

February 10, 2022

Mr. Mike Bratcher District Supervisor Oil Conservation Division, District 2 811 S. First Street Artesia, New Mexico 88210

Re: Closure Report ConocoPhillips Heritage Concho Big Papi Federal Com #2H Release Unit Letter C, Section 4, Township 26 South, Range 29 East Eddy County, New Mexico Incident # NAB1922035506 2RP-5562

Dear Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (Heritage Concho) to assess a flowline release that occurred from a flow line associated with the Big Papi Federal Com #2H well (API #30-015-37833), within Unit Letter C, Section 4, Township 26 South, Range 29 East, in Eddy County, New Mexico (Site). The approximate release site coordinates are 32.077580°, -103.991414°. The Site location is shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), a release occurred from the Big Papi Federal Com #2H flowline on July 12, 2019. The release was caused by a flowline rupture. Approximately 240 barrels (bbls) of produced water were released, of which none were reported recovered. The release occurred behind the tank battery in the pasture and migrated into the wash/draw impacting areas measuring approximately 65' x 40' and 1,290' x 15'.

The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on August 8, 2019 and subsequently assigned the Site the Remediation Permit (RP) number 2RP-5562 and Incident Identification (ID) NAB1922035506.

SITE CHARACTERIZATION

A Site characterization was performed for the site, and no lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. However, the site is in a medium karst potential area and migrated into a draw. Also, a watercourse is located within 300' of the site, according to the USGS topographic map.

The nearest water well is listed on the New Mexico State Engineer's (NMOSE) database, approximately 1.50 miles southwest of the site, and has a reported depth to groundwater of 78' below surface. According

TETRA TECH 901 West Wall St., Suite 100, Midland, TX 79701 Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

ConocoPhillips

to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in the area is approximately 125' below surface. The site characterization data is included in Appendix B.

The remediation action levels proposed for the site are largely dependent upon depth to groundwater. As such, the OCD focuses on accurate depth to groundwater estimates. 19.15.11(A)(2) NMAC allows for various means of determining depth to groundwater, including the drilling of groundwater determination boreholes. Therefore, one determination bore was drilled as a portion of the release characterization for this incident. On May 11, 2021, Tetra Tech field personnel met Scarborough Drilling on-site, and supervised the drilling of a groundwater determination borehole, utilizing the air rotary method. The total depth of the determination bore was fifty-seven (57') feet below grade surface. Approximately 20' of screening was placed from thirty-seven to fifty-seven feet downhole, and the borehole was subsequently plugged with 3/8" bentonite chips. The borehole coordinates are approximately 32.07756°, -103.99097°. No groundwater was encountered during drilling operations. The boring log associated with the completed boring is included in Appendix B. The remainder of the site characterization data associated with the Site is also included in Appendix B.

REGULATORY FRAMEWORK

Initially, 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.

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the site characterization and in accordance with Table I of 19.15.29.12 NMAC, the RRALs for the Site are as follows:

Constituent	Site RRALs
Chloride	600 mg/kg
ТРН	100 mg/kg
BTEX	50 mg/kg

The Site is located on BLM land. Correspondence with the BLM regarding the incident is located in Appendix B.

INITIAL SITE ASSESSMENT AND SAMPLING RESULTS

On July 25, 2019, Tetra Tech personnel were onsite to evaluate and sample the release area. A total of fourteen (14) hand auger holes, AH-1 through AH-14, were installed in the pasture area and draw area to total depths ranging from surface to 2.5' below surface. Selected soil samples were collected and submitted to the laboratory 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 C. The results of the sampling are summarized in Table 1. The sample locations are shown on Figures 3.

One auger hole, AH-1, was installed at the top of the draw to a total depth of 0-0.5' below surface. The remaining auger holes, AH-2 through AH-14, were installed within the washout/draw area itself.

ConocoPhillips

Table 1 provides a summary of the analytical results from the assessment sampling event in July 2019. The analytical results associated with AH-9 and AH-11 exceeded RRALs with TPH concentrations of 719 mg/kg and 1,020 mg/kg, respectively. The remainder of the analytical results were below RRALs for TPH and BTEX.

Analytical results associated with AH-1 exceeded the RRAL for chloride at a depth of 0-0.5' below surface. Deeper samples were not collected due to auger refusal in the subsurface lithified material. Analytical results associated with the remaining auger holes, AH-2 through AH-14, in the draw all exceeded RRALs in the upper two feet.

INTERIM REMEDIATION AND CONFIRMATION SAMPLING RESULTS

On August 8 through 13, 2019, Tetra Tech personnel were onsite to remediate the pasture area in the northern portion of the footprint and portions of the wash/draw area to the maximum extent practical. Due to limited access, the BLM requested the draw area be flushed with clean freshwater using a power washer to washout the visual staining and chlorides from the draw. In addition, all the fluids generated during the washing would be captured and properly disposed of. However, no fluids were generated during the washing due to the sandy formation at the bottom of the draw.

The area around AH-1 was excavated to a depth of 6.0' below surface and the floor of the excavation was subsequently sampled as Bottom Hole 2 and Bottom Hole 3. The area around AH-2 was excavated to a depth of 4.0' and the floor of the excavation was subsequently sampled as Bottom Hole 1. Deeper samples were not collected due to the lithified material encountered at the excavation floor.

In total, three (3) bottom hole confirmation samples and six (6) sidewall confirmation samples were collected to ensure proper removal of the impacted soils to the maximum extent possible. 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 excavation depths and sample locations are shown on Figure 4.

Table 2 provides a summary of the confirmation sampling results. All analytical results associated with the collected confirmation samples were below the RRALs for TPH and BTEX. However, the analytical results associated with Bottom Hole 1 were above the RRAL for chloride at 4.0' below surface. This area was excavated to the maximum extent practicable, due to the lithified strata in the subsurface. The sidewall samples collected, NSW, WSW-1, and ESW-2, were below the RRALs for TPH, chloride and BTEX. However, In the area near the draw, sidewalls WSW-2, SSW-1 and ESW-1 exceeded RRALs for chloride. These locations were not further remediated due to the anticipated and unavoidable alteration to the natural course of the draw. This sidewall location connected to the draw, which severely limited access and further remediation in the area. Copies of analytical reports and chain-of-custody documentation are included in Appendix C. Approximately 200 cubic yards of material were excavated and transported offsite to a NMOCD approved disposal facility. The area was then backfilled with clean material to surface grade.

MONITORING WORK PLAN

A Proposed Monitoring Work Plan was prepared by Tetra Tech on behalf of COG and submitted to the NMOCD. The report described the assessment activities, the remediation activities, and the results. The work plan was approved by Robert Hamlet of the NMOCD via email on Wednesday, April 15, 2020.

Conditional approval items included were:

This Workplan/Remediation proposal is approved with the following conditions:

• Monitor the draw area and collect samples quarterly for remainder of the calendar year.

- Excavate sidewall sample point SSW-1 as far permissible without effecting the integrity of the draw or the immediate access to the draw. If this has been accomplished, please outline the work completed in the closure report
- If a catchment/sump system cannot be set up at the bottom of the draw, pull samples near this area and include analytical results in closure report.
- Please communicate results to OCD at year end and let us know if you have any questions.

ADDITIONAL SITE MONITORING AND SAMPLING RESULTS

In order to meet the requirements of the Monitoring Plan and duly address the conditions of approval stipulated by NMOCD, Tetra Tech began conducting routine sampling assessments as part of the aforementioned monitoring plan established for the Site.

Routine Monitoring in 2020

Tetra Tech performed the first monitoring event on February 12, 2020, to evaluate the draw area of the Site and assess chloride concentration levels. The sampling results are summarized in Table 3. As illustrated in Table 3, the areas of auger holes AH-2 through AH-14 in the draw were resampled to total depths ranging from surface to 2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0. Copies of analytical reports and chain-of-custody documentation are included in Appendix C.

Analytical results associated with the areas of auger holes AH-2, AH-3, and AH-6 through AH-14 were below RRALs. However, the area of AH-4 and AH-5 exceeded the RRALs for chloride. Deeper samples were not collected due to auger refusal in the subsurface lithified material for the areas of AH-4 and AH-5.

On May 1, 2020, Tetra Tech performed the second monitoring event to evaluate the draw area and monitor the chloride concentrations. The sampling results are summarized in Table 3. Analytical results associated with AH-2 through AH-14 location in the draw were resampled to total depths ranging from surface to 2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0. Copies of analytical reports and chain-of-custody documentation are included in Appendix C.

