	<251 251	<249 249	<249 249
Total TPH		6440 49.8	12300 251	15100 249	18100 251	27100 249	21600 249

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Manager



Certificate of Analysis Summary 655975

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Fed 2 TB

Project Id: 212C-MD-02003

Contact: Mike Carmona

Project Location: Eddy Co, NM

Date Received in Lab: Tue Mar-17-20 02:13 pm

Report Date: 20-MAR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	655975-013	655975-014				
	Field Id:	Trench 1 (12')	Trench 1 (13')				
	Depth:	12-1 ft	13-1 ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Mar-17-20 00:00	Mar-17-20 00:00				
BTEX by EPA 8021B	Extracted:	Mar-19-20 13:34	Mar-19-20 13:34				
	Analyzed:	Mar-19-20 19:08	Mar-19-20 19:29				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		4.19 2.00	3.38 1.98				
Toluene		149 2.00	99.9 1.98				
Ethylbenzene		15.9 2.00	11.1 1.98				
m,p-Xylenes		278 3.99	196 3.97				
o-Xylene		70.4 2.00	49.3 1.98				
Total Xylenes		348 2.00	245 1.98				
Total BTEX		517 2.00	360 1.98				
Inorganic Anions by EPA 300/300.1	Extracted:	Mar-17-20 17:00	Mar-17-20 17:00				
	Analyzed:	Mar-17-20 19:58	Mar-17-20 20:04				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		570 9.98	242 9.92				
TPH By SW8015 Mod	Extracted:	Mar-18-20 14:50	Mar-18-20 14:50				
	Analyzed:	Mar-18-20 17:06	Mar-18-20 17:28				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		5820 249	8160 251				
Diesel Range Organics (DRO)		4100 249	4440 251				
Motor Oil Range Hydrocarbons (MRO)		<249 249	<251 251				
Total TPH		9920 249	12600 251				

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Jessica Kramer
Project Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120049

Sample: 655975-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 16:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	52.0	50.2	104	70-135	

Lab Batch #: 3120026

Sample: 655975-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 16:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	131	99.5	132	70-135	
o-Terphenyl	53.9	49.8	108	70-135	

Lab Batch #: 3120001

Sample: 655975-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 19:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3120001

Sample: 655975-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 19:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0253	0.0300	84	70-130	
4-Bromofluorobenzene	0.0323	0.0300	108	70-130	

Lab Batch #: 3120001

Sample: 655975-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 20:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120001

Sample: 655975-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 20:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	70-130	

Lab Batch #: 3120026

Sample: 655975-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 20:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	99.9	86	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 3120001

Sample: 655975-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 20:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

Lab Batch #: 3120049

Sample: 655975-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 21:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.7	99.5	93	70-135	
o-Terphenyl	54.8	49.8	110	70-135	

Lab Batch #: 3120001

Sample: 655975-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 21:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	70-130	
4-Bromofluorobenzene	0.0384	0.0300	128	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120049

Sample: 655975-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 21:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.2	101	80	70-135	
o-Terphenyl	55.5	50.3	110	70-135	

Lab Batch #: 3120001

Sample: 655975-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 21:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	70-130	

Lab Batch #: 3120049

Sample: 655975-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 21:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.6	100	78	70-135	
o-Terphenyl	53.2	50.1	106	70-135	

Lab Batch #: 3120049

Sample: 655975-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 22:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.9	100	78	70-135	
o-Terphenyl	56.6	50.2	113	70-135	

Lab Batch #: 3120167

Sample: 655975-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 15:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0282	0.0300	94	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120167

Sample: 655975-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 16:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

Lab Batch #: 3120217

Sample: 655975-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 16:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	99.1	99.7	99	70-135	
o-Terphenyl	55.5	49.9	111	70-135	

Lab Batch #: 3120220

Sample: 655975-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 17:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	94.0	100	94	70-135	
o-Terphenyl	53.9	50.1	108	70-135	

Lab Batch #: 3120217

Sample: 655975-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 17:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	95.0	99.5	95	70-135	
o-Terphenyl	60.8	49.8	122	70-135	

Lab Batch #: 3120220

Sample: 655975-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 17:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.6	99.7	98	70-135	
o-Terphenyl	55.8	49.9	112	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120217

Sample: 655975-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 17:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.5	100	82	70-135	
o-Terphenyl	62.9	50.2	125	70-135	

Lab Batch #: 3120220

Sample: 655975-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 17:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	101	115	70-135	
o-Terphenyl	55.7	50.3	111	70-135	

Lab Batch #: 3120220

Sample: 655975-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 18:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.5	114	70-135	
o-Terphenyl	57.1	49.8	115	70-135	

Lab Batch #: 3120331

Sample: 655975-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 17:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	70-130	
4-Bromofluorobenzene	0.0280	0.0300	93	70-130	

Lab Batch #: 3120331

Sample: 655975-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 17:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0298	0.0300	99	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120331

Sample: 655975-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 18:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3120331

Sample: 655975-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 19:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3120331

Sample: 655975-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 19:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3120026

Sample: 7699135-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 13:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	100	91	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

Lab Batch #: 3120049

Sample: 7699137-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 13:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	100	86	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120001

Sample: 7699108-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 16:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0291	0.0300	97	70-130	

Lab Batch #: 3120167

Sample: 7699151-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 11:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	70-130	
4-Bromofluorobenzene	0.0264	0.0300	88	70-130	

Lab Batch #: 3120217

Sample: 7699257-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 14:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.1	100	89	70-135	
o-Terphenyl	49.2	50.0	98	70-135	

Lab Batch #: 3120220

Sample: 7699259-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 14:02

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 3120331

Sample: 7699269-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/19/20 12:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120026

Sample: 7699135-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 14:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	55.8	50.0	112	70-135	

Lab Batch #: 3120049

Sample: 7699137-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 14:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	55.6	50.0	111	70-135	

Lab Batch #: 3120001

Sample: 7699108-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 17:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0274	0.0300	91	70-130	

Lab Batch #: 3120167

Sample: 7699151-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 11:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0241	0.0300	80	70-130	

Lab Batch #: 3120217

Sample: 7699257-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 14:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120220

Sample: 7699259-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 14:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	56.1	50.0	112	70-135	

Lab Batch #: 3120331

Sample: 7699269-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/19/20 12:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	70-130	
4-Bromofluorobenzene	0.0279	0.0300	93	70-130	

Lab Batch #: 3120026

Sample: 7699135-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 14:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	54.8	50.0	110	70-135	

Lab Batch #: 3120049

Sample: 7699137-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 14:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	50.1	50.0	100	70-135	

Lab Batch #: 3120001

Sample: 7699108-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/17/20 17:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0275	0.0300	92	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120167

Sample: 7699151-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 12:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0258	0.0300	86	70-130	

Lab Batch #: 3120217

Sample: 7699257-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 14:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

Lab Batch #: 3120220

Sample: 7699259-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/18/20 14:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 3120331

Sample: 7699269-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/19/20 13:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	70-130	
4-Bromofluorobenzene	0.0284	0.0300	95	70-130	

Lab Batch #: 3120026

Sample: 655954-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 15:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	59.2	50.2	118	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120049

Sample: 655954-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 15:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 3120001

Sample: 655954-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 17:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0273	0.0300	91	70-130	

Lab Batch #: 3120167

Sample: 656032-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 12:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3120217

Sample: 656032-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 15:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.5	119	70-135	
o-Terphenyl	53.9	49.8	108	70-135	

Lab Batch #: 3120220

Sample: 656034-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 15:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	57.6	50.2	115	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120331

Sample: 656196-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 13:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0287	0.0300	96	70-130	

Lab Batch #: 3120026

Sample: 655954-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 15:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	57.5	50.2	115	70-135	

Lab Batch #: 3120049

Sample: 655954-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 15:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.7	116	70-135	
o-Terphenyl	51.9	49.9	104	70-135	

Lab Batch #: 3120001

Sample: 655954-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/17/20 18:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0277	0.0300	92	70-130	

Lab Batch #: 3120167

Sample: 656032-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 12:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	70-130	
4-Bromofluorobenzene	0.0270	0.0300	90	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Orders : 655975,

Project ID: 212C-MD-02003

Lab Batch #: 3120217

Sample: 656032-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 15:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	61.5	50.2	123	70-135	

Lab Batch #: 3120220

Sample: 656034-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/18/20 15:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	57.4	50.1	115	70-135	

Lab Batch #: 3120331

Sample: 656196-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/19/20 13:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Analyst: MAB

Date Prepared: 03/17/2020

Date Analyzed: 03/17/2020

Lab Batch ID: 3120001

Sample: 7699108-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.0995	100	0.100	0.0998	100	0	70-130	35	
Toluene	<0.00200	0.100	0.0968	97	0.100	0.0988	99	2	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.100	0.0955	96	2	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.200	0.197	99	2	70-135	35	
o-Xylene	<0.00200	0.100	0.0970	97	0.100	0.0984	98	1	71-133	35	

Analyst: MRB

Date Prepared: 03/18/2020

Date Analyzed: 03/18/2020

Lab Batch ID: 3120167

Sample: 7699151-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.111	111	0.100	0.118	118	6	70-130	35	
Toluene	<0.00200	0.100	0.102	102	0.100	0.107	107	5	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.100	0.0996	100	4	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.200	0.194	97	4	70-135	35	
o-Xylene	<0.00200	0.100	0.0917	92	0.100	0.0979	98	7	71-133	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Analyst: MAB

Date Prepared: 03/19/2020

Date Analyzed: 03/19/2020

Lab Batch ID: 3120331

Sample: 7699269-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.108	108	0.100	0.104	104	4	70-130	35	
Toluene	<0.00200	0.100	0.104	104	0.100	0.0995	100	4	70-130	35	
Ethylbenzene	<0.00200	0.100	0.100	100	0.100	0.0950	95	5	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.200	0.197	99	5	70-135	35	
o-Xylene	<0.00200	0.100	0.103	103	0.100	0.0982	98	5	71-133	35	

Analyst: MAB

Date Prepared: 03/17/2020

Date Analyzed: 03/17/2020

Lab Batch ID: 3120039

Sample: 7699128-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<10.0	250	259	104	250	261	104	1	90-110	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Analyst: DTH

Date Prepared: 03/17/2020

Date Analyzed: 03/17/2020

Lab Batch ID: 3120026

Sample: 7699135-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	918	92	1000	892	89	3	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1000	1000	100	3	70-135	35	

Analyst: DTH

Date Prepared: 03/17/2020

Date Analyzed: 03/17/2020

Lab Batch ID: 3120049

Sample: 7699137-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	946	95	1000	844	84	11	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1000	918	92	11	70-135	35	

Analyst: DTH

Date Prepared: 03/18/2020

Date Analyzed: 03/18/2020

Lab Batch ID: 3120217

Sample: 7699257-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	829	83	1000	761	76	9	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	905	91	1000	835	84	8	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Analyst: DTH

Date Prepared: 03/18/2020

Date Analyzed: 03/18/2020

Lab Batch ID: 3120220

Sample: 7699259-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1010	101	1000	961	96	5	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1000	1030	103	5	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Lab Batch ID: 3120001

QC- Sample ID: 655954-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/17/2020

Date Prepared: 03/17/2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00198	0.0990	0.0977	99	0.101	0.108	107	10	70-130	35	
Toluene	<0.00198	0.0990	0.0950	96	0.101	0.105	104	10	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0907	92	0.101	0.100	99	10	71-129	35	
m,p-Xylenes	<0.00396	0.198	0.186	94	0.201	0.204	101	9	70-135	35	
o-Xylene	<0.00198	0.0990	0.0947	96	0.101	0.104	103	9	71-133	35	

Lab Batch ID: 3120167

QC- Sample ID: 656032-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/18/2020

Date Prepared: 03/18/2020

Analyst: MRB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0994	0.128	129	0.100	0.122	122	5	70-130	35	
Toluene	<0.00199	0.0994	0.116	117	0.100	0.110	110	5	70-130	35	
Ethylbenzene	<0.00199	0.0994	0.107	108	0.100	0.100	100	7	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.209	105	0.200	0.195	98	7	70-135	35	
o-Xylene	<0.00199	0.0994	0.105	106	0.100	0.0992	99	6	71-133	35	

Matrix Spike Percent Recovery $[D] = 100 \times (C-A)/B$
 Relative Percent Difference $RPD = 200 \times |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Lab Batch ID: 3120331

QC- Sample ID: 656196-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/19/2020

Date Prepared: 03/19/2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.103	103	0.0992	0.104	105	1	70-130	35	
Toluene	<0.00200	0.100	0.0933	93	0.0992	0.0844	85	10	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0877	88	0.0992	0.0770	78	13	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.178	89	0.198	0.153	77	15	70-135	35	
o-Xylene	<0.00200	0.100	0.0916	92	0.0992	0.0828	83	10	71-133	35	

Lab Batch ID: 3120039

QC- Sample ID: 655954-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/17/2020

Date Prepared: 03/17/2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	13.4	200	211	99	200	215	101	2	90-110	20	

Lab Batch ID: 3120039

QC- Sample ID: 655975-009 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/17/2020

Date Prepared: 03/17/2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	241	200	452	106	200	450	105	0	90-110	20	

Matrix Spike Percent Recovery $[D] = 100 \times (C-A)/B$
 Relative Percent Difference $RPD = 200 \times |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Order #: 655975

Project ID: 212C-MD-02003

Lab Batch ID: 3120026

QC- Sample ID: 655954-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/17/2020

Date Prepared: 03/17/2020

Analyst: DTH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	956	96	1000	944	94	1	70-135	35	
Diesel Range Organics (DRO)	<50.2	1000	1110	111	1000	1100	110	1	70-135	35	

Lab Batch ID: 3120049

QC- Sample ID: 655954-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/17/2020

Date Prepared: 03/17/2020

Analyst: DTH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	869	87	997	848	85	2	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	949	95	997	930	93	2	70-135	35	

Lab Batch ID: 3120217

QC- Sample ID: 656032-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/18/2020

Date Prepared: 03/18/2020

Analyst: DTH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	850	85	1000	966	97	13	70-135	35	
Diesel Range Organics (DRO)	<49.8	995	928	93	1000	1070	107	14	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



Form 3 - MS / MSD Recoveries

Project Name: El Paso 23 Fed 2 TB

Work Order # : 655975

Project ID: 212C-MD-02003

Lab Batch ID: 3120220

QC- Sample ID: 656034-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/18/2020

Date Prepared: 03/18/2020

Analyst: DTH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	922	92	1000	950	95	3	70-135	35	
Diesel Range Organics (DRO)	<50.2	1000	1020	102	1000	1040	104	2	70-135	35	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$
 Relative Percent Difference RPD = $200 \times |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery [G] = $100 \times (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Tetra Tech, Inc.

Mike Carmona

212C-MD-02003

Conner Moehring

Run deeper samples if TPH (GRO + DRO + MRO) exceeds 100 mg/kg. Run deeper samples if benzene exceeds 10 mg/kg or Total BTEX exceeds 50 mg/kg.

BTEX 8260B

BTEX 8021B BTEX 82

×	BTEX 8021B	BTEX 82
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×	×	BTEX 8021B	BTEX 82
---	---	------------	---------

×	×	×	BTEX 8021B	BTEX 82
---	---	---	------------	---------

×	×	×	×	BTEX 8021B	BTEX 82
---	---	---	---	------------	---------

×	×	×	×	×	BTEX 8021B	BTEX 82
---	---	---	---	---	------------	---------

X	X	X	X	X	X	BTEX 8021B	BTEX 82
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[illegible][illegible]

	X	X	X	X	X	X	BTEX 8021B BTEX 82
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		X	X	X	X	X	X	BTEX 8021B BTEX 82
--	--	---	---	---	---	---	---	--------------------

			X	X	X	X	X	X	BTEX 8021B BTEX 82
--	--	--	---	---	---	---	---	---	--------------------

			X	X	X	X	X	X	BTEX 8021B BTEX 82
--	--	--	---	---	---	---	---	---	--------------------

[illegible][illegible]

			X	X	X	X	X	X	BTEX 8021B BTEX 82
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[illegible]

(Circle or Specify Method No.)

Hold

Released to Imaging: 8/11/2021 1:25:05 PM

Analysis Request of Custody Record



Tetra Tech, Inc.

 901W Wall Street, Ste 100
 Midland, Texas 79705
 Tel (432) 682-4559
 Fax (432) 682-3946

Page 2 of 2

Client Name: EOG Site Manager: Mike Carmona

Project Name: El Paso 23 Fed 2 TB

Project Location: Eddy Co, NM Project #: 212C-MD-02003

Invoice to: EOG - Todd Wells

Receiving Laboratory: Xenco Sampler Signature: Conner Moehring

Comments: Run deeper samples if TPH (GRO + DRO + MRO) exceeds 100 mg/kg. Run deeper samples if benzene exceeds 10 mg/kg or Total BTEX exceeds 50 mg/kg.