Analytical results associated with the the areas of auger holes AH-3, AH-4, and AH-7 through AH-14, had chloride concentrations all below RRALs. The area of AH-2 exceeded RRALs with a chloride concentration of 1,850 mg/kg at surface to 1.0' below surface but was below RRAL for chloride at 1.0'-1.5'. The analytical results associated with AH-5 exceeded RRALs for chloride. Analytical results associated with AH-6 also exceeded RRALs for chloride.

On August 19, 2020, Tetra Tech performed the third monitoring event to evaluate the draw area and monitor both chloride and TPH concentrations. The areas of Bottom Hole-1 and SSW-1 were also re-evaluated, per an email from the BLM dated March 9, 2020. The sampling results are summarized in Table 3. The analytical results associated with Table 3, indicate the areas of AH-4, AH-5, AH-6, AH-9, and AH-11 were resampled to total depths ranging from surface to 2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0. Auger holes AH-9 and AH-11 were also analyzed for TPH method 8015 extended.

Analytical results associated with auger holes AH-4, AH-5, and AH-6 exceeded RRALs for chloride. The analytical results associated with auger holes AH-9 and AH-11 were below RRAL for TPH with concentrations of <50.0 mg/kg at surface to 0.5'. Deeper samples were not collected due to auger refusal in the subsurface lithified material in the areas of AH-4, AH-5, and AH-6.

MONITORING WORK PLAN (CONTINUED)

On December 17, 2020, Tetra Tech submitted an additional monitoring plan to OCD that was received on December 19, 2020. The proposed plan called for the continued sampling in 2021 of the areas of AH-4, AH-5, and AH-6 until chloride concentrations no longer exceeded the RRALs of 600 mg/kg for chloride. Upon successful completion, a closure report could then be drafted and submitted for approval.

Routine Monitoring in 2021

On May 5, 2021, Tetra Tech performed a fourth monitoring event, the first of the 2021 calendar year, to evaluate the draw area and monitor chloride concentrations. The areas of auger holes AH-4, AH-5, and AH-6 were resampled to total depths ranging from 1.0'-2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0. The sampling results are summarized in Table 4.

The analytical results associated with AH-4 were below RRALs at the surface to 1.0', with a concentration of 222 mg/kg, above RRALs at 1.0'-1.5' with a concentration of 681 mg/kg, and again below RRALs at 1.5'-2.0' below surface with a value of 524 mg/kg. The analytical results associated with AH-5 exceeded RRALs with chloride concentrations of 1,710 mg/kg from surface to 1.0', 1,950 mg/kg at 1.0'-1.5', and 5,960 mg/kg from 2.0' to 2.5' below surface. Analytical results associated with AH-6 were below RRAL for chloride and had a measured chloride concentration of 583 mg/kg from surface to 1.0' depth.

On December 12, 2021, Tetra Tech performed a fifth monitoring event to evaluate the draw area and monitor chloride concentrations. The areas of AH-4, AH-5, and AH-6 were resampled to total depths ranging from 1.5' to 2.0' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0. The sampling results are summarized in Table 4.

The analytical results associated with the areas of auger holes AH-4, AH-5, and AH-6 were below RRALs for chloride, with concentrations ranging from 25 mg/kg to 274 mg/kg. The sample locations are shown in Figure 3.

CONCLUSION

Based on the assessment, remedial activities and subsequent monitoring activities performed, COP requests closure of this incident. The final C-141 is enclosed in Appendix A.

If you have any questions concerning the soil assessment or the remediation activities for the Site, please call me at (432) 250-9943.

Sincerely, Tetra Tech, Inc.

Birbonital

Colton Bickerstaff Project Manager

cc: Ms. Jacqui Harris, GPBU - ConocoPhillips Mr. Charles Beauvais, GPBU - ConocoPhillips

List of Attachments

Figures:

Figure 1 – Site Overview Map

Figure 2 – Site Topographic Map

Figure 3 – Release Assessment Map

Figure 4 – Proposed Remediation Extents

Tables:

Table 1 – Summary of Analytical Results – Initial Soil Assessment

Table 2 - Summary of Analytical Results - Remediation Confirmation Sampling

Table 3 – Summary of Analytical Results – 2020 Monitoring Plan

Table 4 – Summary of Analytical Results – 2021 Monitoring Plan

Appendices:

Appendix A – C-141 Forms

Appendix B – Site Characterization Data

Appendix C – Laboratory Analytical Reports

Appendix D – Photographic Documentation

ConocoPhillips

FIGURES



Released to Imaging: 3/15/2022 9:42:49 AM

Received by OCD: 2/21/2022 9:08:02 AM

<u>Page 9 of 220</u>





Approximate Scale in Feet



•

۲

 \mathbf{x}

Г

e: "New Mexico". 32° 4'39.29"N, 103°59 ary 2019.October 14,2019.

LATITUDE

32.077088

32.077201

32.077202

32.077201

32.077119

32.077182°

32.077074°

32.076870

32.076639

32.076427

32.076159

32.075970

32.075813°

32.075562

32.075357

32.075182°

32.075189°

32.075094°

212C-MD-0185

Date: 01-09

LONGITUDE -103.991435

-103.991422

-103.991461

-103.99144

-103.991432

-103.991443°

-103.991443°

-103.991412°

-103.991428°

-103.991353°

-103.991326

-103.991227

-103.991426°

-103.991386°

-103 991381°

-103.991494

-103.991717°

-103.992039°

103.992100

FIGURE

3

Received by OCD: 2/21/2022 9:08:02 AM



Released to Imaging: 3/15/2022 9:42:49 AM

TABLES

Table 1- Initial Site Assessment ConocoPhillips (hCXO) Big Papi Federal Com #002H- NAB1922035506 Eddy County, New Mexico

Sample ID	Sample	Sample	Soil S	Status		TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
Sample ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-1	7/25/2019	0-0.5	Х		<15.0	36.7	<15.0	36.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	20,700
AH-2	7/25/2019	0-0.5	Х		<15.0	22.8	<15.0	22.8	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	13,300
AH-3	7/25/2019	0-1	Х		<14.9	<14.9	<14.9	<14.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	15,600
	7/25/2019	0-1	Х		<15.0	27.6	<15.0	27.6	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	14,400
AH-4	7/25/2019	1-1.5	Х		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	9,810
	7/25/2019	1.5-2	Х		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	8,450
	7/25/2019	0-1	Х		<15.0	<15.0	<15.0	<15.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	11,300
AH-5	7/25/2019	1-1.5	Х		<15.0	<15.0	<15.0	<15.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	5,000
	7/25/2019	2-2.5	Х		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	< 0.00202	<0.00202	1,250
AH-6	7/25/2019	0-1	Х		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	9,240
AH-7	7/25/2019	0.5	Х		18.9	50.5	<15.0	69.4	0.00345	<0.00198	<0.00198	0.00842	0.0119	15,700
AH-8	7/25/2019	0.5	Х		<15.0	29.9	<15.0	29.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	14,000
AH-9	7/25/2019	0.5	Х		147	523	49.4	719	0.0200	0.00522	0.0446	0.154	0.223	15,400
AH-10	7/25/2019	0.5	Х		<15.0	37.8	<15.0	37.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	12,600
AH-11	7/25/2019	0.5	Х		38.2	903	76.7	1,020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	13,700
AH-12	7/25/2019	0.5	Х		<15.0	170	26.2	196	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	13,300
AH-13	7/25/2019	0.5	Х		<15.0	<15.0	<15.0	<15.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	17,200
AH-14	7/25/2019	0.5	Х		<15.0	<15.0	<15.0	<15.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	12.5

Table 2- Remediation Confirmation Sampling ConocoPhillips (hCXO) Big Papi Federal Com #002H- NAB1922035506 Eddy County, New Mexico

Sample ID Sample		Sample	Soil	Status		TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
Sample ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Background Tronch	8/8/2019	0-1	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Background Trench	8/8/2019	2	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
Bottom Hole 1	8/8/2019	4	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,480
Dettem Hale 2	8/8/2019	4	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	< 0.300	960
Bottom Hole 2	8/13/2019	6	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	< 0.300	112
Bottom Hole 3	8/8/2019	4	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	< 0.300	512
Bottom Hole 5	8/13/2019	6	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
North 1 Sidewall	8/8/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	592
South 1 Sidewall	8/8/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	< 0.300	7,520
West Sidewall 1	8/8/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	< 0.300	272
West Sidewall 2	8/8/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,250
East Sidewall 1	8/8/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,500
East Sidowall 2	8/8/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	< 0.300	64.0
	8/13/2019	-	Х		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0

Table 3- 2020 Monitoring Plan ConocoPhillips (hCXO) Big Papi Federal Com #002H- NAB1922035506 Eddy County, New Mexico

Semale ID	Sample Sample		Soil Status			TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
Sample ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	2/12/2020	0-1	Х		-	-	-	-	-	-	-	-	-	67.4
	2/12/2020	1-1.5	Х		-	-	-	-	-	-	-	-	-	197
Ап-2	5/1/2020	0-1	Х		-	-	-	-	-	-	-	-	-	1,850
	5/1/2020	1-1.5	Х		-	-	-	-	-	-	-	-	-	280
	2/12/2020	0-1	Х		-	_	_	-	_	-	_	-	_	248
AH-3	5/1/2020	0-1	X		-	-	-	-	-	-	-	-	-	18.5
	2/12/2020	0_1	X		_	_	_	_	_		_	_	_	1/12
	2/12/2020	1_1 5	X											192
	2/12/2020	1.5-2	X			_	_		_					607
	5/1/2020	0-1	X		-	-	-	-	-	-	-	-	-	54.2
AH-4	5/1/2020	1-1.5	X		-	_	_	_	_	_	-	-	-	149
	5/1/2020	1.5-2	X		-	-	-	-	-	-	-	-	-	335
	8/19/2020	0-1	Х		-	-	-	-	-	-	-	-	-	3,030
	8/19/2020	1-1.5	Х		-	-	-	-	-	-	-	-	-	5,010
	8/19/2020	1.5-2	Х		-	-	-	-	-	-	-	-	-	3,150
	2/12/2020	0_1	X		_	_	_		_	_	_	_	_	624
	2/12/2020	1-1.5	X			_	_		_					823
	2/12/2020	2-2.5	X		-	_	_		_		_	-	_	1 040
	5/1/2020	0-1	X		-	-	_	-	-	_	-	-	-	902
AH-5	5/1/2020	1-1.5	Х		-	-	-	-	-	-	-	-	-	1.250
	5/1/2020	2-2.5	Х		-	-	-	-	-	-	-	-	-	7,770
	8/19/2020	0-1	Х		-	-	-	-	-	-	-	-	-	1,930
	8/19/2020	1-1.5	Х		-	-	-	-	-	-	-	-	-	1,670
	8/19/2020	2-2.5	Х		-	-	-	-	-	-	-	-	-	1,630
	2/12/2020	0-1	X			_	_	_	_	_	_	_	_	310
AH-6	5/1/2020	0-1	X		-	-	-	-	-	-	_	-	_	977
	8/19/2020	0-1	X		-	-	-	-	-	-	-	-	-	622
	0/10/0000													
AH-7	2/12/2020	0.5	X		-	-	-	-	-	-	-	-	-	69.7
	5/1/2020	0.5	Х		-	-	-	-	-	-	-	-	-	28.3

Table 3- 2020 Monitoring Plan ConocoPhillips (hCXO) Big Papi Federal Com #002H- NAB1922035506 Eddy County, New Mexico

Sample ID	Sample Sample Soil Status		TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride			
Sample ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
ALL 0	2/12/2020	0.5	Х		-	-	-	-	-	-	-	-	-	<9.92
АП-0	5/1/2020	0.5	Х		-	-	-	-	-	-	-	-	-	25.8
	2/12/2020	0.5	Х		-	-	-	-	-	-	-	-	_	29.1
AH-9	5/1/2020	0.5	X		-	-	-	-	-	-	-	-	-	37.5
	8/19/2020	0.5	Х		<50.0	<50.0	<50.0	<50.0	-	-	-	-	-	-
	2/12/2020	0.5	Х		_	_	_	_	_	-	_	_	_	99.2
AH-10	5/1/2020	0.5	X		-	-	-	-	-	-	-	-	-	382
	0/40/0000	0.5	V	[[400
AU 44	2/12/2020	0.5	X		-	-	-	-	-	-	-	-	-	160
AH-11	5/1/2020	0.5	X		-	-	-	-	-	-	-	-	-	277
	8/19/2020	0.5	X		<50.0	<50.0	<50.0	<50.0	-	-	-	-	-	-
AU 42	2/12/2020	0.5	Х		-	-	-	-	-	-	-	-	-	34.4
AU-12	5/1/2020	0.5	Х		-	-	-	-	-	-	-	-	-	23.6
AUL 40	2/12/2020	0.5	Х		-	-	-	-	-	-	-	-	-	29.6
AH-13	5/1/2020	0.5	Х		-	-	-	-	-	-	-	-	-	12.7
	2/12/2020	0.5	Х		-	-	-	-	-	-	-	-	-	15.3
AH-14	5/1/2020	0.5	Х		-	-	-	-	-	-	-	-	-	41.1
South 1 Sidewall	8/19/2020	-	Х		-	-	-	-	-	-	-	-	-	130
	8/19/2020	0-1	Х		-	-	-	-	-	-	-	-	-	122
_	8/19/2020	1-1.5	Х		-	-	-	-	-	-	-	-	-	219
Bottom Hole 1	8/19/2020	2-2.5	X		-	-	-	-	-	-	-	-	-	35.1
	8/19/2020	3.5-4	X		-	-	-	-	-	-	-	-	-	<10.0

Table 4- 2021 Monitoring Plan ConocoPhillips (hCXO) Big Papi Federal Com #002H- NAB1922035506 Eddy County, New Mexico

Sample ID	Sample Sample Soil S		Status		TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride	
Sample ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	5/5/2021	0-1	Х		-	-	-	-	-	-	-	-	-	222
	5/5/2021	1-1.5	Х		-	-	-	-	-	-	-	-	-	681
	5/5/2021	1.5-2	Х		-	-	-	-	-	-	-	-	-	524
A11-4	12/22/2021	0-1	Х		-	-	-	-	-	-	-	-	-	47
	12/22/2021	1-1.5	Х		-	-	-	-	-	-	-	-	-	274
	12/22/2021	1.5-2	Х		-	-	-	-	-	-	-	-	-	100
	5/5/2021	0-1	Х		-	-	-	-	-	-	-	-	-	1,710
	5/5/2021	1-1.5	Х		-	-	-	-	-	-	-	-	-	1,950
	5/5/2021	2-2.5	Х		-	-	-	-	-	-	-	-	-	5,960
АП-Э	12/22/2021	0-1	Х		-	-	-	-	-	-	-	-	-	24.8
	12/22/2021	1-1.5	Х		-	-	-	-	-	-	-	-	-	72.2
	12/22/2021	1.5-2	Х		-	-	-	-	-	-	-	-	-	228
	5/5/2021	0-1	Х		-	-	-	-	-	-	-	-	-	583
AH-6	12/22/2021	0-1	Х		-	-	-	-	-	-	-	-	-	31.1
	12/22/2021	1-1.5	Х		-	-	-	-	-	-	-	-	-	47.5

•

APPENDIX A C-141 Forms

32.07719

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

Page 19 of 220

Incident ID	NAB1922035506
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137			
Contact Name	Jennifer Knowlton	Contact Telephone	(575) 748-1570			
Contact email	JKnowlton@concho.com	Incident # (assigned by OCD)				
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701					

Location of Release Source

Latitude

-103.99144Longitude

(NAD 83 in decimal degrees to 5 decimal places)

Site Name		Big Papi Fede	eral Com #002F	Site Type	Flowline
Date Release	Discovered	July 12, 2019		API# (if applicable)	
Unit Letter	Section	Townshin	Range	County	
C	04	26S	29E	Eddy	

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) Volume Recovered (bbls)

Produced Water	Volume Released (bbls) 240	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Ves 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 release was caused by a ruptured flowline. The flowline is being repaired.

The release was in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Page	2
1 age	-

Oil Conservation Division

Incident ID	NAB1922035506
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? The volume released was greater than 25 barrels.								
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?									
Immediate notice was given by Rebecca Haskell via e-mail July 12, 2019 at 2:44 pm to Mike Bratcher and Jim Amos.									