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)		
		DATE	TIME	WATER	SOIL	HCL	HNO ₃				ICE	None
	Trench 1 (10')	3/17/2020		X		X		1	N	BTEX 8021B BTEX 8260B		
	Trench 1 (11')	3/17/2020		X		X		1	N	TPH TX1005 (Ext to C35)		
	Trench 1 (12')	3/17/2020		X		X		1	N	TPH 8015M (GRO - DRO - ORO - MRO)		
	Trench 1 (13')	3/17/2020		X		X		1	N	PAH 8270C		
										Total Metals Ag As Ba Cd Cr Pb Se Hg		
										TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
										TCLP Volatiles		
										TCLP Semi Volatiles		
										RCI		
										GC/MS Vol. 8260B / 624		
										GC/MS Semi. Vol. 8270C/625		
										PCB's 8082 / 608		
										NORM		
										PLM (Asbestos)		
										Chloride		
										Chloride Sulfate TDS		
										General Water Chemistry (see attached list)		
										Anion/Cation Balance		
										Hold		

Inquired by: <i>John Myerling</i> Date: 3/17/20 Time: 14:13 Received by: <i>CEH</i> Date: 3/17/20 Time: 14:13	Inquired by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____
--	--

LAB USE ONLY Sample Temperature: 28	REMARKS: ☐ STANDARD ☒ RUSH: Same Day 24 hr 48 hr 72 hr ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report
--	--

ORIGINAL COPY

1055975

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 03.17.2020 02.13.00 PM

Work Order #: 655975

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 03.17.2020

Checklist reviewed by:



Martha Castro

Date: 03.19.2020



Xenco

Certificate of Analysis Summary 664790

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Federal Tank Battery

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 06.18.2020 10:44**Report Date:** 07.02.2020 09:47**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	664790-001	664790-002	664790-003	664790-004	664790-005	664790-006
	<i>Field Id:</i>	BH-1 0-1'	BH-1 2'-3'	BH-1 4'-5'	BH-1 6'-7'	BH-1 9'-10'	BH-1 14'-15'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30
	<i>Analyzed:</i>	06.26.2020 03:27	06.26.2020 03:48	06.26.2020 04:08	06.26.2020 04:28	06.26.2020 04:49	06.26.2020 05:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	0.00522 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		0.00262 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		0.00262 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		0.00262 0.00201	0.00522 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	06.19.2020 15:40	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10
	<i>Analyzed:</i>	06.20.2020 00:38	06.19.2020 17:42	06.19.2020 17:57	06.19.2020 18:02	06.19.2020 18:07	06.19.2020 18:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		234 25.0	32.9 5.01	16.3 4.98	15.4 4.95	28.8 4.95	86.8 49.5
TPH By SW8015 Mod	<i>Extracted:</i>	06.20.2020 11:00	06.20.2020 11:00	06.20.2020 11:00	06.20.2020 11:00	06.20.2020 11:00	06.20.2020 11:00
	<i>Analyzed:</i>	06.21.2020 00:09	06.21.2020 01:05	06.21.2020 01:24	06.21.2020 01:42	06.21.2020 02:01	06.21.2020 02:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		568 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Total TPH		568 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Certificate of Analysis Summary 664790

Tetra Tech- Midland, Midland, TX

Project Name: El Paso 23 Federal Tank Battery

Project Id: 212C-MD-02003
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Thu 06.18.2020 10:44
Report Date: 07.02.2020 09:47
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	664790-007	664790-008	664790-009	664790-010	664790-011	664790-012
	<i>Field Id:</i>	BH-1 19'-20'	BH-1 24'-25'	BH-1 29'-30'	BH-1 34'-35'	BH-1 39'-40'	BH-1 44'-45'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00	06.16.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30	06.25.2020 16:30
	<i>Analyzed:</i>	06.26.2020 08:15	06.26.2020 05:30	06.26.2020 08:35	06.26.2020 05:50	06.26.2020 06:10	06.26.2020 06:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.105 0.0998	<0.00200 0.00200	0.0414 0.0400	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Toluene		2.04 0.0998	<0.00200 0.00200	0.0412 0.0400	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		3.18 0.0998	<0.00200 0.00200	0.211 0.0400	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		19.1 0.200	<0.00401 0.00401	0.771 0.0800	<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		4.45 0.0998	<0.00200 0.00200	0.214 0.0400	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		23.6 0.0998	<0.00200 0.00200	0.985 0.0400	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		28.9 0.0998	<0.00200 0.00200	1.28 0.0400	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10	06.19.2020 17:10
	<i>Analyzed:</i>	06.19.2020 18:28	06.19.2020 18:33	06.19.2020 18:38	06.19.2020 18:43	06.19.2020 18:48	06.19.2020 18:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		92.6 50.4	75.1 49.5	782 25.0	173 24.9	112 5.03	126 5.05
TPH By SW8015 Mod	<i>Extracted:</i>	06.20.2020 11:00	06.19.2020 15:00	06.19.2020 15:00	06.19.2020 15:00	06.19.2020 15:00	06.19.2020 15:00
	<i>Analyzed:</i>	06.21.2020 02:39	06.20.2020 04:27	06.20.2020 04:48	06.20.2020 05:09	06.20.2020 05:31	06.20.2020 05:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		1160 49.9	<50.0 50.0	122 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		1520 49.9	<50.0 50.0	491 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Total TPH		2680 49.9	<50.0 50.0	613 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Xenco

Analytical Report 664790

for

Tetra Tech- Midland

Project Manager: Mike Carmona

El Paso 23 Federal Tank Battery

212C-MD-02003

07.02.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.02.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **664790**

El Paso 23 Federal Tank Battery

Project Address: Eddy County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 664790. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 664790 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 664790****Tetra Tech- Midland, Midland, TX**

El Paso 23 Federal Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 0'-1'	S	06.16.2020 00:00		664790-001
BH-1 2'-3'	S	06.16.2020 00:00		664790-002
BH-1 4'-5'	S	06.16.2020 00:00		664790-003
BH-1 6'-7'	S	06.16.2020 00:00		664790-004
BH-1 9'-10'	S	06.16.2020 00:00		664790-005
BH-1 14'-15'	S	06.16.2020 00:00		664790-006
BH-1 19'-20'	S	06.16.2020 00:00		664790-007
BH-1 24'-25'	S	06.16.2020 00:00		664790-008
BH-1 29'-30'	S	06.16.2020 00:00		664790-009
BH-1 34'-35'	S	06.16.2020 00:00		664790-010
BH-1 39'-40'	S	06.16.2020 00:00		664790-011
BH-1 44'-45'	S	06.16.2020 00:00		664790-012



Xenco

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: El Paso 23 Federal Tank Battery

Project ID: 212C-MD-02003
Work Order Number(s): 664790

Report Date: 07.02.2020
Date Received: 06.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3129568 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7705874-1-BLK.



Xenco

Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 0-1'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-001

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 15:40

Basis: Wet Weight

Seq Number: 3129542

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	234	25.0	mg/kg	06.20.2020 00:38		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 00:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	568	50.0	mg/kg	06.21.2020 00:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 00:09	U	1
Total TPH	PHC635	568	50.0	mg/kg	06.21.2020 00:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	06.21.2020 00:09	
o-Terphenyl	84-15-1	125	%	70-130	06.21.2020 00:09	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 0-1'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-001

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.26.2020 03:27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.26.2020 03:27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.26.2020 03:27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.26.2020 03:27	U	1
o-Xylene	95-47-6	0.00262	0.00201	mg/kg	06.26.2020 03:27		1
Total Xylenes	1330-20-7	0.00262	0.00201	mg/kg	06.26.2020 03:27		1
Total BTEX		0.00262	0.00201	mg/kg	06.26.2020 03:27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.26.2020 03:27		
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.26.2020 03:27		



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 2'-3'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-002

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.9	5.01	mg/kg	06.19.2020 17:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.21.2020 01:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	06.21.2020 01:05	
o-Terphenyl	84-15-1	117	%	70-130	06.21.2020 01:05	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 2'-3'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-002

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Ethylbenzene	100-41-4	0.00522	0.00200	mg/kg	06.26.2020 03:48		1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.26.2020 03:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.26.2020 03:48	U	1
Total BTEX		0.00522	0.00200	mg/kg	06.26.2020 03:48		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	06.26.2020 03:48		
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.26.2020 03:48		



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 4'-5'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-003

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.3	4.98	mg/kg	06.19.2020 17:57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.21.2020 01:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	06.21.2020 01:24	
o-Terphenyl	84-15-1	120	%	70-130	06.21.2020 01:24	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 4'-5'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-003

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 04:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 04:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.26.2020 04:08		
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.26.2020 04:08		



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 6'-7'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-004

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.4	4.95	mg/kg	06.19.2020 18:02		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.21.2020 01:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	06.21.2020 01:42	
o-Terphenyl	84-15-1	115	%	70-130	06.21.2020 01:42	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 6'-7'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-004

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 04:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 04:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 04:28		
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.26.2020 04:28		



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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 9'-10'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-005

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.8	4.95	mg/kg	06.19.2020 18:07		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.21.2020 02:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	06.21.2020 02:01	
o-Terphenyl	84-15-1	121	%	70-130	06.21.2020 02:01	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 9'-10'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-005

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.26.2020 04:49	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.26.2020 04:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.26.2020 04:49		
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.26.2020 04:49		



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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 14'-15'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-006

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.8	49.5	mg/kg	06.19.2020 18:12		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.21.2020 02:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	06.21.2020 02:20	
o-Terphenyl	84-15-1	123	%	70-130	06.21.2020 02:20	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 14'-15'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-006

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.26.2020 05:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.26.2020 05:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 05:09		
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.26.2020 05:09		



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 19'-20'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-007

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	92.6	50.4	mg/kg	06.19.2020 18:28		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.20.2020 11:00

Basis: Wet Weight

Seq Number: 3129568

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1160	49.9	mg/kg	06.21.2020 02:39		1
Diesel Range Organics (DRO)	C10C28DRO	1520	49.9	mg/kg	06.21.2020 02:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.21.2020 02:39	U	1
Total TPH	PHC635	2680	49.9	mg/kg	06.21.2020 02:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	06.21.2020 02:39	
o-Terphenyl	84-15-1	128	%	70-130	06.21.2020 02:39	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 19'-20'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-007

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.105	0.0998	mg/kg	06.26.2020 08:15		50
Toluene	108-88-3	2.04	0.0998	mg/kg	06.26.2020 08:15		50
Ethylbenzene	100-41-4	3.18	0.0998	mg/kg	06.26.2020 08:15		50
m,p-Xylenes	179601-23-1	19.1	0.200	mg/kg	06.26.2020 08:15		50
o-Xylene	95-47-6	4.45	0.0998	mg/kg	06.26.2020 08:15		50
Total Xylenes	1330-20-7	23.6	0.0998	mg/kg	06.26.2020 08:15		50
Total BTEX		28.9	0.0998	mg/kg	06.26.2020 08:15		50
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.26.2020 08:15		
4-Bromofluorobenzene	460-00-4	114	%	70-130	06.26.2020 08:15		



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 24'-25'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-008

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	75.1	49.5	mg/kg	06.19.2020 18:33		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.19.2020 15:00

Basis: Wet Weight

Seq Number: 3129565

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 04:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	06.20.2020 04:27	
o-Terphenyl	84-15-1	94	%	70-130	06.20.2020 04:27	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 24'-25'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-008

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.26.2020 05:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.26.2020 05:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 05:30		
4-Bromofluorobenzene	460-00-4	100	%	70-130	06.26.2020 05:30		



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 29'-30'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-009

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	782	25.0	mg/kg	06.19.2020 18:38		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.19.2020 15:00

Basis: Wet Weight

Seq Number: 3129565

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	122	49.9	mg/kg	06.20.2020 04:48		1
Diesel Range Organics (DRO)	C10C28DRO	491	49.9	mg/kg	06.20.2020 04:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 04:48	U	1
Total TPH	PHC635	613	49.9	mg/kg	06.20.2020 04:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	06.20.2020 04:48	
o-Terphenyl	84-15-1	104	%	70-130	06.20.2020 04:48	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 29'-30'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-009

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0414	0.0400	mg/kg	06.26.2020 08:35		20
Toluene	108-88-3	0.0412	0.0400	mg/kg	06.26.2020 08:35		20
Ethylbenzene	100-41-4	0.211	0.0400	mg/kg	06.26.2020 08:35		20
m,p-Xylenes	179601-23-1	0.771	0.0800	mg/kg	06.26.2020 08:35		20
o-Xylene	95-47-6	0.214	0.0400	mg/kg	06.26.2020 08:35		20
Total Xylenes	1330-20-7	0.985	0.0400	mg/kg	06.26.2020 08:35		20
Total BTEX		1.28	0.0400	mg/kg	06.26.2020 08:35		20
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.26.2020 08:35		
4-Bromofluorobenzene	460-00-4	93	%	70-130	06.26.2020 08:35		



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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: BH-1 34'-35'

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-010

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	173	24.9	mg/kg	06.19.2020 18:43		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.19.2020 15:00

Basis: Wet Weight

Seq Number: 3129565

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 05:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	06.20.2020 05:09	
o-Terphenyl	84-15-1	95	%	70-130	06.20.2020 05:09	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 34'-35'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-010

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 05:50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 05:50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.26.2020 05:50		
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.26.2020 05:50		



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Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: BH-1 39'-40'

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-011

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	5.03	mg/kg	06.19.2020 18:48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.19.2020 15:00

Basis: Wet Weight

Seq Number: 3129565

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 05:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	06.20.2020 05:31	
o-Terphenyl	84-15-1	100	%	70-130	06.20.2020 05:31	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 39'-40'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-011

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.26.2020 06:10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.26.2020 06:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.26.2020 06:10		
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.26.2020 06:10		



Xenco

Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: BH-1 44'-45'

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-012

Date Collected: 06.16.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 06.19.2020 17:10

Basis: Wet Weight

Seq Number: 3129543

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	126	5.05	mg/kg	06.19.2020 18:53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.19.2020 15:00

Basis: Wet Weight

Seq Number: 3129565

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.20.2020 05:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	06.20.2020 05:52	
o-Terphenyl	84-15-1	96	%	70-130	06.20.2020 05:52	



Certificate of Analytical Results 664790

Tetra Tech- Midland, Midland, TX

El Paso 23 Federal Tank Battery

Sample Id: **BH-1 44'-45'**

Matrix: Soil

Date Received: 06.18.2020 10:44

Lab Sample Id: 664790-012

Date Collected: 06.16.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.25.2020 16:30

Basis: Wet Weight

Seq Number: 3130050

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.26.2020 06:31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.26.2020 06:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.26.2020 06:31		
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.26.2020 06:31		



Xenco

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129542

Matrix: Solid

Prep Method: E300P

Date Prep: 06.19.2020

MB Sample Id: 7705823-1-BLK

LCS Sample Id: 7705823-1-BKS

LCSD Sample Id: 7705823-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	254	102	254	102	90-110	0	20	mg/kg	06.19.2020 21:34	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129543

Matrix: Solid

Prep Method: E300P

Date Prep: 06.19.2020

MB Sample Id: 7705852-1-BLK

LCS Sample Id: 7705852-1-BKS

LCSD Sample Id: 7705852-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	246	98	230	92	90-110	7	20	mg/kg	06.19.2020 17:32	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129542

Matrix: Soil

Prep Method: E300P

Date Prep: 06.19.2020

Parent Sample Id: 664787-083

MS Sample Id: 664787-083 S

MSD Sample Id: 664787-083 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.9	249	282	106	280	105	90-110	1	20	mg/kg	06.19.2020 21:53	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129542

Matrix: Soil

Prep Method: E300P

Date Prep: 06.19.2020

Parent Sample Id: 664787-093

MS Sample Id: 664787-093 S

MSD Sample Id: 664787-093 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.4	250	280	104	279	103	90-110	0	20	mg/kg	06.19.2020 23:21	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129543

Matrix: Soil

Prep Method: E300P

Date Prep: 06.19.2020

Parent Sample Id: 664790-002

MS Sample Id: 664790-002 S

MSD Sample Id: 664790-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	32.9	251	275	96	297	105	90-110	8	20	mg/kg	06.19.2020 17:47	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3129543

Matrix: Soil

Prep Method: E300P

Date Prep: 06.19.2020

Parent Sample Id: 664790-012

MS Sample Id: 664790-012 S

MSD Sample Id: 664790-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	253	363	94	361	93	90-110	1	20	mg/kg	06.19.2020 18:58	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129565

MB Sample Id: 7705837-1-BLK

Matrix: Solid

LCS Sample Id: 7705837-1-BKS

Prep Method: SW8015P

Date Prep: 06.19.2020

LCSD Sample Id: 7705837-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	883	88	825	83	70-130	7	20	mg/kg	06.19.2020 21:22	
Diesel Range Organics (DRO)	<50.0	1000	908	91	863	86	70-130	5	20	mg/kg	06.19.2020 21:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		93		95		70-130	%	06.19.2020 21:22
o-Terphenyl	94		105		112		70-130	%	06.19.2020 21:22

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129568

MB Sample Id: 7705874-1-BLK

Matrix: Solid

LCS Sample Id: 7705874-1-BKS

Prep Method: SW8015P

Date Prep: 06.20.2020

LCSD Sample Id: 7705874-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	1130	113	70-130	4	20	mg/kg	06.20.2020 23:32	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1170	117	70-130	3	20	mg/kg	06.20.2020 23:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		92		87		70-130	%	06.20.2020 23:32
o-Terphenyl	135	**	129		74		70-130	%	06.20.2020 23:32

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129565

Matrix: Solid

MB Sample Id: 7705837-1-BLK

Prep Method: SW8015P

Date Prep: 06.19.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 21:01	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129568

Matrix: Solid

MB Sample Id: 7705874-1-BLK

Prep Method: SW8015P

Date Prep: 06.20.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.20.2020 23:13	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129565

Parent Sample Id: 664787-081

Matrix: Soil

MS Sample Id: 664787-081 S

Prep Method: SW8015P

Date Prep: 06.19.2020

MSD Sample Id: 664787-081 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	839	84	891	89	70-130	6	20	mg/kg	06.19.2020 22:26	
Diesel Range Organics (DRO)	<49.9	997	874	88	865	87	70-130	1	20	mg/kg	06.19.2020 22:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		86		70-130	%	06.19.2020 22:26
o-Terphenyl	98		96		70-130	%	06.19.2020 22:26

Analytical Method: TPH By SW8015 Mod

Seq Number: 3129568

Parent Sample Id: 664790-001

Matrix: Soil

MS Sample Id: 664790-001 S

Prep Method: SW8015P

Date Prep: 06.20.2020

MSD Sample Id: 664790-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1040	104	1030	103	70-130	1	20	mg/kg	06.21.2020 00:28	
Diesel Range Organics (DRO)	568	998	1770	120	1730	117	70-130	2	20	mg/kg	06.21.2020 00:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		128		70-130	%	06.21.2020 00:28
o-Terphenyl	99		128		70-130	%	06.21.2020 00:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130050

MB Sample Id: 7706239-1-BLK

Matrix: Solid

LCS Sample Id: 7706239-1-BKS

Prep Method: SW5035A

Date Prep: 06.25.2020

LCSD Sample Id: 7706239-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0914	91	0.0921	92	70-130	1	35	mg/kg	06.26.2020 01:24	
Toluene	<0.00200	0.100	0.0926	93	0.0925	93	70-130	0	35	mg/kg	06.26.2020 01:24	
Ethylbenzene	<0.00200	0.100	0.0933	93	0.0943	94	70-130	1	35	mg/kg	06.26.2020 01:24	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.191	96	70-130	2	35	mg/kg	06.26.2020 01:24	
o-Xylene	<0.00200	0.100	0.0950	95	0.0970	97	70-130	2	35	mg/kg	06.26.2020 01:24	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		98		70-130	%	06.26.2020 01:24
4-Bromofluorobenzene	97		97		98		70-130	%	06.26.2020 01:24

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Tetra Tech- Midland

El Paso 23 Federal Tank Battery

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130050

Parent Sample Id: 664790-004

Matrix: Soil

MS Sample Id: 664790-004 S

Prep Method: SW5035A

Date Prep: 06.25.2020

MSD Sample Id: 664790-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0881	89	0.0873	88	70-130	1	35	mg/kg	06.26.2020 02:05	
Toluene	<0.00199	0.0994	0.0886	89	0.0890	90	70-130	0	35	mg/kg	06.26.2020 02:05	
Ethylbenzene	<0.00199	0.0994	0.0892	90	0.0899	90	70-130	1	35	mg/kg	06.26.2020 02:05	
m,p-Xylenes	<0.00398	0.199	0.176	88	0.179	90	70-130	2	35	mg/kg	06.26.2020 02:05	
o-Xylene	<0.00199	0.0994	0.0893	90	0.0904	91	70-130	1	35	mg/kg	06.26.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		97		70-130	%	06.26.2020 02:05
4-Bromofluorobenzene	100		100		70-130	%	06.26.2020 02:05

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Analysis Request of Custody Record



Tetra Tech, Inc.