Initial Response

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

The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: DeAnn Grant	Title: HSE Administrative Assistant
Signature: Deann Opeanst	Date: 7/19/2019
email: agrant@concho.com	
	<u>-</u>
OCD Only	
Received by:	Date:
Signature:	<u>7/19/2019</u> (432) 253-4513 Date:

Received by OCD: 2/21/2022 (9:08:902 3AMM



Received by OCD: 2/21/2022/9:08:02:4MI Form C-141 State of New Mexico

Oil Conservation Division

	Page 22 of 22
Incident ID	NAB1922035506
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>78</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🗹 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗹 Yes 🗌 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🔽 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🔽 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🗹 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🗹 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🔽 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🗹 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🗹 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🖌 Yes 🗌 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🗹 No
Did the release impact areas 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.

Received by OCD: 2/21/202	209:08:02:34MI	Page 23 of 226
		Incident ID
Page 4	Oil Conservation Division	District RP
		Facility ID
		Application ID
I hereby certify that the inform regulations all operators are r public health or the environm failed to adequately investiga addition, OCD acceptance of and/or regulations. Printed Name:	mation given above is true and complete to the required to report and/or file certain release noti tent. The acceptance of a C-141 report by the C tte and remediate contamination that pose a three 'a C-141 report does not relieve the operator of	best of my knowledge and understand that pursuant to OCD rules and ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In Presponsibility for compliance with any other federal, state, or local laws
OCD Only		
Received by:		Date:

Received by OCD: 2/21/2022 9:08:02 AM Form C-141 State of New Mexico

Page 5

Oil Conservation Division

Remediation Plan Checklist: Each of the following items must be included in the plan.

Incident ID	NAB1922035506
District RP	
Facility ID	
Application ID	

Remediation Plan

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Ike Tavarez Title: Sr HSE Supervisor Date: 3/05/2020 Signature: email: itavarez@concho.com Telephone: 432-701-8630 **OCD Only** Date: 4/15/2020 Robert Hamlet Received by: Approved Approved with Attached Conditions of Approval Denied Deferral Approved Date: 4/15/2020 Signature:

Page 6

Oil Conservation Division

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.

<u>Closure Report Attachment Checklist</u> : Each of the following i	items must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.1	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate ODC	C 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 comple and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and ren human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the co accordance with 19.15.29.13 NMAC including notification to the C	ete to the best of my knowledge and understand that pursuant to OCD rules n release notifications and perform corrective actions for releases which S a C-141 report by the OCD does not relieve the operator of liability mediate contamination that pose a threat to groundwater, surface water, a C-141 report does not relieve the operator of responsibility for ations. The responsible party acknowledges they must substantially molitions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Printed Name:	Title:
Signature: /acque /horas	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by: <u>Jennifer Nobui</u>	Date:
Printed Name:	

APPENDIX B Site Characterization Data

Received by OCD: 2/21/2022 9:08:02 AM Karst Potential wap Big Papi Federal Com #2H



2 mi

232.077580°, -103.991414°



212C-	-MD	-02671	[F	FETR	ΑΤΕ	сн				LOG OF BORING GW Determination Boring		Page 1 of 3	
Project	Nar	me: Bi	g Papi F	eder	al Co	om #()02H							
Sorehol	le L	ocation:	GPS C	oordina	ates: 3	2.077	56, -10	03.990	97		Surface Elevation: 2991'			
Borehole Number: GW Determination Boring Boreho										Boreh	e er (in). 8" Date Started: 5/11/2021 Date Finish	ed: 5/11/2021		
	(mdd) (%) (%)										WATER LEVEL OBSERVATIONS While Drilling $\underline{\nabla}$ DRY 24 Hours After Completion of Drilling	, <u>₹</u> D	RY_	
S.	0) NOI	NOL	ERY (ENT	cf)		IDEX	(9		Remarks:			
DEPTH (ft) OPERATION TYPI		SAWIPLE T CHLORIDE SCONCENTRAT	CONCENTRAT	SAMPLE RECOVE	MOISTURE CONT	DRY DENSITY (po		DLASTICITY IN	MINUS NO. 200 (%	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL	_ DIAGRAM	
	$\overline{\lambda}$									a	CALICHE: Light tan to white, cemented, with			
\neg	X	295								<i>•</i>			 Bentonite Seal 	
\neg	为	7									-			
\neg	Y	410								a	-SW- SAND: Light tan to white, loose, fine-grained,			
-	汰										with CALICHE, dry.			
<u>5</u>	Y	202									-			
-	\mathbf{x}										_			
-	\mathbf{x}	277									_			
-	\mathbf{S}										_			
_	$\left\{ \right\}$									• • • • • • • • •	9			
0	$\langle \rangle$	356									-SW- SAND: Light tan, loose, fine to very fine-grained, with CALICHE, dry.			
										••••				
$\left \right\rangle$										•••••				
											14			
		1									-SW- SAND: Tan, loose, fine to very fine-grained,			
	ľ	373								••••				
-	2										—			
-)	X										-			
->	X										-		Blank	
$-\rangle$											_		PVC Well Casing	
.0_)											_			
	\mathbf{x}										_			
	\mathbf{x}													
	\mathbf{x}									 				
	\sum									· · · · · · · · · · · · · · · · · · ·	24			
25	$\langle $	\langle									-SW- SAND: Light brown, very loose, very fine-grained, with CALICHE, dry			
ample	er	Split	on 📕	Aceta	ite Line	er 1	Dpera Types	tion		· · · ·	Auger Notes:			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Shell	by	Vane	Shear	. .		Hol	ow Ste	em []	Air Rotary Temporary well was plugged using bentonite foll	owing ga	auging	
		Bulk	nle 🕅	Califo	ornia			Cor	itinuou ht Aug	s er	Direct Push			
		M Grab		Test	Pit			Muc	d arv		- Drive Casing			
								01	y					

Released to Imaging: 3/15/2022 9:42:49 AM

.

212C-M	1D-02671	Ŧŧ	TETR	ΑΤΕΟ	сн				LOG OF BO	RING GW Determinati	on Borir	ng	2	Page of 3
Project N	lame: Big	Papi Fede	ral Co	om #0	02H								1	
Borehole	Location:	GPS Coordir	nates: 3	2.077	56, -10	3.990	97		Surface Elevation:	2991'				
Borehole Number: GW Determination Boring Boreho									ble 8"	nished	hed: 5/11/2021			
ES ION (ppm) ERY (%) ENT (%)						IDEX	(9		While Drilling $\underline{}$ Remarks:	WATER LEVEL OBSE	RVATION	S illing	<u>₹</u> DF	<u> </u>
DEPTH (ft) OPERATION TYPE	SAMPLE XT CHLORIDE AIS CONCENTRAT	UOC CONCENTRAT SAMPI F RECOVE	MOISTURE CONT	DRY DENSITY (pc		PLASTICITY IN	MINUS NO. 200 (%	GRAPHIC LOG	MATE	RIAL DESCRIPTION		DEPTH (ft)	WELLI	DIAGRAM
30 	Split Spoon Shelby Bulk Sampl		ate Line e Shear fornia	er T	Derati ypes:	ion Holling Galagian Holling Holling Holling Holling	ow Ste er tinuou i ary		-GW- GRAVE with abundant	L: Light tan and brown, very lo SAND, dry. _AY: Dark gray and reddish br ry. s: nporary well was plugged usin /ell.	ose,		wing gau	20' PVC Slotted Screen
	oumpi			1										

212	C-M	1D-0	2671		ÐTI	ETRA	A TEC	н				LOG OF BORING GW Determination Boring
roje	ct N	lame	e: Big	Papi Fe	dera	l Co	m #0	02H				
oreh	nole	Loc	ation:	GPS Coo	rdinat	es: 32	2.0775	56, -10	3.990	97		Surface Elevation: 2991'
oreh	nole	Nur	mber:	GW Det	ermi	natio	on Bo	oring		E	Boreho	ole ter (in). 8" Date Started: 5/11/2021 Date Finished: 5/11/2021
	ES		(mdd) NOI	(ION (ppm)	ERY (%)	ENT (%)	cf)		JDEX	(%		WATER LEVEL OBSERVATIONS While Drilling <u>V DRY</u> 24 Hours After Completion of Drilling <u>V DRY</u> Remarks:
DEPTH (ft)	OPERATION TYP	SAMPLE	CHLORIDE SCONCENTRAT	DI VOC CONCENTRAT	SAMPLE RECOVI	MOISTURE CONT	DRY DENSITY (po	E LIQUID LIMIT		MINUS NO. 200 (9	GRAPHIC LOG	MATERIAL DESCRIPTION
_ _ 55_												
_		1										
											<u> </u>	Bottom of borehole at 57.0 feet.
												Bottom of borehole at 57.0 feet.

Water Well Data Average Depth to Groundwater (ft) **Big Papi Federal #2H Eddy County, New Mexico**

29 East

23 <mark>80</mark>

	25 Sc	outh	28	East	
6	5	4 35	3 32	2	1
	59				Site
7	8	9	10	11	12
18	17	16	15 <mark>48</mark>	14	13
67			49		
19	20	21	22	23	24
	96				\sum
30	29	28	27	26 40	25
	15	90			L.
31	32	33	34	35	36
					40

	26 S	outh	2	28 East	
6	5	4	3	2 120	1 كر
				21	
7	8	9	10	11	12
					100
18	17	16	15	14	13
				120	56
19	20	21	22	23	24
			120		
30	29	28	27	26	25
31	32	33	34	35	36

	25 Sc	outh	29		
6	5	4	3	2	1
40					
	8	9	10	11	12
			40		
18	17	16	15	14	13
			60		
19	20	21	22	23	24
30	29	28	27	26	25
30					
31	32 <mark>98</mark>	33	34	35	36

26 South

<mark>4 Site</mark> 3

22 <mark>57</mark>

78

		26 Sc	outh	30	East	
31		32	33	34	35	36
30		29	28	27	26	25
19		20	21 265 268	22	23	24
18		17	16	15	14	13
7	264	8	9 295	10	11	12 <mark>390</mark>

25 South

30 East

6	5 179	4	3	2	1
	1 80				
7	8	9	10	11	12
	172				
18	17	16	15	14	13
19	20	21	22	23	24 180
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)

- NMOCD Groundwater Data
- 123 Tetra Tech installed temporary wells and field water level
- 143 NMOCD Groundwater map well location

POD suffix indicates the	(R=POD replaced	has bee	n											
POD has been replaced	O=orpha	ned												
& no longer serves a	C=the file	e is	(q	uart	ers a	are	1=NW	/ 2=NI	E 3=SW	(4=SE)				
water right file.)	closed)		(q	uart	ers a	are	smalle	st to la	irgest)	(NAD8	3 UTM in meter	s) (l	n feet)	
		POD												
		Sub-		Q	Q	Q							W	ater
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	Х	Y	DepthWellDept	aWater Co	lumn
<u>C 01354 X-3</u>		CUB	ED	2	1	3	23	26S	29E	598323	3543837	170		
<u>C 02038</u>		С	ED	3	2	4	26	26S	29E	599204	3541992*	200		
<u>C 03507 POD1</u>		С	ED	1	3	3	05	26S	29E	593064	3548313	140	78	62
C 03508 POD1		С	ED	1	3	3	05	26S	29E	593063	3548361	140	75	65
<u>C 03605 POD1</u>		CUB	ED	4	2	3	27	26S	29E	596990	3541983	45	0	45
										1	Average Depth t	o Water:	51 fee	t
											Minimu	m Depth:	0 fee	t
											Maximu	m Depth:	78 fee	t
Record Count: 5														
PLSS Search:														

Township: 26S Range: 29E

*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.

8/6/19 3:52 PM

....

WATER COLUMN/ AVERAGE DEPTH TO WATER USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

US S Water Resources

Data Categor : Groundwater • eographic rea: New Mexico • GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- ull News RSS icon

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

genc code usgs site no list • 320532104001701

Minimum number of levels 1 Save file of selected sites to local disk for future upload

US S 05 104001701 5S 1111

Eddy County, New Mexico Latitude 32 05 32, Longitude 104 00 17 NAD27 Land-surface elevation 2,988 feet above NAVD88 The depth of the well is 128 feet below kand surface. This well is completed in the Rustler ormation (312RSLR) local aquifer.

THIS WCI	is completed in the re	ister officiation (512R5)	Eite) ideal aquiler.				Output formats					
Table o	able of data											
<u>Tab-se</u>	ab-separated data											
Graph o	of data											
Reselec	t period											
\$		\$	\$	\$	¢	¢	\$	\$	\$	\$	\$ \$	
	1958-08-1	9		D	98.63			2		U	U	,
	1978-01-1	3		D	95.23			2		U	U	,
	1987-10-14	4		D	96.69			2		U	U	,
	1992-11-0	3		D	98.13			2		S	U	/

\$	\$	\$
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Water-level approval status	A	Approved for publication Processing and review completed.
Water-level approval status	A	Approved for publication Processing and review completed.

uestions about sites/data _eedback on this web site Automated retrievals Help

Received by OCD: 2/21/2022 9:08:02 AM

Accessibility Plug-Ins OIA Privacy Policies and Notices

USA.gov logo U.S. Department of the Interior U.S. Geological Survey Title: roundwater for New Me ico: Water Levels URL: https://wis/waterdata.usgs.gov.nm.nwis.gwlevels

Page Contact Information: <u>New Mexico Water Data Maintainer</u> Page Last Modified: 2019-08-06 17:55:49 EDT 0.44 0.42 malww02

🙊 NFHL Web Mapping Application

		/		
(II)	✓ Data Layers			► Measur
_				
		.2984 ft		
			Search Result	□ ×
			Y:32.077319 X:-103.991242	
				2975 ft
Deterret	100m			
Released I	v imaging: 5/15/2022 9:42:49 AM			FEMA Bureau of Land Management Texas Par



APPENDIX C Laboratory Analytical Reports
Analytical Report 632174

for Tetra Tech- Midland

Project Manager: Mike Carmona

Pappy's Preference Federal #1

212C-MD-01855

29-JUL-19

Collected By: Client





1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429), North Carolina (483)





29-JUL-19

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: XENCO Report No(s): 632174 Pappy's Preference Federal #1 Project Address: Eddy County,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) 632174. 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. 632174 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,

Jession Vermer

Jessica Kramer Project Assistant

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	Id
--------	----

AH-1 (0-6")
AH-2 (0-6")
AH-3 (0-1')
AH-4 (0-1')
AH-4 (1'-1.5')
AH-4 (1.5'-2')
AH-5 (0-1')
AH-5 (1'-1.5')
AH-2 (2'-2.5')
AH-6 (0-1')
AH-7 (0-6")
AH-8 (0-6")
AH-9 (0-6")
AH-10 (0-6")
AH-11 (0-6")
AH-12 (0-6")
AH-13 (0-6")
AH-14 (0-6")

Sample Cross Reference 632174



Pappy's Preference Federal #1

Date Collected	Sample Depth	Lab Sample Id
07-25-19 00:00		632174-001
07-25-19 00:00		632174-002
07-25-19 00:00		632174-003
07-25-19 00:00		632174-004
07-25-19 00:00		632174-005
07-25-19 00:00		632174-006
07-25-19 00:00		632174-007
07-25-19 00:00		632174-008
07-25-19 00:00		632174-009
07-25-19 00:00		632174-010
07-25-19 00:00		632174-011
07-25-19 00:00		632174-012
07-25-19 00:00		632174-013
07-25-19 00:00		632174-014
07-25-19 00:00		632174-015
07-25-19 00:00		632174-016
07-25-19 00:00		632174-017
07-25-19 00:00		632174-018
	Date Collected 07-25-19 00:00 07-25-19 00:00	Date CollectedSample Depth $07-25-19 \ 00:00$





CASE NARRATIVE

Client Name: Tetra Tech- Midland Project Name: Pappy's Preference Federal #1

Project ID: 212C-MD-01855 Work Order Number(s): 632174 Report Date: 29-JUL-19 Date Received: 07/26/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3096731 TPH by SW8015 Mod Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682996-1-BLK,632174-010,632174-011,632174-012,632174-018,632174-006,632174-008. Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected. Samples affected are: 632174-004.

Batch: LBA-3096779 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 632174-013.