900 West Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG Site Manager: Mike Carmona

Project Name: El Paso 23 Federal Tank Battery

Project Location: Eddy County, New Mexico

Project #: 212C-MD-02003

Invoice to: Todd Wells

Receiving Laboratory: Xenco

Sampler Signature: Devin Dominguez

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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										BTEX 8021B			TPH TX1005 (Ext to 1000)	TPH 8015M (GRO)	PAH 8270C	Total Metals Ag As B Cd Cr Cu Hg Mn Ni Pb Se V Zn	TCLP Metals Ag As B Cd Cr Cu Hg Mn Ni Pb Se V Zn	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B	GC/MS Semi. Vol. 8260B	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate	General Water Chem	Anion/Cation Balance	TPH 8015R																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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LAB USE ONLY	REMARKS:
☒ STANDARD	
☐ RUSH: Same Day 24 hr 48 hr 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

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Page 2 of 2



900 West Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

LAB USE
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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 06.18.2020 10.44.00 AM

Work Order #: 664790

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes BTEX was in bulk container
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 06.18.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.19.2020



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-319-1

Laboratory Sample Delivery Group: 212c-md-02003

Client Project/Site: El Paso 23 Federal Tank Battery #2

For:

Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

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

Authorized for release by:
3/16/2021 6:48:50 PM

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

LINKS

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results through

TotalAccess

Have a Question?



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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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Laboratory Job ID: 890-319-1
SDG: 212c-md-02003

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	19
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: Tetra Tech, Inc.

Job ID: 890-319-1

Project/Site: El Paso 23 Federal Tank Battery #2

SDG: 212c-md-02003

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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Job ID: 890-319-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-319-1

Receipt

The samples were received on 3/10/2021 4:58 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 6.0°C

Receipt Exceptions

The following samples analyzed for method BTEX8021 were received and analyzed from an unpreserved bulk soil jar: T-2 (0-1') (890-319-1), T-2 (5') (890-319-2), T-2 (10') (890-319-3), T-2 (15') (890-319-4), T-2 (20') (890-319-5), T-3 (0-1') (890-319-6), T-3 (5') (890-319-7), T-3 (10') (890-319-8) and T-3 (15') (890-319-9).

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-2 (0-1')

Lab Sample ID: 890-319-1

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	253		5.04		mg/kg		03/11/21 13:50	03/11/21 15:22	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	1820		49.9		mg/kg		03/11/21 17:00	03/12/21 02:30	1
Gasoline Range Hydrocarbons (GRO)	3490		49.9		mg/kg		03/11/21 17:00	03/12/21 02:30	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/11/21 17:00	03/12/21 02:30	1
Total TPH	5310		49.9		mg/kg		03/11/21 17:00	03/12/21 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	**	70 - 135	03/11/21 17:00	03/12/21 02:30	1
o-Terphenyl	80		70 - 135	03/11/21 17:00	03/12/21 02:30	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/11/21 14:00	03/12/21 03:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/11/21 14:00	03/12/21 03:08	1
m,p-Xylenes	<0.00399	U	0.00399		mg/kg		03/11/21 14:00	03/12/21 03:08	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/11/21 14:00	03/12/21 03:08	1
Toluene	<0.00200	U	0.00200		mg/kg		03/11/21 14:00	03/12/21 03:08	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/11/21 14:00	03/12/21 03:08	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/11/21 14:00	03/12/21 03:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene		**	70 - 130	03/11/21 14:00	03/12/21 03:08	1
4-Bromofluorobenzene		**	70 - 130	03/11/21 14:00	03/12/21 03:08	1

Client Sample ID: T-2 (5')

Lab Sample ID: 890-319-2

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	771		49.9		mg/kg		03/11/21 13:50	03/11/21 15:27	10

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	5800		250		mg/kg		03/11/21 17:00	03/12/21 08:43	5
Gasoline Range Hydrocarbons (GRO)	10600		250		mg/kg		03/11/21 17:00	03/12/21 08:43	5
Motor Oil Range Hydrocarbons (MRO)	<250	U	250		mg/kg		03/11/21 17:00	03/12/21 08:43	5
Total TPH	16400		250		mg/kg		03/11/21 17:00	03/12/21 08:43	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 135	03/11/21 17:00	03/12/21 08:43	5
o-Terphenyl	84		70 - 135	03/11/21 17:00	03/12/21 08:43	5

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.37		0.403		mg/kg		03/11/21 17:00	03/12/21 13:42	200
Ethylbenzene	11.1		0.403		mg/kg		03/11/21 17:00	03/12/21 13:42	200

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-2 (5')

Lab Sample ID: 890-319-2

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	312	D	2.02		mg/kg		03/11/21 17:00	03/15/21 02:33	500
o-Xylene	42.7		0.403		mg/kg		03/11/21 17:00	03/12/21 13:42	200
Toluene	70.7		0.403		mg/kg		03/11/21 17:00	03/12/21 13:42	200
Total BTEX	440		0.403		mg/kg		03/11/21 17:00	03/15/21 02:33	500
Total Xylenes	355		0.403		mg/kg		03/11/21 17:00	03/15/21 02:33	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	03/11/21 17:00	03/12/21 13:42	200
4-Bromofluorobenzene	209	**	70 - 130	03/11/21 17:00	03/12/21 13:42	200

Client Sample ID: T-2 (10')

Lab Sample ID: 890-319-3

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	218		4.95		mg/kg		03/11/21 13:50	03/11/21 15:32	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	1910		50.0		mg/kg		03/11/21 17:00	03/12/21 03:19	1
Gasoline Range Hydrocarbons (GRO)	3950		50.0		mg/kg		03/11/21 17:00	03/12/21 03:19	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 03:19	1
Total TPH	5860		50.0		mg/kg		03/11/21 17:00	03/12/21 03:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	**	70 - 135	03/11/21 17:00	03/12/21 03:19	1
o-Terphenyl	76		70 - 135	03/11/21 17:00	03/12/21 03:19	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.845		0.398		mg/kg		03/11/21 17:00	03/12/21 14:08	200
Ethylbenzene	7.79		0.398		mg/kg		03/11/21 17:00	03/12/21 14:08	200
m,p-Xylenes	132		0.797		mg/kg		03/11/21 17:00	03/12/21 14:08	200
o-Xylene	30.0		0.398		mg/kg		03/11/21 17:00	03/12/21 14:08	200
Toluene	37.0		0.398		mg/kg		03/11/21 17:00	03/12/21 14:08	200
Total BTEX	208		0.398		mg/kg		03/11/21 17:00	03/12/21 14:08	200
Total Xylenes	162		0.398		mg/kg		03/11/21 17:00	03/12/21 14:08	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130	03/11/21 17:00	03/12/21 14:08	200
4-Bromofluorobenzene	184	**	70 - 130	03/11/21 17:00	03/12/21 14:08	200

Client Sample ID: T-2 (15')

Lab Sample ID: 890-319-4

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1150		5.04		mg/kg		03/11/21 13:50	03/11/21 15:47	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-2 (15')

Lab Sample ID: 890-319-4

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	3140		50.0		mg/kg		03/11/21 17:00	03/12/21 03:41	1
Gasoline Range Hydrocarbons (GRO)	3760		50.0		mg/kg		03/11/21 17:00	03/12/21 03:41	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 03:41	1
Total TPH	6900		50.0		mg/kg		03/11/21 17:00	03/12/21 03:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	176	**	70 - 135	03/11/21 17:00	03/12/21 03:41	1
o-Terphenyl	81		70 - 135	03/11/21 17:00	03/12/21 03:41	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.11		0.400		mg/kg		03/11/21 17:00	03/12/21 14:34	200
Ethylbenzene	4.08		0.400		mg/kg		03/11/21 17:00	03/12/21 14:34	200
m,p-Xylenes	80.1		0.800		mg/kg		03/11/21 17:00	03/12/21 14:34	200
o-Xylene	19.1		0.400		mg/kg		03/11/21 17:00	03/12/21 14:34	200
Toluene	19.0		0.400		mg/kg		03/11/21 17:00	03/12/21 14:34	200
Total BTEX	123		0.400		mg/kg		03/11/21 17:00	03/12/21 14:34	200
Total Xylenes	99.2		0.400		mg/kg		03/11/21 17:00	03/12/21 14:34	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	97		70 - 130	03/11/21 17:00	03/12/21 14:34	200
4-Bromofluorobenzene	174	**	70 - 130	03/11/21 17:00	03/12/21 14:34	200

Client Sample ID: T-2 (20')

Lab Sample ID: 890-319-5

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	722		4.98		mg/kg		03/11/21 13:50	03/11/21 15:52	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	6550		249		mg/kg		03/11/21 17:00	03/12/21 09:04	5
Gasoline Range Hydrocarbons (GRO)	12800		249		mg/kg		03/11/21 17:00	03/12/21 09:04	5
Motor Oil Range Hydrocarbons (MRO)	<249	U	249		mg/kg		03/11/21 17:00	03/12/21 09:04	5
Total TPH	19400		249		mg/kg		03/11/21 17:00	03/12/21 09:04	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 135	03/11/21 17:00	03/12/21 09:04	5
o-Terphenyl	82		70 - 135	03/11/21 17:00	03/12/21 09:04	5

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.60		0.401		mg/kg		03/11/21 17:00	03/12/21 15:00	200
Ethylbenzene	15.9		0.401		mg/kg		03/11/21 17:00	03/12/21 15:00	200
m,p-Xylenes	274	E	0.802		mg/kg		03/11/21 17:00	03/12/21 15:00	200
o-Xylene	60.7		0.401		mg/kg		03/11/21 17:00	03/12/21 15:00	200
Toluene	95.6	E	0.401		mg/kg		03/11/21 17:00	03/12/21 15:00	200
Total BTEX	451		0.401		mg/kg		03/11/21 17:00	03/12/21 15:00	200

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-2 (20')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-5

Matrix: Solid

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Xylenes	335		0.401		mg/kg		03/11/21 17:00	03/12/21 15:00	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130	03/11/21 17:00	03/12/21 15:00	200
4-Bromofluorobenzene	247	**	70 - 130	03/11/21 17:00	03/12/21 15:00	200

Client Sample ID: T-3 (0-1')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-6

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	243		4.96		mg/kg		03/11/21 13:50	03/11/21 16:07	1
Chloride	35.6		4.96		mg/kg		03/11/21 13:50	03/11/21 16:33	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	1810		49.8		mg/kg		03/11/21 17:00	03/12/21 04:36	1
Gasoline Range Hydrocarbons (GRO)	3470		49.8		mg/kg		03/11/21 17:00	03/12/21 04:36	1
Motor Oil Range Hydrocarbons (MRO)	<49.8	U	49.8		mg/kg		03/11/21 17:00	03/12/21 04:36	1
Total TPH	5280		49.8		mg/kg		03/11/21 17:00	03/12/21 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	152	**	70 - 135	03/11/21 17:00	03/12/21 04:36	1
o-Terphenyl	73		70 - 135	03/11/21 17:00	03/12/21 04:36	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.451		0.399		mg/kg		03/11/21 17:00	03/12/21 15:27	200
Ethylbenzene	6.41		0.399		mg/kg		03/11/21 17:00	03/12/21 15:27	200
m,p-Xylenes	108		0.798		mg/kg		03/11/21 17:00	03/12/21 15:27	200
o-Xylene	26.0		0.399		mg/kg		03/11/21 17:00	03/12/21 15:27	200
Toluene	26.2		0.399		mg/kg		03/11/21 17:00	03/12/21 15:27	200
Total BTEX	167		0.399		mg/kg		03/11/21 17:00	03/12/21 15:27	200
Total Xylenes	134		0.399		mg/kg		03/11/21 17:00	03/12/21 15:27	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	96		70 - 130	03/11/21 17:00	03/12/21 15:27	200
4-Bromofluorobenzene	175	**	70 - 130	03/11/21 17:00	03/12/21 15:27	200

Client Sample ID: T-3 (5')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-7

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.1		4.99		mg/kg		03/11/21 13:50	03/11/21 16:56	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 04:57	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-3 (5')

Lab Sample ID: 890-319-7

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 8015 NM - TPH - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 04:57	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 04:57	1
Total TPH	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 04:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 135				03/11/21 17:00	03/12/21 04:57	1
o-Terphenyl	81		70 - 135				03/11/21 17:00	03/12/21 04:57	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00614		0.00200		mg/kg		03/11/21 14:00	03/12/21 05:11	1
Ethylbenzene	0.0136		0.00200		mg/kg		03/11/21 14:00	03/12/21 05:11	1
m,p-Xylenes	0.135		0.00400		mg/kg		03/11/21 14:00	03/12/21 05:11	1
o-Xylene	0.0299		0.00200		mg/kg		03/11/21 14:00	03/12/21 05:11	1
Toluene	0.0634		0.00200		mg/kg		03/11/21 14:00	03/12/21 05:11	1
Total BTEX	0.248		0.00200		mg/kg		03/11/21 14:00	03/12/21 05:11	1
Total Xylenes	0.165		0.00200		mg/kg		03/11/21 14:00	03/12/21 05:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	114		70 - 130				03/11/21 14:00	03/12/21 05:11	1
4-Bromofluorobenzene	113		70 - 130				03/11/21 14:00	03/12/21 05:11	1

Client Sample ID: T-3 (10')

Lab Sample ID: 890-319-8

Date Collected: 03/09/21 00:00

Matrix: Solid

Date Received: 03/10/21 16:58

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.9		5.00		mg/kg		03/11/21 13:50	03/11/21 16:13	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 05:18	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 05:18	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 05:18	1
Total TPH	<50.0	U	50.0		mg/kg		03/11/21 17:00	03/12/21 05:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 135				03/11/21 17:00	03/12/21 05:18	1
o-Terphenyl	82		70 - 135				03/11/21 17:00	03/12/21 05:18	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00259		0.00198		mg/kg		03/11/21 14:00	03/12/21 05:31	1
Ethylbenzene	0.00571		0.00198		mg/kg		03/11/21 14:00	03/12/21 05:31	1
m,p-Xylenes	0.0573		0.00396		mg/kg		03/11/21 14:00	03/12/21 05:31	1
o-Xylene	0.0156		0.00198		mg/kg		03/11/21 14:00	03/12/21 05:31	1
Toluene	0.0305		0.00198		mg/kg		03/11/21 14:00	03/12/21 05:31	1
Total BTEX	0.112		0.00198		mg/kg		03/11/21 14:00	03/12/21 05:31	1
Total Xylenes	0.0729		0.00198		mg/kg		03/11/21 14:00	03/12/21 05:31	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-3 (10')**Lab Sample ID: 890-319-8****Date Collected: 03/09/21 00:00****Matrix: Solid****Date Received: 03/10/21 16:58**

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,4-Difluorobenzene	103		70 - 130	03/11/21 14:00	03/12/21 05:31	1
4-Bromofluorobenzene	106		70 - 130	03/11/21 14:00	03/12/21 05:31	1

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-319-1	T-2 (0-1')	156 **	80
890-319-2	T-2 (5')	104	84
890-319-3	T-2 (10')	154 **	76
890-319-4	T-2 (15')	176 **	81
890-319-5	T-2 (20')	119	82
890-319-6	T-3 (0-1')	152 **	73
890-319-7	T-3 (5')	91	81
890-319-8	T-3 (10')	92	82

Surrogate Legend
1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Matrix: SOIL

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB (70-130)	
691369-001 S	Matrix Spike	102	
691369-001 SD	Matrix Spike Duplicate	109	
7723094-1-BKS	Lab Control Sample	107	
7723094-1-BLK	Method Blank	91	
7723094-1-BSD	Lab Control Sample Dup	103	
7723142-1-BKS	Lab Control Sample	87	
7723142-1-BLK	Method Blank	60 **	
7723142-1-BSD	Lab Control Sample Dup	101	

Surrogate Legend
BFB = 4-Bromofluorobenzene

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-319-1	T-2 (0-1')	**	**
890-319-2	T-2 (5')	209 **	101
890-319-3	T-2 (10')	184 **	105
890-319-4	T-2 (15')	174 **	97
890-319-5	T-2 (20')	247 **	106
890-319-6	T-3 (0-1')	175 **	96
890-319-7	T-3 (5')	113	114
890-319-8	T-3 (10')	106	103

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

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Method: 300.0 - Chloride - EPA 300.0

Lab Sample ID: 7723102-1-BLK
Matrix: SOIL
Analysis Batch: 3153430

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153430_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/11/21 13:50	03/11/21 14:07	1

Lab Sample ID: 7723102-1-BKS
Matrix: SOIL
Analysis Batch: 3153430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153430_P

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

Lab Sample ID: 7723102-1-BSD
Matrix: SOIL
Analysis Batch: 3153430

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153430_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	243		mg/kg		97	80 - 120	0	20

Lab Sample ID: 691369-003 S
Matrix: SOIL
Analysis Batch: 3153430

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153430_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	218		248	471		mg/kg		102	80 - 120

Lab Sample ID: 691369-003 SD
Matrix: SOIL
Analysis Batch: 3153430

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153430_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	218		248	472		mg/kg		102	80 - 120	0	20

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Lab Sample ID: 7723154-1-BLK
Matrix: SOIL
Analysis Batch: 3153457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153457_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/11/21 17:00	03/11/21 20:56	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/11/21 17:00	03/11/21 20:56	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/11/21 17:00	03/11/21 20:56	1

Lab Sample ID: 7723154-1-BKS
Matrix: SOIL
Analysis Batch: 3153457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153457_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	927		mg/kg		93	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	953		mg/kg		95	70 - 135