Lab Sample ID 632174-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 632174-001, -002, - 003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018. The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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



Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy County,NM

Certificate of Analysis Summary 632174

Tetra Tech- Midland, Midland, TX Project Name: Pappy's Preference Federal #1



Date Received in Lab:Fri Jul-26-19 10:20 amReport Date:29-JUL-19Project Manager:Jessica Kramer

	Lab Id:	632174-0	001	632174-0	002	632174-	003	632174-	004	632174-	005	632174-0	006
Analysis Paguested	Field Id:	AH-1 (0-	6")	AH-2 (0-	·6")	AH-3 (0	-1')	AH-4 (0	-1')	AH-4 (1'-	1.5')	AH-4 (1.5'-2')	
Analysis Kequestea	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-25-19 (00:00	Jul-25-19 (00:00	Jul-25-19	00:00	Jul-25-19	00:00	Jul-25-19	00:00	Jul-25-19	00:00
BTEX by EPA 8021B	Extracted:	Jul-26-19	11:33	Jul-26-19 1	11:33	Jul-26-19	11:33	Jul-26-19	11:33	Jul-26-19	11:33	Jul-26-19	11:33
	Analyzed:	Jul-27-192	21:48	Jul-27-19 2	22:08	Jul-27-19	22:28	Jul-27-19	22:48	Jul-27-19	23:08	Jul-27-19	23:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Toluene		< 0.00200	0.00200	<0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Ethylbenzene		< 0.00200	0.00200	<0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
m,p-Xylenes		< 0.00401	0.00401	<0.00397	0.00397	< 0.00403	0.00403	< 0.00401	0.00401	< 0.00401	0.00401	< 0.00402	0.00402
o-Xylene		< 0.00200	0.00200	<0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Total Xylenes		< 0.00200	0.00200	<0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Total BTEX		< 0.00200	0.00200	<0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201
Chloride by EPA 300	Extracted:	Jul-27-19	12:30	Jul-27-19 1	12:30	Jul-27-19 12:30 Jul-27-19		ul-27-19 12:30 Jul-27-19 12:30		12:30	Jul-27-19 12:30		
	Analyzed:	Jul-27-19	17:43	Jul-27-19 1	18:04	Jul-27-19 18:10		Jul-27-19 18:26		Jul-27-19	18:32	Jul-27-19 18:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		20700	100	13300	100	15600	101	14400	99.6	9810	50.5	8450	49.7
TPH by SW8015 Mod	Extracted:	Jul-27-19 (09:00	Jul-27-19 (09:00	Jul-27-19	09:00	Jul-27-19	09:00	Jul-27-19	09:00	Jul-27-19 (09:00
	Analyzed:	Jul-27-192	22:43	Jul-27-19 2	23:54	Jul-28-19	00:17	Jul-28-19	00:41	Jul-28-19	01:05	Jul-28-19 (01:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		36.7	15.0	22.8	15.0	<14.9	14.9	27.6	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		36.7	15.0	22.8	15.0	<14.9	14.9	27.6	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

fession kramer

Jessica Kramer Project Assistant

Final 1.000



Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy County,NM

Certificate of Analysis Summary 632174

Tetra Tech- Midland, Midland, TX Project Name: Pappy's Preference Federal #1



Date Received in Lab:Fri Jul-26-19 10:20 amReport Date:29-JUL-19Project Manager:Jessica Kramer

	Lab Id:	632174-0	007	632174-0	008	632174-	009	632174-	010	632174-0	011	632174-	012
Analysis Paguastad	Field Id:	AH-5 (0-	-1')	AH-5 (1'-	1.5')	AH-2 (2'-	2.5')	AH-6 (0	-1')	AH-7 (0-	-6")	AH-8 (0-	-6")
Analysis Kequestea	Depth:												
	Matrix:	SOIL	,	SOIL		SOIL		SOIL	,	SOIL		SOIL	
	Sampled:	Jul-25-19 (Jul-25-19 00:00		00:00	Jul-25-19	00:00	Jul-25-19	00:00	Jul-25-19 00:00		Jul-25-19 00:00	
BTEX by EPA 8021B	Extracted:	Jul-26-19	11:33	Jul-26-19 1	1:33	Jul-26-19 11:33		Jul-26-19	11:33	Jul-26-19 11:33		Jul-26-19 11:33	
	Analyzed:	Jul-27-192	23:49	Jul-28-19 (00:09	Jul-28-19	00:29	Jul-28-19	00:49	Jul-28-19 (02:07	Jul-28-19	02:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00201	0.00201	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	0.00345	0.00198	< 0.00202	0.00202
Toluene		< 0.00201	0.00201	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202
Ethylbenzene		< 0.00201	0.00201	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202
m,p-Xylenes		< 0.00402	0.00402	< 0.00396	0.00396	< 0.00404	0.00404	< 0.00400	0.00400	0.00842	0.00396	< 0.00404	0.00404
o-Xylene		< 0.00201	0.00201	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202
Total Xylenes		< 0.00201	0.00201	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	0.00842	0.00198	< 0.00202	0.00202
Total BTEX		< 0.00201	0.00201	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	0.0119	0.00198	< 0.00202	0.00202
Chloride by EPA 300	Extracted:	Jul-27-19	12:30	Jul-27-19 12:30		Jul-27-19 12:30 Ju		Jul-27-19 12:30		Jul-27-19 14:00		Jul-27-19 14:00	
	Analyzed:	Jul-27-19	18:42	Jul-27-19 1	8:48	Jul-27-19 18:53		Jul-27-19 18:59		Jul-27-19	19:13	Jul-27-19 19:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11300	49.9	5000	25.1	1250	25.3	9240	49.7	15700	100	14000	99.8
TPH by SW8015 Mod	Extracted:	Jul-27-19 (09:00	Jul-27-19 (09:00	Jul-27-19	09:00	Jul-27-19	09:00	Jul-27-19 (09:00	Jul-27-19	09:00
	Analyzed:	Jul-28-19 (01:51	Jul-28-19 (02:15	Jul-28-19	02:38	Jul-28-19	03:02	Jul-28-19 (03:49	Jul-28-19	04:12
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	18.9	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	50.5	15.0	29.9	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	69.4	15.0	29.9	15.0

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

Version: 1.%

fession kramer

Jessica Kramer Project Assistant

Page 6 of 24



Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy County,NM

Certificate of Analysis Summary 632174

Tetra Tech- Midland, Midland, TX Project Name: Pappy's Preference Federal #1



Date Received in Lab:Fri Jul-26-19 10:20 amReport Date:29-JUL-19Project Manager:Jessica Kramer

	Lab Id:	632174-	013	632174-0	014	632174-	015	632174-	016	632174-0	017	632174-0	018
Analysis Paguastad	Field Id:	AH-9 (0	-6")	AH-10 (0	-6")	AH-11 (()-6")	AH-12 (0	9-6")	AH-13 (0	-6")	AH-14 (0	-6")
Analysis Kequestea	Depth:												
	Matrix:	SOII		SOIL		SOIL		SOIL	,	SOIL		SOIL	,
	Sampled:	Jul-25-19	00:00	Jul-25-19	00:00	Jul-25-19	00:00	Jul-25-19	00:00	Jul-25-19 (00:00	Jul-25-19	00:00
BTEX by EPA 8021B	Extracted:	Jul-26-19	11:33	Jul-26-19	Jul-26-19 11:33 Jul-26-19 11:33		Jul-26-19	11:33	Jul-26-19 11:33		Jul-26-19 11:33		
	Analyzed:	Jul-28-19	05:09	Jul-28-19 (02:48	Jul-28-19	04:49	Jul-28-19	03:08	Jul-28-19 (03:28	Jul-28-19 (03:48
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.0200	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00200	0.00200
Toluene		0.00522	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00200	0.00200
Ethylbenzene		0.0446	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00200	0.00200
m,p-Xylenes		0.133	0.00396	< 0.00402	0.00402	< 0.00400	0.00400	< 0.00403	0.00403	< 0.00403	0.00403	< 0.00399	0.00399
o-Xylene		0.0205	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00200	0.00200
Total Xylenes		0.154	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00200	0.00200
Total BTEX		0.223	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00200	0.00200
Chloride by EPA 300	Extracted:	Jul-27-19	14:00	Jul-27-19	14:00	Jul-27-19 14:00		Jul-27-19 14:00		Jul-27-19 14:00		Jul-27-19 14:00	
	Analyzed:	Jul-27-19	19:23	Jul-27-19	19:29	Jul-27-19 19:45		Jul-27-19 19:50		Jul-27-19	19:55	Jul-27-19 18:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		15400	101	12600	99.2	13700	99.8	13300	100	17200	100	12.5	4.98
TPH by SW8015 Mod	Extracted:	Jul-27-19	09:00	Jul-27-19 (09:00	Jul-27-19	09:00	Jul-27-19	09:00	Jul-27-19 ()9:00	Jul-27-19 (09:00
	Analyzed:	Jul-28-19	04:36	Jul-28-19 ()4:59	Jul-28-19	05:23	Jul-28-19	05:46	Jul-28-19 (06:10	Jul-28-19 (06:33
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		147	15.0	<15.0	15.0	38.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		523	15.0	37.8	15.0	903	15.0	170	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		49.4	15.0	<15.0	15.0	76.7	15.0	26.2	15.0	<15.0	15.0	<15.0	15.0
Total TPH		719	15.0	37.8	15.0	1020	15.0	196	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

fession kramer

Jessica Kramer Project Assistant

Page 7 of 24



Flagging Criteria



Page 44 of 220

- 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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clier	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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