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Method: 8015 NM - TPH - SW846 8015B TPH ORO (Continued)

Lab Sample ID: 7723154-1-BSD

Matrix: SOIL

Analysis Batch: 3153457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3153457_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	947		mg/kg		95	70 - 135	2	20
Gasoline Range Hydrocarbons (GRO)	1000	980		mg/kg		98	70 - 135	3	20

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Lab Sample ID: 7723094-1-BLK

Matrix: SOIL

Analysis Batch: 3153401

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3153401_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/11/21 14:00	03/12/21 02:46	1
Ethylbenzene	<.002	U	.002		mg/kg		03/11/21 14:00	03/12/21 02:46	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/11/21 14:00	03/12/21 02:46	1
o-Xylene	<.002	U	.002		mg/kg		03/11/21 14:00	03/12/21 02:46	1
Toluene	<.002	U	.002		mg/kg		03/11/21 14:00	03/12/21 02:46	1
Surrogate	BLANK %Recovery	BLANK Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130				03/11/21 14:00	03/12/21 02:46	1

Lab Sample ID: 7723094-1-BKS

Matrix: SOIL

Analysis Batch: 3153401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3153401_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	.1	0.0978		mg/kg		98	70 - 130		
Ethylbenzene	.1	0.0967		mg/kg		97	71 - 129		
m,p-Xylenes	.2	0.200		mg/kg		100	70 - 135		
o-Xylene	.1	0.104		mg/kg		104	71 - 133		
Toluene	.1	0.0936		mg/kg		94	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene	107		70 - 130						

Lab Sample ID: 7723094-1-BSD

Matrix: SOIL

Analysis Batch: 3153401

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3153401_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	.1	0.0940		mg/kg		94	70 - 130	4	35
Ethylbenzene	.1	0.0891		mg/kg		89	71 - 129	8	35
m,p-Xylenes	.2	0.182		mg/kg		91	70 - 135	9	35
o-Xylene	.1	0.0948		mg/kg		95	71 - 133	9	35
Toluene	.1	0.0883		mg/kg		88	70 - 130	6	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	103		70 - 130						

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Lab Sample ID: 691369-001 S

Matrix: SOIL

Analysis Batch: 3153401

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3153401_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<.00201		.0998	0.0786		mg/kg		79	70 - 130
Ethylbenzene	<.00201		.0998	0.0761		mg/kg		76	71 - 129
m,p-Xylenes	<.00402		.2	0.156		mg/kg		78	70 - 135
o-Xylene	<.00201		.0998	0.0799		mg/kg		80	71 - 133
Toluene	<.00201		.0998	0.0751		mg/kg		75	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	102		70 - 130

Lab Sample ID: 691369-001 SD

Matrix: SOIL

Analysis Batch: 3153401

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3153401_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<.00201		.1	0.0752		mg/kg		75	70 - 130	4	35
Ethylbenzene	<.00201		.1	0.0765		mg/kg		77	71 - 129	1	35
m,p-Xylenes	<.00402		.201	0.159		mg/kg		79	70 - 135	2	35
o-Xylene	<.00201		.1	0.0815		mg/kg		82	71 - 133	2	35
Toluene	<.00201		.1	0.0735		mg/kg		74	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	109		70 - 130

Lab Sample ID: 7723142-1-BLK

Matrix: SOIL

Analysis Batch: 3153495

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3153495_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/11/21 17:00	03/12/21 12:25	1
Ethylbenzene	<.002	U	.002		mg/kg		03/11/21 17:00	03/12/21 12:25	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/11/21 17:00	03/12/21 12:25	1
o-Xylene	<.002	U	.002		mg/kg		03/11/21 17:00	03/12/21 12:25	1
Toluene	<.002	U	.002		mg/kg		03/11/21 17:00	03/12/21 12:25	1

Surrogate	BLANK %Recovery	BLANK Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	60	**	70 - 130	03/11/21 17:00	03/12/21 12:25	1

Lab Sample ID: 7723142-1-BKS

Matrix: SOIL

Analysis Batch: 3153495

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3153495_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	.1	0.0859		mg/kg		86	70 - 130
Ethylbenzene	.1	0.0830		mg/kg		83	71 - 129
m,p-Xylenes	.2	0.171		mg/kg		86	70 - 135
o-Xylene	.1	0.0848		mg/kg		85	71 - 133
Toluene	.1	0.0856		mg/kg		86	70 - 130

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Lab Sample ID: 7723142-1-BKS
Matrix: SOIL
Analysis Batch: 3153495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153495_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	87		70 - 130

Lab Sample ID: 7723142-1-BSD
Matrix: SOIL
Analysis Batch: 3153495

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153495_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	.1	0.0822		mg/kg		82	70 - 130	4	35
Ethylbenzene	.1	0.0848		mg/kg		85	71 - 129	2	35
m,p-Xylenes	.2	0.174		mg/kg		87	70 - 135	2	35
o-Xylene	.1	0.0915		mg/kg		92	71 - 133	8	35
Toluene	.1	0.0861		mg/kg		86	70 - 130	1	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		70 - 130

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Subcontract

Analysis Batch: 3153401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-1	T-2 (0-1')	Total/NA	Solid	8021B - BTEX	3153401_P
890-319-7	T-3 (5')	Total/NA	Solid	8021B - BTEX	3153401_P
890-319-8	T-3 (10')	Total/NA	Solid	8021B - BTEX	3153401_P
7723094-1-BLK	Method Blank	Total/NA	SOIL	8021B - BTEX	3153401_P
7723094-1-BKS	Lab Control Sample	Total/NA	SOIL	8021B - BTEX	3153401_P
7723094-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8021B - BTEX	3153401_P
691369-001 S	Matrix Spike	Total/NA	SOIL	8021B - BTEX	3153401_P
691369-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	8021B - BTEX	3153401_P

Analysis Batch: 3153430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-1	T-2 (0-1')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-2	T-2 (5')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-3	T-2 (10')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-4	T-2 (15')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-5	T-2 (20')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-6	T-3 (0-1')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-6	T-3 (0-1')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-7	T-3 (5')	Total/NA	Solid	300.0 - Chloride	3153430_P
890-319-8	T-3 (10')	Total/NA	Solid	300.0 - Chloride	3153430_P
7723102-1-BLK	Method Blank	Total/NA	SOIL	300.0 - Chloride	3153430_P
7723102-1-BKS	Lab Control Sample	Total/NA	SOIL	300.0 - Chloride	3153430_P
7723102-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	300.0 - Chloride	3153430_P
691369-003 S	Matrix Spike	Total/NA	SOIL	300.0 - Chloride	3153430_P
691369-003 SD	Matrix Spike Duplicate	Total/NA	SOIL	300.0 - Chloride	3153430_P

Analysis Batch: 3153457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-1	T-2 (0-1')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-2	T-2 (5')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-3	T-2 (10')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-4	T-2 (15')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-5	T-2 (20')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-6	T-3 (0-1')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-7	T-3 (5')	Total/NA	Solid	8015 NM - TPH	3153457_P
890-319-8	T-3 (10')	Total/NA	Solid	8015 NM - TPH	3153457_P
7723154-1-BLK	Method Blank	Total/NA	SOIL	8015 NM - TPH	3153457_P
7723154-1-BKS	Lab Control Sample	Total/NA	SOIL	8015 NM - TPH	3153457_P
7723154-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015 NM - TPH	3153457_P

Analysis Batch: 3153495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-2	T-2 (5')	Total/NA	Solid	8021B - BTEX	3153495_P
890-319-2	T-2 (5')	Total/NA	Solid	8021B - BTEX	3153495_P
890-319-3	T-2 (10')	Total/NA	Solid	8021B - BTEX	3153495_P
890-319-4	T-2 (15')	Total/NA	Solid	8021B - BTEX	3153495_P
890-319-5	T-2 (20')	Total/NA	Solid	8021B - BTEX	3153495_P
890-319-6	T-3 (0-1')	Total/NA	Solid	8021B - BTEX	3153495_P
7723142-1-BLK	Method Blank	Total/NA	SOIL	8021B - BTEX	3153495_P
7723142-1-BKS	Lab Control Sample	Total/NA	SOIL	8021B - BTEX	3153495_P
7723142-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8021B - BTEX	3153495_P

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Subcontract

Prep Batch: 3153401_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-1	T-2 (0-1')	Total/NA	Solid	SW5035A	
890-319-7	T-3 (5')	Total/NA	Solid	SW5035A	
890-319-8	T-3 (10')	Total/NA	Solid	SW5035A	
7723094-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723094-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723094-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	
691369-001 S	Matrix Spike	Total/NA	SOIL	SW5035A	
691369-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW5035A	

Prep Batch: 3153430_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-1	T-2 (0-1')	Total/NA	Solid	E300P	
890-319-2	T-2 (5')	Total/NA	Solid	E300P	
890-319-3	T-2 (10')	Total/NA	Solid	E300P	
890-319-4	T-2 (15')	Total/NA	Solid	E300P	
890-319-5	T-2 (20')	Total/NA	Solid	E300P	
890-319-6	T-3 (0-1')	Total/NA	Solid	E300P	
890-319-6	T-3 (0-1')	Total/NA	Solid	E300P	
890-319-7	T-3 (5')	Total/NA	Solid	E300P	
890-319-8	T-3 (10')	Total/NA	Solid	E300P	
7723102-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723102-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723102-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691369-003 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691369-003 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153457_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-1	T-2 (0-1')	Total/NA	Solid	SW8015P	
890-319-2	T-2 (5')	Total/NA	Solid	SW8015P	
890-319-3	T-2 (10')	Total/NA	Solid	SW8015P	
890-319-4	T-2 (15')	Total/NA	Solid	SW8015P	
890-319-5	T-2 (20')	Total/NA	Solid	SW8015P	
890-319-6	T-3 (0-1')	Total/NA	Solid	SW8015P	
890-319-7	T-3 (5')	Total/NA	Solid	SW8015P	
890-319-8	T-3 (10')	Total/NA	Solid	SW8015P	
7723154-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723154-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723154-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153495_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-2	T-2 (5')	Total/NA	Solid	SW5035A	
890-319-2	T-2 (5')	Total/NA	Solid	SW5035A	
890-319-3	T-2 (10')	Total/NA	Solid	SW5035A	

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Subcontract (Continued)

Prep Batch: 3153495_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-319-4	T-2 (15')	Total/NA	Solid	SW5035A	
890-319-5	T-2 (20')	Total/NA	Solid	SW5035A	
890-319-6	T-3 (0-1')	Total/NA	Solid	SW5035A	
7723142-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723142-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723142-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-2 (0-1')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 15:22	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153457	03/12/21 02:30	ARM	XM
Total/NA	Prep	SW5035A		1	3153401_P	03/11/21 14:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153401	03/12/21 03:08	KTL	XM

Client Sample ID: T-2 (5')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		10	3153430	03/11/21 15:27	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		5	3153457	03/12/21 08:43	ARM	XM
Total/NA	Prep	SW5035A		1	3153495_P	03/11/21 17:00		XM
Total/NA	Analysis	8021B - BTEX		200	3153495	03/12/21 13:42	MNR	XM
Total/NA	Prep	SW5035A		1	3153495_P	03/11/21 17:00		XM
Total/NA	Analysis	8021B - BTEX		500	3153495	03/15/21 02:33	MNR	XM

Client Sample ID: T-2 (10')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 15:32	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153457	03/12/21 03:19	ARM	XM
Total/NA	Prep	SW5035A		1	3153495_P	03/11/21 17:00		XM
Total/NA	Analysis	8021B - BTEX		200	3153495	03/12/21 14:08	MNR	XM

Client Sample ID: T-2 (15')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 15:47	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153457	03/12/21 03:41	ARM	XM
Total/NA	Prep	SW5035A		1	3153495_P	03/11/21 17:00		XM
Total/NA	Analysis	8021B - BTEX		200	3153495	03/12/21 14:34	MNR	XM

Eurofins Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Client Sample ID: T-2 (20')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 15:52	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		5	3153457	03/12/21 09:04	ARM	XM
Total/NA	Prep	SW5035A		1	3153495_P	03/11/21 17:00		XM
Total/NA	Analysis	8021B - BTEX		200	3153495	03/12/21 15:00	MNR	XM

Client Sample ID: T-3 (0-1')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 16:07	CHE	XM
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 16:33	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153457	03/12/21 04:36	ARM	XM
Total/NA	Prep	SW5035A		1	3153495_P	03/11/21 17:00		XM
Total/NA	Analysis	8021B - BTEX		200	3153495	03/12/21 15:27	MNR	XM

Client Sample ID: T-3 (5')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 16:56	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153457	03/12/21 04:57	ARM	XM
Total/NA	Prep	SW5035A		1	3153401_P	03/11/21 14:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153401	03/12/21 05:11	KTL	XM

Client Sample ID: T-3 (10')

Date Collected: 03/09/21 00:00

Date Received: 03/10/21 16:58

Lab Sample ID: 890-319-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153430_P	03/11/21 13:50		XM
Total/NA	Analysis	300.0 - Chloride		1	3153430	03/11/21 16:13	CHE	XM
Total/NA	Prep	SW8015P		1	3153457_P	03/11/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153457	03/12/21 05:18	ARM	XM
Total/NA	Prep	SW5035A		1	3153401_P	03/11/21 14:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153401	03/12/21 05:31	KTL	XM

Eurofins Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Laboratory References:

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

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Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Laboratory: Eurofins Midland

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

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

- 1
- 2
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- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-319-1
SDG: 212c-md-02003

Method	Method Description	Protocol	Laboratory
300.0	EPA 300.0	EPA	XM
8015B	SW846 8015B TPH ORO	SW846	XM
8021	SW846 8021 Volatile Organic Compounds	SW846	XM

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: Tetra Tech, Inc.

Job ID: 890-319-1

Project/Site: El Paso 23 Federal Tank Battery #2

SDG: 212c-md-02003

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-319-1	T-2 (0-1')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-2	T-2 (5')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-3	T-2 (10')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-4	T-2 (15')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-5	T-2 (20')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-6	T-3 (0-1')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-7	T-3 (5')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-8	T-3 (10')	Solid	03/09/21 00:00	03/10/21 16:58	
890-319-9	T-3 (15')	Solid	03/09/21 00:00	03/10/21 16:58	

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946



890-319 Chain of Custody

Page 1 of 1

Client Name: EOG		Site Manager: Brittany Long	
Project Name: E1 Paso 23 Federal Tank Battery #2		Project #: 212C-MD-02003	
Project Location: (county, state) Eddy County, NM		Sampler Signature: Ezequiel Moreno	
Invoice to: EOG Todd Wells		Receiving Laboratory: Xenco	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None		
	T-2 (0-1')	3/9/21		X	X			X			
	T-2 (5')										
	T-2 (10')										
	T-2 (15')										
	T-2 (20')										
	T-3 (0-1')										
	T-3 (5')										
	T-3 (10')										
	T-3 (15')										

Relinquished by: David M...	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____

Received by: Joe Lopez	Date: 3-10-21	Time: 1658
Received by: _____	Date: _____	Time: _____
Received by: _____	Date: _____	Time: _____

LAB USE ONLY	REMARKS:
Sample Temperature 6.2 / 6.0	☐ STANDARD ☒ RUSH: Same Day 24 hr 48 hr 72 hr ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report

ANALYSIS REQUEST (Circle or Specify Method No.)	BTEX 8021B BTEX 8260B TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8260B / 624 GC/MS Semi Vol. 8270C/625 PCB's 8082 / 608 NORM PLM (Asbestos) Chloride Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance
--	---

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 3070 Yess Street, Ste 100
 Midland, Texas 79705
 Tel (432) 682-4559
 Fax (432) 682-3946


890-319 Chain of Custody

Page 1 of 1

3/16/2021

Client Name: EOG		Site Manager: Brittany Long	
Project Name: El Paso 23 Federal Tank Battery #2		Project #: 212C-MD-02003	
Project Location: Eddy County, NM		Project #: 212C-MD-02003	
Invoice to: EOG Todd Wells		Sampler Signature: Ezequiel Moreno	
Receiving Laboratory: Xenco		Comments:	

LAB #	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			
	T-2 (0-1')	3/9/21		X				X		BTEX 8021B BTEX 8260B
	T-2 (5')									TPH TX1005 (Ext to C35)
	T-2 (10')									TPH 8015M (GRO - DRO - ORO - MRO)
	T-2 (15')									PAH 8270C
	T-2 (20')									Total Metals Ag As Ba Cd Cr Pb Se Hg
	T-3 (0-1')									TCLP Metals Ag As Ba Cd Cr Pb Se Hg
	T-3 (5')									TCLP Volatiles
	T-3 (10')									TCLP Semi Volatiles
	T-3 (15')									RCI
										GC/MS Vol. 8260B / 624
										GC/MS Semi. Vol. 8270C/625
										PCB's 8082 / 608
										NORM
										PLM (Asbestos)
										Chloride
										Chloride Sulfate TDS
										General Water Chemistry (see attached list)
										Anion/Cation Balance
										Hold

Relinquished by: Ezequiel Moreno	Date: _____ Time: _____	Received by: Joe Lopez	Date: 3-10-21 Time: 1658
Relinquished by: _____	Date: _____ Time: _____	Received by: _____	Date: _____ Time: _____
Relinquished by: _____	Date: _____ Time: _____	Received by: _____	Date: _____ Time: _____

LAB USE ONLY	REMARKS:
☐ STANDARD ☒ RUSH: Same Day (24 hr 48 hr 72 hr) ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report	Sample Temperature: 6.2 / 16.0 (Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-319-1

SDG Number: 212c-md-02003

Login Number: 319

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-342-1

Laboratory Sample Delivery Group: 212C-MD-02003
Client Project/Site: El Paso 23 Federal Tank Battery #2

For:

Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

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

Authorized for release by:
3/16/2021 6:46:47 PM

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

LINKS

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results through
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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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Laboratory Job ID: 890-342-1
SDG: 212C-MD-02003

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	14
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

1

2

3

4

5

6

7

8

9

10

11

12

13

Definitions/Glossary

Client: Tetra Tech, Inc.

Job ID: 890-342-1

Project/Site: El Paso 23 Federal Tank Battery #2

SDG: 212C-MD-02003

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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Job ID: 890-342-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-342-1**

Comments

No additional comments.