Work O Lab Batch	erders : 63217 h #: 3096779	4, Sample: 632174-001 / SMP	Project ID: 212C-MD-01855 Batch: 1 Matrix: Soil									
Units:	mg/kg	Date Analyzed: 07/27/19 21:48	SUI	RROGATE RI	ECOVERY	STUDY						
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
		Analytes			[D]							
1,4-Difluor	robenzene		0.0320	0.0300	107	70-130						
4-Bromoflu	uorobenzene		0.0310	0.0300	103	70-130						
Lab Batch	h #: 3096779	Sample: 632174-002 / SMP	IP Batch: 1 Matrix: Soil									
Units:	mg/kg	Date Analyzed: 07/27/19 22:08	SUI	RROGATE RI	ECOVERYS	STUDY						
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluor	robenzene		0.0325	0.0300	108	70-130						
4-Bromoflu	uorobenzene		0.0349	0.0300	116	70-130						
Lab Batch	h #: 3096779	Sample: 632174-003 / SMP	Batch	: 1 Matrix:	Soil	1						
Units:	mg/kg	Date Analyzed: 07/27/19 22:28	SURROGATE RECOVERY STUDY									
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluor	robenzene		0.0314	0.0300	105	70-130						
4-Bromoflu	uorobenzene		0.0329	0.0300	110	70-130						
Lab Batch	h#: 3096731	Sample: 632174-001 / SMP	Batch	: 1 Matrix:	Soil	1						
Units:	mg/kg	Date Analyzed: 07/27/19 22:43	SUI	RROGATE RI	ECOVERY	STUDY						
	TPH	oy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chlorooc	ctane	Anarytes	79.9	00.0	80	70-135						
o-Ternhen	vl		36.6	50.0	73	70-135						
Lab Batch	h #• 3096779	Sample: 632174-004 / SMP	Batch	• 1 Matrix:	Soil	70-135						
Units:	mg/kg	Date Analyzed: 07/27/19 22:48	SUI	ROGATE RI	ECOVERY S	STUDY						
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluor	robenzene		0.0314	0.0300	105	70-130						
4-Bromoflu	uorobenzene		0.0320	0.0300	107	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



Work O Lab Batch	orders : 63217 h #: 3096779	4, Sample: 632174-005 / SMP	Project ID:212C-MD-01855Batch:1Matrix:Soil								
Units:	mg/kg	Date Analyzed: 07/27/19 23:08	SUI	RROGATE RI	ECOVERY	STUDY					
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]						
1,4-Difluor	robenzene		0.0307	0.0300	102	70-130					
4-Bromoflu	uorobenzene		0.0318	0.0300	106	70-130					
Lab Batch	h #: 3096779	Sample: 632174-006 / SMP	Batch	: 1 Matrix:	Soil						
Units:	mg/kg	Date Analyzed: 07/27/19 23:28	SUI	RROGATE RI	ECOVERYS	STUDY					
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluor	robenzene		0.0321	0.0300	107	70-130					
4-Bromoflu	uorobenzene		0.0357	0.0300	119	70-130					
Lab Batch	h #: 3096779	Sample: 632174-007 / SMP	Batch	: 1 Matrix:	Soil	<u> </u>					
Units:	mg/kg	Date Analyzed: 07/27/19 23:49	SUI	RROGATE RI	ECOVERY	STUDY					
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluor	robenzene		0.0307	0.0300	102	70-130					
4-Bromoflu	uorobenzene		0.0322	0.0300	107	70-130					
Lab Batch	h#: 3096731	Sample: 632174-002 / SMP	Batch	: 1 Matrix:	Soil	<u> </u>					
Units:	mg/kg	Date Analyzed: 07/27/19 23:54	SUI	RROGATE RI	ECOVERYS	STUDY					
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[U]		L				
1-Chlorooc	ctane		79.2	99.9	79	70-135	<u> </u>				
o-Terpheny	yl		35.1	50.0	70	70-135	<u> </u>				
Lab Batch	h #: 3096779	Sample: 632174-008 / SMP	Batch	: 1 Matrix:	Soil						
Units:	mg/kg	Date Analyzed: 07/28/19 00:09	SUI	RROGATE RI	ECOVERY	STUDY					
	втех	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluor	robenzene	<u>ب</u>	0.0308	0.0300	103	70-130					
4-Bromoflu	uorobenzene		0.0320	0.0300	107	70-130					
L					1	<u> </u>					

* 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



Work Or Lab Batch	r ders : 63217 #: 3096731	4, Sample: 632174-003 / SMP	Project ID:212C-MD-01855Batch:1Matrix:Soil								
Units:	mg/kg	Date Analyzed: 07/28/19 00:17	SUI	RROGATE RI	ECOVERY S	STUDY					
	TPH	oy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]						
1-Chlorooct	ane		79.7	99.6	80	70-135					
o-Terphenyl	1		35.9	49.8	72	70-135					
Lab Batch	#: 3096779	Sample: 632174-009 / SMP	Batch	: 1 Matrix:	Soil		· · · · · ·				
Units:	mg/kg	Date Analyzed: 07/28/19 00:29	SUI	RROGATE RI	ECOVERY	STUDY					
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluoro	obenzene		0.0310	0.0300	103	70-130					
4-Bromoflue	orobenzene		0.0335	0.0300	112	70-130					
Lab Batch	#: 3096731	Sample: 632174-004 / SMP	Batch	: 1 Matrix:	Soil						
Units:	mg/kg	Date Analyzed: 07/28/19 00:41	SUI	RROGATE RI	ECOVERY	STUDY					
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooct	ane		172	99.7	173	70-135	**				
o-Terphenyl	1		63.1	49.9	126	70-135					
Lab Batch	#: 3096779	Sample: 632174-010 / SMP	Batch	: 1 Matrix:	Soil						
Units:	mg/kg	Date Analyzed: 07/28/19 00:49	SUI	RROGATE RI	ECOVERYS	STUDY					
	ВТЕХ	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			נען						
1,4-Difluoro	obenzene		0.0308	0.0300	103	70-130					
4-Bromoflue	orobenzene		0.0324	0.0300	108	70-130					
Lab Batch	#: 3096731	Sample: 632174-005 / SMP	Batch	: 1 Matrix:	Soil						
Units:	mg/kg	Date Analyzed: 07/28/19 01:05	SUI	RROGATE RI	ECOVERY S	STUDY					
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooct	ane		84.1	99.9	84	70-135					
o-Terphenyl	1		35.1	50.0	70	70-135					

* Surrogate outside of Laboratory QC limits

Released to Imaging: 3/15/2022 9:42:49 AM

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Form 2 - Surrogate Recoveries

Work Orders :	632174	,		Project ID:	: 212C-MD-0)1855	
Lab Batch #: 3090	6731	Sample: 632174-006 / SMP	Batel	h: 1 Matrix	: Soil		
Units: mg/l	kg	Date Analyzed: 07/28/19 01:28	SU	RROGATE R	ECOVERY	STUDY	
	TPH b	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooctane			79.7	99.8	80	70-135	
o-Terphenyl			33.7	49.9	68	70-135	**
Lab Batch #: 309	6731	Sample: 632174-007 / SMP	Batcl	h: 1 Matrix	: Soil		
Units: mg/l	kg	Date Analyzed: 07/28/19 01:51	SU	RROGATE R	ECOVERY	STUDY	
	TPH b	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[U]		
1-Chlorooctane			79.8	100	80	70-135	
o-Terphenyl			35.7	50.0	71	70-135	
Lab Batch #: 309	6779	Sample: 632174-011 / SMP	Batcl	h: 1 Matrix	: Soil		
Units: mg/l	kg	Date Analyzed: 07/28/19 02:07	SU	RROGATE R	ECOVERY	STUDY	
	BTEX	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluorobenzene	:		0.0338	0.0300	113	70-130	
4-Bromofluorobenze	ene		0.0337	0.0300	112	70-130	
Lab Batch #: 309	6731	Sample: 632174-008 / SMP	Batc	h: 1 Matrix	Soil		
Units: mg/l	kg	Date Analyzed: 07/28/19 02:15	SU	RROGATE R	ECOVERY	STUDY	
	TPH b	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooctane			80.3	99.9	80	70-135	
TT 1 1			20.0				ale ale

Lab Bate Date Analyzed: 07/28/19 02:28 Units: mg/kg

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1111119 000					
1,4-Difluorobenzene	0.0310	0.0300	103	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	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.