Receipt

The samples were received on 3/12/2021 2:28 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0° C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BH-1 (20') (890-342-1), BH-2 (20') (890-342-2), BH-3 (20') (890-342-3), BH-4 (20') (890-342-4), BH-5 (20') (890-342-5), BH-6 (15') (890-342-6), BH-7 (10') (890-342-7) and BH-8 (10') (890-342-8).
BTEX8021

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Client Sample ID: BH-1 (20')

Lab Sample ID: 890-342-1

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:47

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	498		50.0		mg/kg		03/15/21 14:45	03/15/21 15:03	10

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	74.5		49.9		mg/kg		03/15/21 17:00	03/16/21 03:22	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 03:22	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 03:22	1
Total TPH	74.5		49.9		mg/kg		03/15/21 17:00	03/16/21 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 135	03/15/21 17:00	03/16/21 03:22	1
o-Terphenyl	136	**	70 - 135	03/15/21 17:00	03/16/21 03:22	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 02:51	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 02:51	1
m,p-Xylenes	<0.00404	U	0.00404		mg/kg		03/15/21 17:00	03/16/21 02:51	1
o-Xylene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 02:51	1
Toluene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 02:51	1
Total BTEX	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 02:51	1
Total Xylenes	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	97		70 - 130	03/15/21 17:00	03/16/21 02:51	1
4-Bromofluorobenzene	112		70 - 130	03/15/21 17:00	03/16/21 02:51	1

Client Sample ID: BH-2 (20')

Lab Sample ID: 890-342-2

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:47

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	238		49.9		mg/kg		03/15/21 14:45	03/15/21 15:25	10

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8	U	49.8		mg/kg		03/15/21 17:00	03/16/21 03:43	1
Gasoline Range Hydrocarbons (GRO)	<49.8	U	49.8		mg/kg		03/15/21 17:00	03/16/21 03:43	1
Motor Oil Range Hydrocarbons (MRO)	<49.8	U	49.8		mg/kg		03/15/21 17:00	03/16/21 03:43	1
Total TPH	<49.8	U	49.8		mg/kg		03/15/21 17:00	03/16/21 03:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 135	03/15/21 17:00	03/16/21 03:43	1
o-Terphenyl	138	**	70 - 135	03/15/21 17:00	03/16/21 03:43	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/kg		03/15/21 17:00	03/16/21 03:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/kg		03/15/21 17:00	03/16/21 03:11	1
m,p-Xylenes	<0.00402	U	0.00402		mg/kg		03/15/21 17:00	03/16/21 03:11	1
o-Xylene	<0.00201	U	0.00201		mg/kg		03/15/21 17:00	03/16/21 03:11	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Client Sample ID: BH-2 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:47

Lab Sample ID: 890-342-2

Matrix: Solid

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00201	U	0.00201		mg/kg		03/15/21 17:00	03/16/21 03:11	1
Total BTEX	<0.00201	U	0.00201		mg/kg		03/15/21 17:00	03/16/21 03:11	1
Total Xylenes	<0.00201	U	0.00201		mg/kg		03/15/21 17:00	03/16/21 03:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	98		70 - 130				03/15/21 17:00	03/16/21 03:11	1
4-Bromofluorobenzene	107		70 - 130				03/15/21 17:00	03/16/21 03:11	1

Client Sample ID: BH-3 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:47

Lab Sample ID: 890-342-3

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	696		49.6		mg/kg		03/15/21 14:45	03/15/21 15:31	10

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:04	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:04	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:04	1
Total TPH	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 135				03/15/21 17:00	03/16/21 04:04	1
o-Terphenyl	123		70 - 135				03/15/21 17:00	03/16/21 04:04	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 03:31	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 03:31	1
m,p-Xylenes	<0.00403	U	0.00403		mg/kg		03/15/21 17:00	03/16/21 03:31	1
o-Xylene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 03:31	1
Toluene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 03:31	1
Total BTEX	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 03:31	1
Total Xylenes	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 03:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				03/15/21 17:00	03/16/21 03:31	1
4-Bromofluorobenzene	114		70 - 130				03/15/21 17:00	03/16/21 03:31	1

Client Sample ID: BH-4 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:47

Lab Sample ID: 890-342-4

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	106		4.97		mg/kg		03/15/21 14:45	03/15/21 15:36	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:25	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Client Sample ID: BH-4 (20')

Lab Sample ID: 890-342-4

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:47

Method: 8015 NM - TPH - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:25	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:25	1
Total TPH	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 04:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 135				03/15/21 17:00	03/16/21 04:25	1
o-Terphenyl	141	**	70 - 135				03/15/21 17:00	03/16/21 04:25	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/15/21 17:00	03/16/21 03:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 17:00	03/16/21 03:52	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/15/21 17:00	03/16/21 03:52	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 17:00	03/16/21 03:52	1
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 17:00	03/16/21 03:52	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/15/21 17:00	03/16/21 03:52	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/15/21 17:00	03/16/21 03:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				03/15/21 17:00	03/16/21 03:52	1
4-Bromofluorobenzene	112		70 - 130				03/15/21 17:00	03/16/21 03:52	1

Client Sample ID: BH-5 (20')

Lab Sample ID: 890-342-5

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:47

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	445		50.3		mg/kg		03/15/21 14:45	03/15/21 21:24	10

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	66.6		49.9		mg/kg		03/15/21 17:00	03/16/21 04:46	1
Gasoline Range Hydrocarbons (GRO)	51.5		49.9		mg/kg		03/15/21 17:00	03/16/21 04:46	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 04:46	1
Total TPH	118		49.9		mg/kg		03/15/21 17:00	03/16/21 04:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 135				03/15/21 17:00	03/16/21 04:46	1
o-Terphenyl	136	**	70 - 135				03/15/21 17:00	03/16/21 04:46	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:12	1
m,p-Xylenes	<0.00400	U	0.00400		mg/kg		03/15/21 17:00	03/16/21 04:12	1
o-Xylene	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:12	1
Toluene	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:12	1
Total BTEX	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:12	1
Total Xylenes	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:12	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Client Sample ID: BH-5 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:47

Lab Sample ID: 890-342-5

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130	03/15/21 17:00	03/16/21 04:12	1
4-Bromofluorobenzene	109		70 - 130	03/15/21 17:00	03/16/21 04:12	1

Client Sample ID: BH-6 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:47

Lab Sample ID: 890-342-6

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	520		24.8		mg/kg		03/15/21 14:45	03/15/21 21:29	5

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	2400		49.9		mg/kg		03/15/21 17:00	03/16/21 05:07	1
Gasoline Range Hydrocarbons (GRO)	1400		49.9		mg/kg		03/15/21 17:00	03/16/21 05:07	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 05:07	1
Total TPH	7270		49.9		mg/kg		03/15/21 17:00	03/16/21 05:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 135	03/15/21 17:00	03/16/21 05:07	1
o-Terphenyl	67	**	70 - 135	03/15/21 17:00	03/16/21 05:07	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 17:00	03/16/21 04:33	1
m,p-Xylenes	0.110		0.00401		mg/kg		03/15/21 17:00	03/16/21 04:33	1
o-Xylene	0.322		0.00200		mg/kg		03/15/21 17:00	03/16/21 04:33	1
Toluene	0.352		0.00200		mg/kg		03/15/21 17:00	03/16/21 04:33	1
Total BTEX	0.784		0.00200		mg/kg		03/15/21 17:00	03/16/21 04:33	1
Total Xylenes	0.432		0.00200		mg/kg		03/15/21 17:00	03/16/21 04:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	71		70 - 130	03/15/21 17:00	03/16/21 04:33	1
4-Bromofluorobenzene	82		70 - 130	03/15/21 17:00	03/16/21 04:33	1

Client Sample ID: BH-7 (10')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:47

Lab Sample ID: 890-342-7

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	217		4.95		mg/kg		03/15/21 14:45	03/15/21 21:35	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	99.6		49.9		mg/kg		03/15/21 17:00	03/16/21 05:30	1
Gasoline Range Hydrocarbons (GRO)	61.4		49.9		mg/kg		03/15/21 17:00	03/16/21 05:30	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 05:30	1
Total TPH	161		49.9		mg/kg		03/15/21 17:00	03/16/21 05:30	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Client Sample ID: BH-7 (10')

Lab Sample ID: 890-342-7

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 135	03/15/21 17:00	03/16/21 05:30	1
o-Terphenyl	128		70 - 135	03/15/21 17:00	03/16/21 05:30	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 04:53	1
Ethylbenzene	0.00262		0.00202		mg/kg		03/15/21 17:00	03/16/21 04:53	1
m,p-Xylenes	<0.00404	U	0.00404		mg/kg		03/15/21 17:00	03/16/21 04:53	1
o-Xylene	0.0297		0.00202		mg/kg		03/15/21 17:00	03/16/21 04:53	1
Toluene	0.0162		0.00202		mg/kg		03/15/21 17:00	03/16/21 04:53	1
Total BTEX	0.0485		0.00202		mg/kg		03/15/21 17:00	03/16/21 04:53	1
Total Xylenes	0.0297		0.00202		mg/kg		03/15/21 17:00	03/16/21 04:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	99		70 - 130	03/15/21 17:00	03/16/21 04:53	1
4-Bromofluorobenzene	112		70 - 130	03/15/21 17:00	03/16/21 04:53	1

Client Sample ID: BH-8 (10')

Lab Sample ID: 890-342-8

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:47

Method: 300.0 - Chloride - EPA 300.0									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	334		4.98		mg/kg		03/15/21 14:45	03/15/21 21:40	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	96.5		50.0		mg/kg		03/15/21 17:00	03/16/21 05:50	1
Gasoline Range Hydrocarbons (GRO)	75.9		50.0		mg/kg		03/15/21 17:00	03/16/21 05:50	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 05:50	1
Total TPH	325		50.0		mg/kg		03/15/21 17:00	03/16/21 05:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 135	03/15/21 17:00	03/16/21 05:50	1
o-Terphenyl	140	**	70 - 135	03/15/21 17:00	03/16/21 05:50	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 05:14	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/15/21 17:00	03/16/21 05:14	1
m,p-Xylenes	0.0136		0.00403		mg/kg		03/15/21 17:00	03/16/21 05:14	1
o-Xylene	0.0781		0.00202		mg/kg		03/15/21 17:00	03/16/21 05:14	1
Toluene	0.0220		0.00202		mg/kg		03/15/21 17:00	03/16/21 05:14	1
Total BTEX	0.114		0.00202		mg/kg		03/15/21 17:00	03/16/21 05:14	1
Total Xylenes	0.0917		0.00202		mg/kg		03/15/21 17:00	03/16/21 05:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	85		70 - 130	03/15/21 17:00	03/16/21 05:14	1
4-Bromofluorobenzene	97		70 - 130	03/15/21 17:00	03/16/21 05:14	1

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Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-342-1	BH-1 (20')	118	136 **
890-342-2	BH-2 (20')	120	138 **
890-342-3	BH-3 (20')	113	123
890-342-4	BH-4 (20')	125	141 **
890-342-5	BH-5 (20')	121	136 **
890-342-6	BH-6 (15')	101	67 **
890-342-7	BH-7 (10')	116	128
890-342-8	BH-8 (10')	124	140 **
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Matrix: SOIL

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB (70-130)	
691741-001 S	Matrix Spike	103	
691741-001 SD	Matrix Spike Duplicate	102	
7723416-1-BKS	Lab Control Sample	103	
7723416-1-BLK	Method Blank	101	
7723416-1-BSD	Lab Control Sample Dup	100	
Surrogate Legend			
BFB = 4-Bromofluorobenzene			

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-342-1	BH-1 (20')	112	97
890-342-2	BH-2 (20')	107	98
890-342-3	BH-3 (20')	114	102
890-342-4	BH-4 (20')	112	102
890-342-5	BH-5 (20')	109	100
890-342-6	BH-6 (15')	82	71
890-342-7	BH-7 (10')	112	99
890-342-8	BH-8 (10')	97	85
Surrogate Legend			
BFB = 4-Bromofluorobenzene			
DFBZ = 1,4-Difluorobenzene			

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Method: 300.0 - Chloride - EPA 300.0

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

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

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

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

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

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

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

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

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

Lab Sample ID: 691741-001 S
Matrix: SOIL
Analysis Batch: 3153746

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	498		2500	2930		mg/kg		97	80 - 120

Lab Sample ID: 691741-001 SD
Matrix: SOIL
Analysis Batch: 3153746

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	498		2500	2920		mg/kg		97	80 - 120	0	20

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Lab Sample ID: 7723404-1-BLK
Matrix: SOIL
Analysis Batch: 3153793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153793_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/15/21 17:00	03/15/21 21:07	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/15/21 17:00	03/15/21 21:07	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/15/21 17:00	03/15/21 21:07	1

Lab Sample ID: 7723404-1-BKS
Matrix: SOIL
Analysis Batch: 3153793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153793_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	1290		mg/kg		129	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	1120		mg/kg		112	70 - 135

Eurofins Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Method: 8015 NM - TPH - SW846 8015B TPH ORO (Continued)

Lab Sample ID: 7723404-1-BSD

Matrix: SOIL

Analysis Batch: 3153793

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3153793_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1250		mg/kg		125	70 - 135	3	20
Gasoline Range Hydrocarbons (GRO)	1000	1060		mg/kg		106	70 - 135	6	20

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Lab Sample ID: 7723416-1-BLK

Matrix: SOIL

Analysis Batch: 3153763

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3153763_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/15/21 17:00	03/16/21 02:22	1
Ethylbenzene	<.002	U	.002		mg/kg		03/15/21 17:00	03/16/21 02:22	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/15/21 17:00	03/16/21 02:22	1
o-Xylene	<.002	U	.002		mg/kg		03/15/21 17:00	03/16/21 02:22	1
Toluene	<.002	U	.002		mg/kg		03/15/21 17:00	03/16/21 02:22	1
Surrogate	BLANK %Recovery	BLANK Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		70 - 130				03/15/21 17:00	03/16/21 02:22	1

Lab Sample ID: 7723416-1-BKS

Matrix: SOIL

Analysis Batch: 3153763

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3153763_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	.1	0.108		mg/kg		108	70 - 130		
Ethylbenzene	.1	0.106		mg/kg		106	71 - 129		
m,p-Xylenes	.2	0.213		mg/kg		107	70 - 135		
o-Xylene	.1	0.110		mg/kg		110	71 - 133		
Toluene	.1	0.106		mg/kg		106	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene	103		70 - 130						

Lab Sample ID: 7723416-1-BSD

Matrix: SOIL

Analysis Batch: 3153763

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3153763_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	.1	0.103		mg/kg		103	70 - 130	5	35
Ethylbenzene	.1	0.102		mg/kg		102	71 - 129	4	35
m,p-Xylenes	.2	0.205		mg/kg		103	70 - 135	4	35
o-Xylene	.1	0.105		mg/kg		105	71 - 133	5	35
Toluene	.1	0.103		mg/kg		103	70 - 130	3	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	100		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Lab Sample ID: 691741-001 S

Matrix: SOIL

Analysis Batch: 3153763

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3153763_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<.00201		.0998	0.0968		mg/kg		97	70 - 130
Ethylbenzene	<.00201		.0998	0.0954		mg/kg		96	71 - 129
m,p-Xylenes	<.00402		.2	0.193		mg/kg		97	70 - 135
o-Xylene	<.00201		.0998	0.0973		mg/kg		97	71 - 133
Toluene	<.00201		.0998	0.0973		mg/kg		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	103		70 - 130

Lab Sample ID: 691741-001 SD

Matrix: SOIL

Analysis Batch: 3153763

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3153763_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<.00201		.101	0.0923		mg/kg		91	70 - 130	5	35
Ethylbenzene	<.00201		.101	0.0963		mg/kg		95	71 - 129	1	35
m,p-Xylenes	<.00402		.201	0.196		mg/kg		98	70 - 135	2	35
o-Xylene	<.00201		.101	0.0985		mg/kg		98	71 - 133	1	35
Toluene	<.00201		.101	0.0992		mg/kg		98	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	102		70 - 130

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Subcontract

Analysis Batch: 3153746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-1	BH-1 (20')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-2	BH-2 (20')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-3	BH-3 (20')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-4	BH-4 (20')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-5	BH-5 (20')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-6	BH-6 (15')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-7	BH-7 (10')	Total/NA	Solid	300.0 - Chloride	3153746_P
890-342-8	BH-8 (10')	Total/NA	Solid	300.0 - Chloride	3153746_P
7723355-1-BLK	Method Blank	Total/NA	SOIL	300.0 - Chloride	3153746_P
7723355-1-BKS	Lab Control Sample	Total/NA	SOIL	300.0 - Chloride	3153746_P
7723355-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	300.0 - Chloride	3153746_P
691741-001 S	Matrix Spike	Total/NA	SOIL	300.0 - Chloride	3153746_P
691741-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	300.0 - Chloride	3153746_P

Analysis Batch: 3153763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-1	BH-1 (20')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-2	BH-2 (20')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-3	BH-3 (20')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-4	BH-4 (20')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-5	BH-5 (20')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-6	BH-6 (15')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-7	BH-7 (10')	Total/NA	Solid	8021B - BTEX	3153763_P
890-342-8	BH-8 (10')	Total/NA	Solid	8021B - BTEX	3153763_P
7723416-1-BLK	Method Blank	Total/NA	SOIL	8021B - BTEX	3153763_P
7723416-1-BKS	Lab Control Sample	Total/NA	SOIL	8021B - BTEX	3153763_P
7723416-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8021B - BTEX	3153763_P
691741-001 S	Matrix Spike	Total/NA	SOIL	8021B - BTEX	3153763_P
691741-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	8021B - BTEX	3153763_P

Analysis Batch: 3153793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-1	BH-1 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-2	BH-2 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-3	BH-3 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-4	BH-4 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-5	BH-5 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-6	BH-6 (15')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-7	BH-7 (10')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-342-8	BH-8 (10')	Total/NA	Solid	8015 NM - TPH	3153793_P
7723404-1-BLK	Method Blank	Total/NA	SOIL	8015 NM - TPH	3153793_P
7723404-1-BKS	Lab Control Sample	Total/NA	SOIL	8015 NM - TPH	3153793_P
7723404-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015 NM - TPH	3153793_P

Prep Batch: 3153746_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-1	BH-1 (20')	Total/NA	Solid	E300P	
890-342-2	BH-2 (20')	Total/NA	Solid	E300P	
890-342-3	BH-3 (20')	Total/NA	Solid	E300P	
890-342-4	BH-4 (20')	Total/NA	Solid	E300P	
890-342-5	BH-5 (20')	Total/NA	Solid	E300P	

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QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-342-1
SDG: 212C-MD-02003

Subcontract (Continued)

Prep Batch: 3153746_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-6	BH-6 (15')	Total/NA	Solid	E300P	
890-342-7	BH-7 (10')	Total/NA	Solid	E300P	
890-342-8	BH-8 (10')	Total/NA	Solid	E300P	
7723355-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723355-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723355-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691741-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691741-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153763_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-1	BH-1 (20')	Total/NA	Solid	SW5035A	
890-342-2	BH-2 (20')	Total/NA	Solid	SW5035A	
890-342-3	BH-3 (20')	Total/NA	Solid	SW5035A	
890-342-4	BH-4 (20')	Total/NA	Solid	SW5035A	
890-342-5	BH-5 (20')	Total/NA	Solid	SW5035A	
890-342-6	BH-6 (15')	Total/NA	Solid	SW5035A	
890-342-7	BH-7 (10')	Total/NA	Solid	SW5035A	
890-342-8	BH-8 (10')	Total/NA	Solid	SW5035A	
7723416-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723416-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723416-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	
691741-001 S	Matrix Spike	Total/NA	SOIL	SW5035A	
691741-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW5035A	

Prep Batch: 3153793_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-342-1	BH-1 (20')	Total/NA	Solid	SW8015P	
890-342-2	BH-2 (20')	Total/NA	Solid	SW8015P	
890-342-3	BH-3 (20')	Total/NA	Solid	SW8015P	
890-342-4	BH-4 (20')	Total/NA	Solid	SW8015P	
890-342-5	BH-5 (20')	Total/NA	Solid	SW8015P	
890-342-6	BH-6 (15')	Total/NA	Solid	SW8015P	
890-342-7	BH-7 (10')	Total/NA	Solid	SW8015P	
890-342-8	BH-8 (10')	Total/NA	Solid	SW8015P	
7723404-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723404-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723404-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

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Accreditation/Certification Summary

Client: Tetra Tech, Inc.

Job ID: 890-342-1

Project/Site: El Paso 23 Federal Tank Battery #2

SDG: 212C-MD-02003

Laboratory: Eurofins Midland

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

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

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Method Summary

Client: Tetra Tech, Inc.

Job ID: 890-342-1

Project/Site: El Paso 23 Federal Tank Battery #2

SDG: 212C-MD-02003

Method	Method Description	Protocol	Laboratory
300.0	EPA 300.0	EPA	XM
8015B	SW846 8015B TPH ORO	SW846	XM
8021	SW846 8021 Volatile Organic Compounds	SW846	XM

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: Tetra Tech, Inc.

Job ID: 890-342-1

Project/Site: El Paso 23 Federal Tank Battery #2

SDG: 212C-MD-02003

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-342-1	BH-1 (20')	Solid	03/11/21 00:00	03/12/21 14:47	
890-342-2	BH-2 (20')	Solid	03/11/21 00:00	03/12/21 14:47	
890-342-3	BH-3 (20')	Solid	03/11/21 00:00	03/12/21 14:47	
890-342-4	BH-4 (20')	Solid	03/11/21 00:00	03/12/21 14:47	
890-342-5	BH-5 (20')	Solid	03/11/21 00:00	03/12/21 14:47	
890-342-6	BH-6 (15')	Solid	03/12/21 00:00	03/12/21 14:47	
890-342-7	BH-7 (10')	Solid	03/12/21 00:00	03/12/21 14:47	
890-342-8	BH-8 (10')	Solid	03/12/21 00:00	03/12/21 14:47	

Eurofins Carlsbad

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 901 W. WAT STREET, STE 100
 Midland, Texas 79705
 Tel (432) 682-4559 Fax

890-342 Chain of Custody



Page 1 of 1

3/16/2021

Client Name: EOG

Site Manager: Brittany Long

Project Name: E1 Paso 23 Federal Tank Battery #2

Project Location: Eddy County, NM

Project #:

(county, state)

Invoice to: EOG Todd Wells

212C-MD-02005

Receiving Laboratory:

Sampler Signature:

Comments:

Xenco

Erin Moore

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			
	BH-1 (20')	3/11/21		X				X		BTEX 8021B BTEX 8260B
	BH-2 (20')									TPH TX1005 (Ext to C35)
	BH-3 (20')									TPH 8015M (GRO - DRO - ORO - MRO)
	BH-4 (20')									PAH 8270C
	BH-5 (20')									Total Metals Ag As Ba Cd Cr Pb Se Hg
	BH-6 (15')	3/11/21								TCLP Metals Ag As Ba Cd Cr Pb Se Hg
	BH-7 (10')									TCLP Volatiles
	BH-8 (10')									TCLP Semi Volatiles
										RCI
										GC/MS Vol. 8260B / 624
										GC/MS Semi. Vol. 8270C/625
										PCB's 8082 / 608
										NORM
										PLM (Asbestos)
										Chloride
										Chloride Sulfate TDS
										General Water Chemistry (see attached list)
										Anion/Cation Balance
										Hold

Relinquished by:

Date: Time:

Received by:

Date: Time:

Sample Temperature

Special Report Limits or TRRP Report

Relinquished by:

Date: Time:

Received by:

Date: Time:

Sample Temperature

Special Report Limits or TRRP Report

Relinquished by:

Date: Time:

Received by:

Date: Time:

Sample Temperature

Special Report Limits or TRRP Report

ORIGINAL COPY

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-342-1

SDG Number: 212C-MD-02003

Login Number: 342

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-343-1

Laboratory Sample Delivery Group: 212C-MD-02003
Client Project/Site: El Paso 23 Federal Tank Battery #2

For:

Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

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

Authorized for release by:
3/16/2021 7:13:36 PM

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

LINKS

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results through

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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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Laboratory Job ID: 890-343-1
SDG: 212C-MD-02003

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
Surrogate Summary	13
QC Sample Results	14
QC Association Summary	17
Lab Chronicle	20
Certification Summary	23
Method Summary	24
Sample Summary	25
Chain of Custody	26

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

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Qualifiers

Subcontract

Qualifier	Qualifier Description
**	Surrogate recovered outside laboratory control limit.
U	Analyte was 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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Job ID: 890-343-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-343-1

Comments

No additional comments.

Receipt

The samples were received on 3/12/2021 2:28 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0° C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021

were received and analyzed from an unpreserved bulk soil jar: SW-1 (20') (890-343-1), SW-2 (20') (890-343-2), SW-3 (20') (890-343-3), SW-4 (20') (890-343-4), SW-5 (15') (890-343-5), SW-6 (15') (890-343-6), SW-7 (15') (890-343-7), SW-8 (15') (890-343-8), SW-9 (10') (890-343-9), SW-10 (10') (890-343-10), SW-11 (10') (890-343-11) and SW-2 (10') (890-343-12).

btex8021

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-1 (20')

Lab Sample ID: 890-343-1

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	148		4.98		mg/kg		03/15/21 12:45	03/15/21 14:10	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	1190		50.0		mg/kg		03/15/21 17:00	03/15/21 22:09	1
Gasoline Range Hydrocarbons (GRO)	115		50.0		mg/kg		03/15/21 17:00	03/15/21 22:09	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/15/21 22:09	1
Total TPH	1310		50.0		mg/kg		03/15/21 17:00	03/15/21 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 135	03/15/21 17:00	03/15/21 22:09	1
o-Terphenyl	129		70 - 135	03/15/21 17:00	03/15/21 22:09	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 17:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 17:34	1
m,p-Xylenes	0.0643		0.00399		mg/kg		03/15/21 09:00	03/15/21 17:34	1
o-Xylene	0.122		0.00200		mg/kg		03/15/21 09:00	03/15/21 17:34	1
Toluene	0.370		0.00200		mg/kg		03/15/21 09:00	03/15/21 17:34	1
Total BTEX	0.556		0.00200		mg/kg		03/15/21 09:00	03/15/21 17:34	1
Total Xylenes	0.186		0.00200		mg/kg		03/15/21 09:00	03/15/21 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	84		70 - 130	03/15/21 09:00	03/15/21 17:34	1
4-Bromofluorobenzene	92		70 - 130	03/15/21 09:00	03/15/21 17:34	1

Client Sample ID: SW-2 (20')

Lab Sample ID: 890-343-2

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	349		5.05		mg/kg		03/15/21 12:45	03/15/21 14:16	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	1490		49.9		mg/kg		03/15/21 17:00	03/15/21 23:12	1
Gasoline Range Hydrocarbons (GRO)	189		49.9		mg/kg		03/15/21 17:00	03/15/21 23:12	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/15/21 23:12	1
Total TPH	1680		49.9		mg/kg		03/15/21 17:00	03/15/21 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 135	03/15/21 17:00	03/15/21 23:12	1
o-Terphenyl	128		70 - 135	03/15/21 17:00	03/15/21 23:12	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 17:54	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 17:54	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-2 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-2

Matrix: Solid

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	0.0575		0.00404		mg/kg		03/15/21 09:00	03/15/21 17:54	1
o-Xylene	0.110		0.00202		mg/kg		03/15/21 09:00	03/15/21 17:54	1
Toluene	0.331		0.00202		mg/kg		03/15/21 09:00	03/15/21 17:54	1
Total BTEX	0.499		0.00202		mg/kg		03/15/21 09:00	03/15/21 17:54	1
Total Xylenes	0.168		0.00202		mg/kg		03/15/21 09:00	03/15/21 17:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	72		70 - 130				03/15/21 09:00	03/15/21 17:54	1
4-Bromofluorobenzene	73		70 - 130				03/15/21 09:00	03/15/21 17:54	1

Client Sample ID: SW-3 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-3

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.0		5.01		mg/kg		03/15/21 12:45	03/15/21 14:21	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	887		49.9		mg/kg		03/15/21 17:00	03/15/21 23:33	1
Gasoline Range Hydrocarbons (GRO)	119		49.9		mg/kg		03/15/21 17:00	03/15/21 23:33	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/15/21 23:33	1
Total TPH	1010		49.9		mg/kg		03/15/21 17:00	03/15/21 23:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 135				03/15/21 17:00	03/15/21 23:33	1
o-Terphenyl	135	**	70 - 135				03/15/21 17:00	03/15/21 23:33	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 19:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 19:44	1
m,p-Xylenes	0.0988		0.00399		mg/kg		03/15/21 09:00	03/15/21 19:44	1
o-Xylene	0.200		0.00200		mg/kg		03/15/21 09:00	03/15/21 19:44	1
Toluene	0.374		0.00200		mg/kg		03/15/21 09:00	03/15/21 19:44	1
Total BTEX	0.673		0.00200		mg/kg		03/15/21 09:00	03/15/21 19:44	1
Total Xylenes	0.299		0.00200		mg/kg		03/15/21 09:00	03/15/21 19:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	70		70 - 130				03/15/21 09:00	03/15/21 19:44	1
4-Bromofluorobenzene	93		70 - 130				03/15/21 09:00	03/15/21 19:44	1

Client Sample ID: SW-4 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-4

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	131		5.02		mg/kg		03/15/21 12:45	03/15/21 14:38	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-4 (20')

Lab Sample ID: 890-343-4

Date Collected: 03/11/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	285		49.8		mg/kg		03/15/21 17:00	03/15/21 23:54	1
Gasoline Range Hydrocarbons (GRO)	69.9		49.8		mg/kg		03/15/21 17:00	03/15/21 23:54	1
Motor Oil Range Hydrocarbons (MRO)	<49.8	U	49.8		mg/kg		03/15/21 17:00	03/15/21 23:54	1
Total TPH	355		49.8		mg/kg		03/15/21 17:00	03/15/21 23:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 135	03/15/21 17:00	03/15/21 23:54	1
o-Terphenyl	142	**	70 - 135	03/15/21 17:00	03/15/21 23:54	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 20:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/15/21 09:00	03/15/21 20:04	1
m,p-Xylenes	0.0780		0.00401		mg/kg		03/15/21 09:00	03/15/21 20:04	1
o-Xylene	0.154		0.00200		mg/kg		03/15/21 09:00	03/15/21 20:04	1
Toluene	0.328		0.00200		mg/kg		03/15/21 09:00	03/15/21 20:04	1
Total BTEX	0.560		0.00200		mg/kg		03/15/21 09:00	03/15/21 20:04	1
Total Xylenes	0.232		0.00200		mg/kg		03/15/21 09:00	03/15/21 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	90		70 - 130	03/15/21 09:00	03/15/21 20:04	1
4-Bromofluorobenzene	93		70 - 130	03/15/21 09:00	03/15/21 20:04	1

Client Sample ID: SW-5 (15')

Lab Sample ID: 890-343-5

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	498		4.95		mg/kg		03/15/21 12:45	03/15/21 14:44	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	115		50.0		mg/kg		03/15/21 17:00	03/16/21 00:14	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 00:14	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 00:14	1
Total TPH	115		50.0		mg/kg		03/15/21 17:00	03/16/21 00:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 135	03/15/21 17:00	03/16/21 00:14	1
o-Terphenyl	125		70 - 135	03/15/21 17:00	03/16/21 00:14	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 20:24	1
Ethylbenzene	0.00300		0.00202		mg/kg		03/15/21 09:00	03/15/21 20:24	1
m,p-Xylenes	0.00630		0.00403		mg/kg		03/15/21 09:00	03/15/21 20:24	1
o-Xylene	0.0169		0.00202		mg/kg		03/15/21 09:00	03/15/21 20:24	1
Toluene	0.00509		0.00202		mg/kg		03/15/21 09:00	03/15/21 20:24	1
Total BTEX	0.0313		0.00202		mg/kg		03/15/21 09:00	03/15/21 20:24	1
Total Xylenes	0.0232		0.00202		mg/kg		03/15/21 09:00	03/15/21 20:24	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-5 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-5

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	92		70 - 130	03/15/21 09:00	03/15/21 20:24	1
4-Bromofluorobenzene	107		70 - 130	03/15/21 09:00	03/15/21 20:24	1

Client Sample ID: SW-6 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-6

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76.9		5.00		mg/kg		03/15/21 12:45	03/15/21 15:00	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 00:35	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 00:35	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 00:35	1
Total TPH	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 135	03/15/21 17:00	03/16/21 00:35	1
o-Terphenyl	133	**	70 - 135	03/15/21 17:00	03/16/21 00:35	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/kg		03/15/21 09:00	03/15/21 20:45	1
Ethylbenzene	<0.00201	U	0.00201		mg/kg		03/15/21 09:00	03/15/21 20:45	1
m,p-Xylenes	<0.00402	U	0.00402		mg/kg		03/15/21 09:00	03/15/21 20:45	1
o-Xylene	<0.00201	U	0.00201		mg/kg		03/15/21 09:00	03/15/21 20:45	1
Toluene	0.102		0.00201		mg/kg		03/15/21 09:00	03/15/21 20:45	1
Total BTEX	0.102		0.00201		mg/kg		03/15/21 09:00	03/15/21 20:45	1
Total Xylenes	<0.00201	U	0.00201		mg/kg		03/15/21 09:00	03/15/21 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	92		70 - 130	03/15/21 09:00	03/15/21 20:45	1
4-Bromofluorobenzene	123		70 - 130	03/15/21 09:00	03/15/21 20:45	1

Client Sample ID: SW-7 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-7

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78.6		5.00		mg/kg		03/15/21 12:45	03/15/21 15:06	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 00:56	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 00:56	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 00:56	1
Total TPH	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 00:56	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-7 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-7

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 135	03/15/21 17:00	03/16/21 00:56	1
o-Terphenyl	116		70 - 135	03/15/21 17:00	03/16/21 00:56	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:05	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/15/21 09:00	03/15/21 21:05	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:05	1
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:05	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:05	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130	03/15/21 09:00	03/15/21 21:05	1
4-Bromofluorobenzene	111		70 - 130	03/15/21 09:00	03/15/21 21:05	1

Client Sample ID: SW-8 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-8

Matrix: Solid

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.7		4.97		mg/kg		03/15/21 12:45	03/15/21 15:11	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 01:17	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 01:17	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 01:17	1
Total TPH	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 135	03/15/21 17:00	03/16/21 01:17	1
o-Terphenyl	128		70 - 135	03/15/21 17:00	03/16/21 01:17	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 21:26	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 21:26	1
m,p-Xylenes	<0.00404	U	0.00404		mg/kg		03/15/21 09:00	03/15/21 21:26	1
o-Xylene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 21:26	1
Toluene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 21:26	1
Total BTEX	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 21:26	1
Total Xylenes	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130	03/15/21 09:00	03/15/21 21:26	1
4-Bromofluorobenzene	110		70 - 130	03/15/21 09:00	03/15/21 21:26	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-9 (10')

Lab Sample ID: 890-343-9

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.5		4.96		mg/kg		03/15/21 12:45	03/15/21 15:17	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:38	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:38	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:38	1
Total TPH	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 135	03/15/21 17:00	03/16/21 01:38	1
o-Terphenyl	134	**	70 - 135	03/15/21 17:00	03/16/21 01:38	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:46	1
m,p-Xylenes	0.0454		0.00398		mg/kg		03/15/21 09:00	03/15/21 21:46	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:46	1
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 21:46	1
Total BTEX	0.0454		0.00199		mg/kg		03/15/21 09:00	03/15/21 21:46	1
Total Xylenes	0.0454		0.00199		mg/kg		03/15/21 09:00	03/15/21 21:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	89		70 - 130	03/15/21 09:00	03/15/21 21:46	1
4-Bromofluorobenzene	117		70 - 130	03/15/21 09:00	03/15/21 21:46	1

Client Sample ID: SW-10 (10')

Lab Sample ID: 890-343-10

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.1		5.04		mg/kg		03/15/21 12:45	03/15/21 15:22	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:59	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:59	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:59	1
Total TPH	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 01:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 135	03/15/21 17:00	03/16/21 01:59	1
o-Terphenyl	132	**	70 - 135	03/15/21 17:00	03/16/21 01:59	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:06	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/15/21 09:00	03/15/21 22:06	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:06	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-10 (10')

Lab Sample ID: 890-343-10

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:06	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:06	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				03/15/21 09:00	03/15/21 22:06	1
4-Bromofluorobenzene	110		70 - 130				03/15/21 09:00	03/15/21 22:06	1

Client Sample ID: SW-11 (10')

Lab Sample ID: 890-343-11

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.6		5.02		mg/kg		03/15/21 12:45	03/15/21 15:28	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 02:41	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 02:41	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 02:41	1
Total TPH	<50.0	U	50.0		mg/kg		03/15/21 17:00	03/16/21 02:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 135				03/15/21 17:00	03/16/21 02:41	1
o-Terphenyl	118		70 - 135				03/15/21 17:00	03/16/21 02:41	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:27	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/15/21 09:00	03/15/21 22:27	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:27	1
Toluene	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:27	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:27	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/15/21 09:00	03/15/21 22:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				03/15/21 09:00	03/15/21 22:27	1
4-Bromofluorobenzene	111		70 - 130				03/15/21 09:00	03/15/21 22:27	1

Client Sample ID: SW-2 (10')

Lab Sample ID: 890-343-12

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 300.0 - Chloride - EPA 300.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.9		5.03		mg/kg		03/15/21 12:45	03/15/21 15:33	1

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 03:02	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-2 (10')

Lab Sample ID: 890-343-12

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Method: 8015 NM - TPH - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 03:02	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 03:02	1
Total TPH	<49.9	U	49.9		mg/kg		03/15/21 17:00	03/16/21 03:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 135				03/15/21 17:00	03/16/21 03:02	1
o-Terphenyl	123		70 - 135				03/15/21 17:00	03/16/21 03:02	1

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 22:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 22:47	1
m,p-Xylenes	<0.00404	U	0.00404		mg/kg		03/15/21 09:00	03/15/21 22:47	1
o-Xylene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 22:47	1
Toluene	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 22:47	1
Total BTEX	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 22:47	1
Total Xylenes	<0.00202	U	0.00202		mg/kg		03/15/21 09:00	03/15/21 22:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130				03/15/21 09:00	03/15/21 22:47	1
4-Bromofluorobenzene	121		70 - 130				03/15/21 09:00	03/15/21 22:47	1

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO	OTPH
		(70-135)	(70-135)
890-343-1	SW-1 (20')	123	129
890-343-2	SW-2 (20')	130	128
890-343-3	SW-3 (20')	127	135 **
890-343-4	SW-4 (20')	126	142 **
890-343-5	SW-5 (15')	114	125
890-343-6	SW-6 (15')	117	133 **
890-343-7	SW-7 (15')	108	116
890-343-8	SW-8 (15')	116	128
890-343-9	SW-9 (10')	117	134 **
890-343-10	SW-10 (10')	119	132 **
890-343-11	SW-11 (10')	111	118
890-343-12	SW-2 (10')	114	123
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Matrix: SOIL

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB	
		(70-130)	
7723410-1-BKS	Lab Control Sample	102	
7723410-1-BLK	Method Blank	102	
7723410-1-BSD	Lab Control Sample Dup	104	
Surrogate Legend			
BFB = 4-Bromofluorobenzene			

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB	DFBZ
		(70-130)	(70-130)
890-343-1	SW-1 (20')	92	84
890-343-2	SW-2 (20')	73	72
890-343-3	SW-3 (20')	93	70
890-343-4	SW-4 (20')	93	90
890-343-5	SW-5 (15')	107	92
890-343-6	SW-6 (15')	123	92
890-343-7	SW-7 (15')	111	100
890-343-8	SW-8 (15')	110	103
890-343-9	SW-9 (10')	117	89
890-343-10	SW-10 (10')	110	102
890-343-11	SW-11 (10')	111	102
890-343-12	SW-2 (10')	121	101
Surrogate Legend			
BFB = 4-Bromofluorobenzene			
DFBZ = 1,4-Difluorobenzene			

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Method: 300.0 - Chloride - EPA 300.0

Lab Sample ID: 7723353-1-BLK
Matrix: SOIL
Analysis Batch: 3153672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153672_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/15/21 12:45	03/15/21 12:47	1

Lab Sample ID: 7723353-1-BKS
Matrix: SOIL
Analysis Batch: 3153672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153672_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	256		mg/kg		102	80 - 120

Lab Sample ID: 7723353-1-BSD
Matrix: SOIL
Analysis Batch: 3153672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3153672_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	256		mg/kg		102	80 - 120	0	20

Lab Sample ID: 691740-003 S
Matrix: SOIL
Analysis Batch: 3153672

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3153672_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	37.0		251	307		mg/kg		108	80 - 120

Lab Sample ID: 691740-003 SD
Matrix: SOIL
Analysis Batch: 3153672

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3153672_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	37.0		251	307		mg/kg		108	80 - 120	0	20

Method: 8015 NM - TPH - SW846 8015B TPH ORO

Lab Sample ID: 7723404-1-BLK
Matrix: SOIL
Analysis Batch: 3153793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3153793_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/15/21 17:00	03/15/21 21:07	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/15/21 17:00	03/15/21 21:07	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/15/21 17:00	03/15/21 21:07	1

Lab Sample ID: 7723404-1-BKS
Matrix: SOIL
Analysis Batch: 3153793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3153793_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	1290		mg/kg		129	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	1120		mg/kg		112	70 - 135

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Method: 8015 NM - TPH - SW846 8015B TPH ORO (Continued)

Lab Sample ID: 7723404-1-BSD

Matrix: SOIL

Analysis Batch: 3153793

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3153793_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1250		mg/kg		125	70 - 135	3	20
Gasoline Range Hydrocarbons (GRO)	1000	1060		mg/kg		106	70 - 135	6	20

Lab Sample ID: 691740-001 S

Matrix: SOIL

Analysis Batch: 3153793

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3153793_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1190		998	2400		mg/kg		121	70 - 135		
Gasoline Range Hydrocarbons (GRO)	115		998	1160		mg/kg		105	70 - 135		

Lab Sample ID: 691740-001 SD

Matrix: SOIL

Analysis Batch: 3153793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3153793_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1190		999	2360		mg/kg		117	70 - 135	2	20
Gasoline Range Hydrocarbons (GRO)	115		999	1140		mg/kg		103	70 - 135	2	20

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds

Lab Sample ID: 7723410-1-BLK

Matrix: SOIL

Analysis Batch: 3153756

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3153756_P

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

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

Lab Sample ID: 7723410-1-BKS

Matrix: SOIL

Analysis Batch: 3153756

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3153756_P

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

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QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Method: 8021B - BTEX - SW846 8021 Volatile Organic Compounds (Continued)

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

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

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

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

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

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

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

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Subcontract

Analysis Batch: 3153672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-1	SW-1 (20')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-2	SW-2 (20')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-3	SW-3 (20')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-4	SW-4 (20')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-5	SW-5 (15')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-6	SW-6 (15')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-7	SW-7 (15')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-8	SW-8 (15')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-9	SW-9 (10')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-10	SW-10 (10')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-11	SW-11 (10')	Total/NA	Solid	300.0 - Chloride	3153672_P
890-343-12	SW-2 (10')	Total/NA	Solid	300.0 - Chloride	3153672_P
7723353-1-BLK	Method Blank	Total/NA	SOIL	300.0 - Chloride	3153672_P
7723353-1-BKS	Lab Control Sample	Total/NA	SOIL	300.0 - Chloride	3153672_P
7723353-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	300.0 - Chloride	3153672_P
691740-003 S	Matrix Spike	Total/NA	SOIL	300.0 - Chloride	3153672_P
691740-003 SD	Matrix Spike Duplicate	Total/NA	SOIL	300.0 - Chloride	3153672_P

Analysis Batch: 3153756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-1	SW-1 (20')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-2	SW-2 (20')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-3	SW-3 (20')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-4	SW-4 (20')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-5	SW-5 (15')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-6	SW-6 (15')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-7	SW-7 (15')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-8	SW-8 (15')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-9	SW-9 (10')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-10	SW-10 (10')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-11	SW-11 (10')	Total/NA	Solid	8021B - BTEX	3153756_P
890-343-12	SW-2 (10')	Total/NA	Solid	8021B - BTEX	3153756_P
7723410-1-BLK	Method Blank	Total/NA	SOIL	8021B - BTEX	3153756_P
7723410-1-BKS	Lab Control Sample	Total/NA	SOIL	8021B - BTEX	3153756_P
7723410-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8021B - BTEX	3153756_P

Analysis Batch: 3153793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-1	SW-1 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-2	SW-2 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-3	SW-3 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-4	SW-4 (20')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-5	SW-5 (15')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-6	SW-6 (15')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-7	SW-7 (15')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-8	SW-8 (15')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-9	SW-9 (10')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-10	SW-10 (10')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-11	SW-11 (10')	Total/NA	Solid	8015 NM - TPH	3153793_P
890-343-12	SW-2 (10')	Total/NA	Solid	8015 NM - TPH	3153793_P
7723404-1-BLK	Method Blank	Total/NA	SOIL	8015 NM - TPH	3153793_P

Eurofins Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Subcontract (Continued)

Analysis Batch: 3153793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
7723404-1-BKS	Lab Control Sample	Total/NA	SOIL	8015 NM - TPH	3153793_P
7723404-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015 NM - TPH	3153793_P
691740-001 S	Matrix Spike	Total/NA	SOIL	8015 NM - TPH	3153793_P
691740-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	8015 NM - TPH	3153793_P

Prep Batch: 3153672_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-1	SW-1 (20')	Total/NA	Solid	E300P	
890-343-2	SW-2 (20')	Total/NA	Solid	E300P	
890-343-3	SW-3 (20')	Total/NA	Solid	E300P	
890-343-4	SW-4 (20')	Total/NA	Solid	E300P	
890-343-5	SW-5 (15')	Total/NA	Solid	E300P	
890-343-6	SW-6 (15')	Total/NA	Solid	E300P	
890-343-7	SW-7 (15')	Total/NA	Solid	E300P	
890-343-8	SW-8 (15')	Total/NA	Solid	E300P	
890-343-9	SW-9 (10')	Total/NA	Solid	E300P	
890-343-10	SW-10 (10')	Total/NA	Solid	E300P	
890-343-11	SW-11 (10')	Total/NA	Solid	E300P	
890-343-12	SW-2 (10')	Total/NA	Solid	E300P	
7723353-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723353-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723353-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691740-003 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691740-003 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3153756_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-1	SW-1 (20')	Total/NA	Solid	SW5035A	
890-343-2	SW-2 (20')	Total/NA	Solid	SW5035A	
890-343-3	SW-3 (20')	Total/NA	Solid	SW5035A	
890-343-4	SW-4 (20')	Total/NA	Solid	SW5035A	
890-343-5	SW-5 (15')	Total/NA	Solid	SW5035A	
890-343-6	SW-6 (15')	Total/NA	Solid	SW5035A	
890-343-7	SW-7 (15')	Total/NA	Solid	SW5035A	
890-343-8	SW-8 (15')	Total/NA	Solid	SW5035A	
890-343-9	SW-9 (10')	Total/NA	Solid	SW5035A	
890-343-10	SW-10 (10')	Total/NA	Solid	SW5035A	
890-343-11	SW-11 (10')	Total/NA	Solid	SW5035A	
890-343-12	SW-2 (10')	Total/NA	Solid	SW5035A	
7723410-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7723410-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7723410-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	

Prep Batch: 3153793_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-1	SW-1 (20')	Total/NA	Solid	SW8015P	
890-343-2	SW-2 (20')	Total/NA	Solid	SW8015P	

Eurofins Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Subcontract (Continued)

Prep Batch: 3153793_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-343-3	SW-3 (20')	Total/NA	Solid	SW8015P	
890-343-4	SW-4 (20')	Total/NA	Solid	SW8015P	
890-343-5	SW-5 (15')	Total/NA	Solid	SW8015P	
890-343-6	SW-6 (15')	Total/NA	Solid	SW8015P	
890-343-7	SW-7 (15')	Total/NA	Solid	SW8015P	
890-343-8	SW-8 (15')	Total/NA	Solid	SW8015P	
890-343-9	SW-9 (10')	Total/NA	Solid	SW8015P	
890-343-10	SW-10 (10')	Total/NA	Solid	SW8015P	
890-343-11	SW-11 (10')	Total/NA	Solid	SW8015P	
890-343-12	SW-2 (10')	Total/NA	Solid	SW8015P	
7723404-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7723404-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7723404-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
691740-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
691740-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-1 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 14:10	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/15/21 22:09	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 17:34	KTL	XM

Client Sample ID: SW-2 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 14:16	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/15/21 23:12	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 17:54	KTL	XM

Client Sample ID: SW-3 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 14:21	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/15/21 23:33	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 19:44	KTL	XM

Client Sample ID: SW-4 (20')

Date Collected: 03/11/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 14:38	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/15/21 23:54	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 20:04	KTL	XM

Eurofins Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-5 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 14:44	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 00:14	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 20:24	KTL	XM

Client Sample ID: SW-6 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:00	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 00:35	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 20:45	KTL	XM

Client Sample ID: SW-7 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:06	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 00:56	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 21:05	KTL	XM

Client Sample ID: SW-8 (15')

Date Collected: 03/12/21 00:00

Date Received: 03/12/21 14:28

Lab Sample ID: 890-343-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:11	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 01:17	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 21:26	KTL	XM

Eurofins Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Client Sample ID: SW-9 (10')

Lab Sample ID: 890-343-9

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:17	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 01:38	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 21:46	KTL	XM

Client Sample ID: SW-10 (10')

Lab Sample ID: 890-343-10

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:22	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 01:59	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 22:06	KTL	XM

Client Sample ID: SW-11 (10')

Lab Sample ID: 890-343-11

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:28	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 02:41	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 22:27	KTL	XM

Client Sample ID: SW-2 (10')

Lab Sample ID: 890-343-12

Date Collected: 03/12/21 00:00

Matrix: Solid

Date Received: 03/12/21 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	E300P		1	3153672_P	03/15/21 12:45		XM
Total/NA	Analysis	300.0 - Chloride		1	3153672	03/15/21 15:33	CHE	XM
Total/NA	Prep	SW8015P		1	3153793_P	03/15/21 17:00		XM
Total/NA	Analysis	8015 NM - TPH		1	3153793	03/16/21 03:02	ARM	XM
Total/NA	Prep	SW5035A		1	3153756_P	03/15/21 09:00		XM
Total/NA	Analysis	8021B - BTEX		1	3153756	03/15/21 22:47	KTL	XM

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Laboratory: Eurofins Midland

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

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

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Method	Method Description	Protocol	Laboratory
300.0	EPA 300.0	EPA	XM
8015B	SW846 8015B TPH ORO	SW846	XM
8021	SW846 8021 Volatile Organic Compounds	SW846	XM

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery #2

Job ID: 890-343-1
SDG: 212C-MD-02003

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-343-1	SW-1 (20')	Solid	03/11/21 00:00	03/12/21 14:28	
890-343-2	SW-2 (20')	Solid	03/11/21 00:00	03/12/21 14:28	
890-343-3	SW-3 (20')	Solid	03/11/21 00:00	03/12/21 14:28	
890-343-4	SW-4 (20')	Solid	03/11/21 00:00	03/12/21 14:28	
890-343-5	SW-5 (15')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-6	SW-6 (15')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-7	SW-7 (15')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-8	SW-8 (15')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-9	SW-9 (10')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-10	SW-10 (10')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-11	SW-11 (10')	Solid	03/12/21 00:00	03/12/21 14:28	
890-343-12	SW-2 (10')	Solid	03/12/21 00:00	03/12/21 14:28	

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901W 73rd Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-2946



890-343 Chain of Custody

Page 1 of 2

3/16/2021

Client Name: EOG

Site Manager: Brittany Long

Project Name: E1 Paso 23 Federal Tank Battery #2

Project Location: Eddy County, NM

Project #:

Invoice to: EOG Todd Wells

Receiving Laboratory: Xenco

Sampler Signature: *Grand House*

Comments:

SAMPLE IDENTIFICATION

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None		
	SW-1 (20')	3/11/21			X			X			
	SW-2 (20')										
	SW-3 (20')										
	SW-4 (20')										
	SW-5 (15')	3/12/21									
	SW-6 (15')										
	SW-7 (15')										
	SW-8 (15')										
	SW-9 (10')										
	SW-10 (10')										

Relinquished by: *Grand House*

Received by: Cec

Date: 3-12-21

Time: 1428

Relinquished by: *Grand House*

Received by: Cec

Date: 3-12-21

Time: 1428

Relinquished by: *Grand House*

Received by: Cec

Date: 3-12-21

Time: 1428

Relinquished by: *Grand House*

Received by: Cec

Date: 3-12-21

Time: 1428

Relinquished by: *Grand House*

Received by: Cec

Date: 3-12-21

Time: 1428

ANALYSIS REQUEST

(Circle or Specify Method No.)

☒	BTEX 8021B	BTEX 8260B
☒	TPH TX1005 (Ext to C35)	
☒	TPH 8015M (GRO - DRO - ORO - MRO)	
☒	PAH 8270C	
☒	Total Metals Ag As Ba Cd Cr Pb Se Hg	
☒	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
☒	TCLP Volatiles	
☒	TCLP Semi Volatiles	
☒	RCI	
☒	GC/MS Vol. 8260B / 624	
☒	GC/MS Semi. Vol. 8270C/625	
☒	PCB's 8082 / 608	
☒	NORM	
☒	PLM (Asbestos)	
☒	Chloride	
☒	Chloride Sulfate TDS	
☒	General Water Chemistry (see attached list)	
☒	Anion/Cation Balance	
☒	Hold	

LAB USE ONLY

REMARKS:

STANDARD

Sample Temperature

☒ RUSH: Same Day 24 hr 48 hr 72 hr
☐ Rush Charges Authorized
☐ Special Report Limits or TRRP Report

2.2/2.0

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:



Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
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Laboratory Job ID: 890-375-1

Laboratory Sample Delivery Group: 212c-md-02003
Client Project/Site: El Paso 23 Federal Tank Battery

For:

Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Attn: Clair Gonzales

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

Authorized for release by:
3/19/2021 4:40:42 PM

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

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Laboratory Job ID: 890-375-1
SDG: 212c-md-02003

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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Job ID: 890-375-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-375-1****Receipt**

The samples were received on 3/17/2021 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BH-6 (20') (890-375-1), SW-1 (20') (890-375-2), SW-2 (20') (890-375-3), SW-3 (20') (890-375-4) and SW-4 (20') (890-375-5).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Client Sample ID: BH-6 (20')

Lab Sample ID: 890-375-1

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00494		0.00198		mg/Kg		03/18/21 12:09	03/18/21 13:32	1
Ethylbenzene	0.00922		0.00198		mg/Kg		03/18/21 12:09	03/18/21 13:32	1
Toluene	0.0495		0.00198		mg/Kg		03/18/21 12:09	03/18/21 13:32	1
Total BTEX	0.0854		0.00198		mg/Kg		03/18/21 12:09	03/18/21 13:32	1
Xylenes, Total	0.0217		0.00396		mg/Kg		03/18/21 12:09	03/18/21 13:32	1
m-Xylene & p-Xylene	0.0169		0.00396		mg/Kg		03/18/21 12:09	03/18/21 13:32	1
o-Xylene	0.00481		0.00198		mg/Kg		03/18/21 12:09	03/18/21 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	03/18/21 12:09	03/18/21 13:32	1
1,4-Difluorobenzene (Surr)	85		70 - 130	03/18/21 12:09	03/18/21 13:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 12:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 12:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 12:44	1
Total TPH	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	03/18/21 12:03	03/18/21 12:44	1
o-Terphenyl	96		70 - 130	03/18/21 12:03	03/18/21 12:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1310		25.0		mg/Kg			03/18/21 18:12	5

Client Sample ID: SW-1 (20')

Lab Sample ID: 890-375-2

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/21 12:09	03/18/21 13:53	1
Ethylbenzene	0.00246		0.00199		mg/Kg		03/18/21 12:09	03/18/21 13:53	1
Toluene	0.00846		0.00199		mg/Kg		03/18/21 12:09	03/18/21 13:53	1
Total BTEX	0.0152		0.00199		mg/Kg		03/18/21 12:09	03/18/21 13:53	1
Xylenes, Total	0.00431		0.00398		mg/Kg		03/18/21 12:09	03/18/21 13:53	1
m-Xylene & p-Xylene	0.00431		0.00398		mg/Kg		03/18/21 12:09	03/18/21 13:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/21 12:09	03/18/21 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	03/18/21 12:09	03/18/21 13:53	1
1,4-Difluorobenzene (Surr)	97		70 - 130	03/18/21 12:09	03/18/21 13:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 14:07	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Client Sample ID: SW-1 (20')

Lab Sample ID: 890-375-2

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 14:07	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 14:07	1
Total TPH	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 14:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				03/18/21 12:03	03/18/21 14:07	1
o-Terphenyl	94		70 - 130				03/18/21 12:03	03/18/21 14:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2220		24.8		mg/Kg			03/18/21 18:28	5

Client Sample ID: SW-2 (20')

Lab Sample ID: 890-375-3

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
Toluene	0.00536		0.00198		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
Total BTEX	0.00536		0.00198		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/18/21 12:09	03/18/21 14:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				03/18/21 12:09	03/18/21 14:13	1
1,4-Difluorobenzene (Surr)	98		70 - 130				03/18/21 12:09	03/18/21 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 14:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 14:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 14:28	1
Total TPH	<49.9	U	49.9		mg/Kg		03/18/21 12:03	03/18/21 14:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130				03/18/21 12:03	03/18/21 14:28	1
o-Terphenyl	85		70 - 130				03/18/21 12:03	03/18/21 14:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2180		25.1		mg/Kg			03/18/21 18:33	5

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Client Sample ID: SW-3 (20')

Lab Sample ID: 890-375-4

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/21 12:09	03/18/21 14:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/18/21 12:09	03/18/21 14:34	1
Toluene	0.00366		0.00199		mg/Kg		03/18/21 12:09	03/18/21 14:34	1
Total BTEX	0.00366		0.00199		mg/Kg		03/18/21 12:09	03/18/21 14:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/18/21 12:09	03/18/21 14:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/18/21 12:09	03/18/21 14:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/21 12:09	03/18/21 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/18/21 12:09	03/18/21 14:34	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/18/21 12:09	03/18/21 14:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/21 12:03	03/18/21 14:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/21 12:03	03/18/21 14:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/21 12:03	03/18/21 14:49	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/21 12:03	03/18/21 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	03/18/21 12:03	03/18/21 14:49	1
o-Terphenyl	88		70 - 130	03/18/21 12:03	03/18/21 14:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2330		25.2		mg/Kg			03/18/21 18:38	5

Client Sample ID: SW-4 (20')

Lab Sample ID: 890-375-5

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/21 12:09	03/18/21 14:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/21 12:09	03/18/21 14:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/21 12:09	03/18/21 14:54	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/18/21 12:09	03/18/21 14:54	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/18/21 12:09	03/18/21 14:54	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/18/21 12:09	03/18/21 14:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/21 12:09	03/18/21 14:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	03/18/21 12:09	03/18/21 14:54	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/18/21 12:09	03/18/21 14:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 15:09	1

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Client Sample ID: SW-4 (20')

Lab Sample ID: 890-375-5

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 15:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 15:09	1
Total TPH	<49.8	U	49.8		mg/Kg		03/18/21 12:03	03/18/21 15:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				03/18/21 12:03	03/18/21 15:09	1
o-Terphenyl	105		70 - 130				03/18/21 12:03	03/18/21 15:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1560		24.9		mg/Kg			03/18/21 18:43	5

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

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)
890-375-1	BH-6 (20')	87	85
890-375-2	SW-1 (20')	99	97
890-375-3	SW-2 (20')	106	98
890-375-4	SW-3 (20')	107	101
890-375-5	SW-4 (20')	102	98
LCS 880-508/1-B	Lab Control Sample	99	98
LCSD 880-508/2-B	Lab Control Sample Dup	100	100
MB 880-500/5-A	Method Blank	103	94
MB 880-508/5-B	Method Blank	100	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)
890-375-1	BH-6 (20')	103	96
890-375-1 MS	BH-6 (20')	109	96
890-375-1 MSD	BH-6 (20')	106	92
890-375-2	SW-1 (20')	102	94
890-375-3	SW-2 (20')	95	85
890-375-4	SW-3 (20')	93	88
890-375-5	SW-4 (20')	108	105
LCS 880-556/2-A	Lab Control Sample	122	109
LCSD 880-556/3-A	Lab Control Sample Dup	114	102
MB 880-556/1-A	Method Blank	96	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-500/5-A

Matrix: Solid

Analysis Batch: 528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/17/21 15:42	03/18/21 02:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				03/17/21 15:42	03/18/21 02:06	1
1,4-Difluorobenzene (Surr)	94		70 - 130				03/17/21 15:42	03/18/21 02:06	1

Lab Sample ID: MB 880-508/5-B

Matrix: Solid

Analysis Batch: 528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/21 15:47	03/18/21 12:22	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				03/16/21 15:47	03/18/21 12:22	1
1,4-Difluorobenzene (Surr)	95		70 - 130				03/16/21 15:47	03/18/21 12:22	1

Lab Sample ID: LCS 880-508/1-B

Matrix: Solid

Analysis Batch: 528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08775		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.09672		mg/Kg		97	70 - 130
Toluene	0.100	0.09571		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1988		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09865		mg/Kg		99	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	99		70 - 130				
1,4-Difluorobenzene (Surr)	98		70 - 130				

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

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

Lab Sample ID: LCSD 880-508/2-B

Matrix: Solid

Analysis Batch: 528

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09498		mg/Kg		95	70 - 130	8	35
Ethylbenzene	0.100	0.1040		mg/Kg		104	70 - 130	7	35
Toluene	0.100	0.1015		mg/Kg		101	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2126		mg/Kg		106	70 - 130	7	35
o-Xylene	0.100	0.1053		mg/Kg		105	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-556/1-A

Matrix: Solid

Analysis Batch: 557

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/21 09:00	03/18/21 11:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/21 09:00	03/18/21 11:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/21 09:00	03/18/21 11:19	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/21 09:00	03/18/21 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	03/18/21 09:00	03/18/21 11:19	1
o-Terphenyl	91		70 - 130	03/18/21 09:00	03/18/21 11:19	1

Lab Sample ID: LCS 880-556/2-A

Matrix: Solid

Analysis Batch: 557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1117		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1023		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: LCSD 880-556/3-A

Matrix: Solid

Analysis Batch: 557

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1111		mg/Kg		111	70 - 130	0	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

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

Lab Sample ID: LCSD 880-556/3-A

Matrix: Solid

Analysis Batch: 557

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 556

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Diesel Range Organics (Over C10-C28)	1000	954.5		mg/Kg		95	70 - 130	7	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	114		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 890-375-1 MS

Matrix: Solid

Analysis Batch: 557

Client Sample ID: BH-6 (20')

Prep Type: Total/NA

Prep Batch: 556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1063		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	960.1		mg/Kg		93	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	96		70 - 130								

Lab Sample ID: 890-375-1 MSD

Matrix: Solid

Analysis Batch: 557

Client Sample ID: BH-6 (20')

Prep Type: Total/NA

Prep Batch: 556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1004		mg/Kg		97	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	929.2		mg/Kg		90	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	92		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-566/1-A

Matrix: Solid

Analysis Batch: 568

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/18/21 17:57	1

Lab Sample ID: LCS 880-566/2-A

Matrix: Solid

Analysis Batch: 568

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	250	229.9		mg/Kg		92	90 - 110		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-566/3-A

Matrix: Solid

Analysis Batch: 568

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	228.7		mg/Kg		91	90 - 110	1	20

Lab Sample ID: 890-375-1 MS

Matrix: Solid

Analysis Batch: 568

Client Sample ID: BH-6 (20')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1310		250	2539	4	mg/Kg		493	90 - 110		

Lab Sample ID: 890-375-1 MSD

Matrix: Solid

Analysis Batch: 568

Client Sample ID: BH-6 (20')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1310		250	2554	4	mg/Kg		499	90 - 110	1	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

GC VOA

Prep Batch: 500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-500/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1	BH-6 (20')	Total/NA	Solid	5035	
890-375-2	SW-1 (20')	Total/NA	Solid	5035	
890-375-3	SW-2 (20')	Total/NA	Solid	5035	
890-375-4	SW-3 (20')	Total/NA	Solid	5035	
890-375-5	SW-4 (20')	Total/NA	Solid	5035	
MB 880-508/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-508/1-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-508/2-B	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1	BH-6 (20')	Total/NA	Solid	8021B	508
890-375-2	SW-1 (20')	Total/NA	Solid	8021B	508
890-375-3	SW-2 (20')	Total/NA	Solid	8021B	508
890-375-4	SW-3 (20')	Total/NA	Solid	8021B	508
890-375-5	SW-4 (20')	Total/NA	Solid	8021B	508
MB 880-500/5-A	Method Blank	Total/NA	Solid	8021B	500
MB 880-508/5-B	Method Blank	Total/NA	Solid	8021B	508
LCS 880-508/1-B	Lab Control Sample	Total/NA	Solid	8021B	508
LCSD 880-508/2-B	Lab Control Sample Dup	Total/NA	Solid	8021B	508

GC Semi VOA

Prep Batch: 556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1	BH-6 (20')	Total/NA	Solid	8015NM Prep	
890-375-2	SW-1 (20')	Total/NA	Solid	8015NM Prep	
890-375-3	SW-2 (20')	Total/NA	Solid	8015NM Prep	
890-375-4	SW-3 (20')	Total/NA	Solid	8015NM Prep	
890-375-5	SW-4 (20')	Total/NA	Solid	8015NM Prep	
MB 880-556/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-556/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-375-1 MS	BH-6 (20')	Total/NA	Solid	8015NM Prep	
890-375-1 MSD	BH-6 (20')	Total/NA	Solid	8015NM Prep	

Analysis Batch: 557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1	BH-6 (20')	Total/NA	Solid	8015B NM	556
890-375-2	SW-1 (20')	Total/NA	Solid	8015B NM	556
890-375-3	SW-2 (20')	Total/NA	Solid	8015B NM	556
890-375-4	SW-3 (20')	Total/NA	Solid	8015B NM	556
890-375-5	SW-4 (20')	Total/NA	Solid	8015B NM	556
MB 880-556/1-A	Method Blank	Total/NA	Solid	8015B NM	556
LCS 880-556/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	556
LCSD 880-556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	556
890-375-1 MS	BH-6 (20')	Total/NA	Solid	8015B NM	556

Eurofins Xenco, Carlsbad

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

GC Semi VOA (Continued)

Analysis Batch: 557 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1 MSD	BH-6 (20')	Total/NA	Solid	8015B NM	556

HPLC/IC

Leach Batch: 566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1	BH-6 (20')	Soluble	Solid	DI Leach	
890-375-2	SW-1 (20')	Soluble	Solid	DI Leach	
890-375-3	SW-2 (20')	Soluble	Solid	DI Leach	
890-375-4	SW-3 (20')	Soluble	Solid	DI Leach	
890-375-5	SW-4 (20')	Soluble	Solid	DI Leach	
MB 880-566/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-566/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-566/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-375-1 MS	BH-6 (20')	Soluble	Solid	DI Leach	
890-375-1 MSD	BH-6 (20')	Soluble	Solid	DI Leach	

Analysis Batch: 568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-375-1	BH-6 (20')	Soluble	Solid	300.0	566
890-375-2	SW-1 (20')	Soluble	Solid	300.0	566
890-375-3	SW-2 (20')	Soluble	Solid	300.0	566
890-375-4	SW-3 (20')	Soluble	Solid	300.0	566
890-375-5	SW-4 (20')	Soluble	Solid	300.0	566
MB 880-566/1-A	Method Blank	Soluble	Solid	300.0	566
LCS 880-566/2-A	Lab Control Sample	Soluble	Solid	300.0	566
LCSD 880-566/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	566
890-375-1 MS	BH-6 (20')	Soluble	Solid	300.0	566
890-375-1 MSD	BH-6 (20')	Soluble	Solid	300.0	566

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Client Sample ID: BH-6 (20')

Lab Sample ID: 890-375-1

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			508	03/18/21 12:09	MR	XM
Total/NA	Analysis	8021B		1	528	03/18/21 13:32	MR	XM
Total/NA	Prep	8015NM Prep			556	03/18/21 12:03	DM	XM
Total/NA	Analysis	8015B NM		1	557	03/18/21 12:44	AM	XM
Soluble	Leach	DI Leach			566	03/18/21 13:50	SC	XM
Soluble	Analysis	300.0		5	568	03/18/21 18:12	CH	XM

Client Sample ID: SW-1 (20')

Lab Sample ID: 890-375-2

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			508	03/18/21 12:09	MR	XM
Total/NA	Analysis	8021B		1	528	03/18/21 13:53	MR	XM
Total/NA	Prep	8015NM Prep			556	03/18/21 12:03	DM	XM
Total/NA	Analysis	8015B NM		1	557	03/18/21 14:07	AM	XM
Soluble	Leach	DI Leach			566	03/18/21 13:50	SC	XM
Soluble	Analysis	300.0		5	568	03/18/21 18:28	CH	XM

Client Sample ID: SW-2 (20')

Lab Sample ID: 890-375-3

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			508	03/18/21 12:09	MR	XM
Total/NA	Analysis	8021B		1	528	03/18/21 14:13	MR	XM
Total/NA	Prep	8015NM Prep			556	03/18/21 12:03	DM	XM
Total/NA	Analysis	8015B NM		1	557	03/18/21 14:28	AM	XM
Soluble	Leach	DI Leach			566	03/18/21 13:50	SC	XM
Soluble	Analysis	300.0		5	568	03/18/21 18:33	CH	XM

Client Sample ID: SW-3 (20')

Lab Sample ID: 890-375-4

Date Collected: 03/17/21 00:00

Matrix: Solid

Date Received: 03/17/21 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			508	03/18/21 12:09	MR	XM
Total/NA	Analysis	8021B		1	528	03/18/21 14:34	MR	XM
Total/NA	Prep	8015NM Prep			556	03/18/21 12:03	DM	XM
Total/NA	Analysis	8015B NM		1	557	03/18/21 14:49	AM	XM
Soluble	Leach	DI Leach			566	03/18/21 13:50	SC	XM
Soluble	Analysis	300.0		5	568	03/18/21 18:38	CH	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Client Sample ID: SW-4 (20') Lab Sample ID: 890-375-5
Date Collected: 03/17/21 00:00 Matrix: Solid
Date Received: 03/17/21 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			508	03/18/21 12:09	MR	XM
Total/NA	Analysis	8021B		1	528	03/18/21 14:54	MR	XM
Total/NA	Prep	8015NM Prep			556	03/18/21 12:03	DM	XM
Total/NA	Analysis	8015B NM		1	557	03/18/21 15:09	AM	XM
Soluble	Leach	DI Leach			566	03/18/21 14:44	SC	XM
Soluble	Analysis	300.0		5	568	03/18/21 18:43	CH	XM

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

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

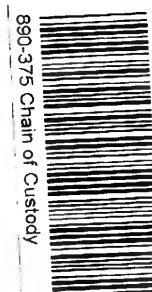
Sample Summary

Client: Tetra Tech, Inc.
Project/Site: El Paso 23 Federal Tank Battery

Job ID: 890-375-1
SDG: 212c-md-02003

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-375-1	BH-6 (20')	Solid	03/17/21 00:00	03/17/21 16:40	
890-375-2	SW-1 (20')	Solid	03/17/21 00:00	03/17/21 16:40	
890-375-3	SW-2 (20')	Solid	03/17/21 00:00	03/17/21 16:40	
890-375-4	SW-3 (20')	Solid	03/17/21 00:00	03/17/21 16:40	
890-375-5	SW-4 (20')	Solid	03/17/21 00:00	03/17/21 16:40	

Analysis Request of Chain of Custody Record

**Tetra Tech, Inc.**901 W. WAIN STREET, STE 100
Midland, Texas 79705
Tel (432) 682-4559 Fax (432) 682-3946

Page 1 of 1

3/19/2021

Client Name:

EOG

Site Manager:

Brittany Long

Project Name:

El Paso 23 Federal Tank Battery

Project Location:

Eddy County

Project #:

212C-MD-02003

Invoice to:

EOG Todd Wells

Receiving Laboratory:

Xenco

Sampler Signature:

Comments:

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)

SAMPLING

YEAR: 2020

DATE

TIME

MATRIX

WATER

SOIL

HCL

HNO₃

ICE

None

PRESERVATIVE METHOD

CONTAINERS

FILTERED (Y/N)

BTX 8021B BTX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

ANALYSIS REQUEST

(Circle or Specify Method No.)

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

LAB USE ONLY

REMARKS:

☐ STANDARD☒ RUSH: Same Day 24 hr 48 hr 72 hr☐ Rush Charges Authorized☐ Special Report Limits or TRRP Report

Sample Temperature

5.2/5.0

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

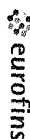
Eurofins Xenco, Carlsbad

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: Tetra Tech, Inc.

Job Number: 890-375-1

SDG Number: 212c-md-02003

Login Number: 375

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 890-375-1

SDG Number: 212c-md-02003

Login Number: 375

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 03/18/21 11:51 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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 8/11/2021

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

Closure Approved by: Robert Hamlet Date: 8/11/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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 25131

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 25131
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM2008542121 EL PASO 23 FED #2, thank you. This closure is approved.	8/11/2021