Page 48 of 220



Work Or Lab Batch	r ders : 632174 #: 3096731	4, Sample: 632174-009 / SMP	Batch	Project ID: 1 Matrix:	212C-MD-0 Soil)1855	
Units:	mg/kg	Date Analyzed: 07/28/19 02:38	SUF	RROGATE RI	ECOVERY S	STUDY	
	TPH	oy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooct	tane		80.3	99.7	81	70-135	
o-Terpheny	1		35.7	49.9	72	70-135	
Lab Batch	#: 3096779	Sample: 632174-014 / SMP	Batch	: 1 Matrix:	Soil	<u>.</u>	
Units:	mg/kg	Date Analyzed: 07/28/19 02:48	SUF	RROGATE RI	ECOVERY S	STUDY	
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene	-	0.0316	0.0300	105	70-130	
4-Bromoflu	orobenzene		0.0326	0.0300	109	70-130	
Lab Batch	#: 3096731	Sample: 632174-010 / SMP	Batch	: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 03:02	SUF	RROGATE RI	ECOVERY S	STUDY	
	TPH	oy SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		81.4	100	81	70-135	
o-Terpheny	1		33.4	50.0	67	70-135	**
Lab Batch	#: 3096779	Sample: 632174-016 / SMP	Batch	: 1 Matrix:	Soil	I	
Units:	mg/kg	Date Analyzed: 07/28/19 03:08	SUF	RROGATE RI	ECOVERY S	STUDY	
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluoro	obenzene		0.0311	0.0300	104	70-130	
4-Bromoflu	orobenzene		0.0345	0.0300	115	70-130	
Lab Batch	#: 3096779	Sample: 632174-017 / SMP	Batch	: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 03:28	SUF	RROGATE RI	ECOVERY S	STUDY	
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene	J	0.0316	0.0300	105	70-130	
4-Bromoflu	orobenzene		0.0357	0.0300	119	70-130	
					1	1	

* Surrogate outside of Laboratory QC limits

Released to Imaging: 3/15/2022 9:42:49 AM

** 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.

Page 49 of 220



Work Or Lab Batch	rders : 63217 #: 3096779	4, Sample: 632174-018 / SMP	Batch	Project ID: 1 Matrix:	212C-MD-0 Soil)1855	
Units:	mg/kg	Date Analyzed: 07/28/19 03:48	SUI	RROGATE RI	ECOVERY	STUDY	
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0307	0.0300	102	70-130	
4-Bromoflu	orobenzene		0.0327	0.0300	109	70-130	
Lab Batch	#: 3096731	Sample: 632174-011 / SMP	Batch	: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 03:49	SUI	RROGATE RI	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane		74.3	99.9	74	70-135	
o-Terpheny	rl		32.5	50.0	65	70-135	**
Lab Batch	#: 3096731	Sample: 632174-012 / SMP	Batch	: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 04:12	SUI	RROGATE RI	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane	-	80.4	99.8	81	70-135	
o-Terpheny	71		33.1	49.9	66	70-135	**
Lab Batch	#: 3096731	Sample: 632174-013 / SMP	Batch	: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 04:36	SUI	RROGATE RI	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			נטן		
1-Chlorooc	tane		77.2	99.9	77	70-135	
o-Terpheny	n		39.9	50.0	80	70-135	
Lab Batch	#: 3096779	Sample: 632174-015 / SMP	Batch	: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 04:49	SUI	RROGATE RI	ECOVERY	STUDY	
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluor	obenzene		0.0300	0.0300	100	70-130	
4-Bromoflu	iorobenzene		0.0364	0.0300	121	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



Work O Lab Batch	rders : 632174 #: 3096731	4, Sample: 632174-014 / SMP	Batcl	Project ID n: 1 Matrix	: 212C-MD-(: Soil)1855	
Units:	mg/kg	Date Analyzed: 07/28/19 04:59	SU	RROGATE R	ECOVERY	STUDY	
	TPH t	oy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane	Anarytes	76.3	100	76	70.125	
o-Terpheny			25.0	50.0	70	70-135	
Lab Batch	#• 3096779	Sample: 632174-013 / SMP	Batcl	<u> </u>	· Soil	70-135	
Lab Daten Unite	mg/kg	Date Analyzed: 07/28/19 05:09					
Units.	iiig/ kg	Date Analyzed. 07/20/19 05:09	50	RROGATE R	ECOVERY	STUDY	
	BTEX	A polytos	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4 D'flare a		Analytes	0.0252	0.0200	117	70.100	
1,4-Diffuor	obenzene		0.0352	0.0300	117	70-130	
4-Bromoflu	lorobenzene	G 1 (20174.015 / 010	0.0493	0.0300	164	70-130	**
Lab Batch	#: 3096731	Sample: 632174-015 / SMP	Batch	n: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 05:23	SU	RROGATE R	ECOVERY	STUDY	
	TPH k	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			נען		
1-Chlorooc	etane		77.8	99.9	78	70-135	
o-Terpheny	/1		43.5	50.0	87	70-135	
Lab Batch	#: 3096731	Sample: 632174-016 / SMP	Batcl	n: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 05:46	SU	RROGATE R	ECOVERY	STUDY	
	TPH b	oy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooc	etane		75.4	99.7	76	70-135	
o-Terpheny	/1		36.3	49.9	73	70-135	
Lab Batch	#: 3096731	Sample: 632174-017 / SMP	Batcl	n: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 07/28/19 06:10	SU	RROGATE R	ECOVERY	STUDY	
	TPH b	oy SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags

72.4

39.2

99.9

50.0

* 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.

1-Chlorooctane

o-Terphenyl

72

78

70-135

70-135



Work Or	rders: 63217	4, Sompley 632174 018 / SMI) Dotal	Project ID:	212C-MD-0)1855	
Lab Datch	mg/kg	Date Analyzed: 07/28/19 06:33	- Batci				
Units.	mg/kg	Date Analyzeu. 07/28/19 00.55	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes					
1-Chlorooc	tane		71.9	100	72	70-135	
o-Terpheny	n		31.6	50.0	63	70-135	**
Lab Batch	#: 3096779	Sample: 7682924-1-BLK /	BLK Batch	n: 1 Matrix:	: Solid		
Units:	mg/kg	Date Analyzed: 07/27/19 21:28	SU	RROGATE R	ECOVERY S	STUDY	
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene	-	0.0317	0.0300	106	70-130	
4-Bromoflu	iorobenzene		0.0313	0.0300	104	70-130	
Lab Batch	#: 3096731	Sample: 7682996-1-BLK /	BLK Batch	n: 1 Matrix:	Solid		
Units:	mg/kg	Date Analyzed: 07/27/19 21:32	SU	RROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooc	tane		76.8	100	77	70-135	
o-Terpheny	1		33.8	50.0	68	70-135	**
Lab Batch	#: 3096779	Sample: 7682924-1-BKS /	BKS Batch	n: 1 Matrix:	: Solid		
Units:	mg/kg	Date Analyzed: 07/27/19 19:48	SU	RROGATE R	ECOVERY S	STUDY	
	BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0306	0.0300	102	70-130	
4-Bromoflu	orobenzene		0.0300	0.0300	100	70-130	
Lab Batch	#: 3096731	Sample: 7682996-1-BKS /	BKS Batch	n: 1 Matrix:	Solid		
Units:	mg/kg	Date Analyzed: 07/27/19 21:56	SU	RROGATE R	ECOVERY S	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooc	tane		82.7	100	83	70-135	
o-Ternhenv	/]		39.4	50.0	79	70-135	
	-		57.7	50.0		10155	

* Surrogate outside of Laboratory QC limits

Released to Imaging: 3/15/2022 9:42:49 AM

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Pappy's Preference Federal #1

Work Or	rders: 63217	14, Somelar 7682024 1 BSD / 1		Project ID:	212C-MD-0)1855	
Lab Datch	#: 3090779	Dete Applyzed: 07/27/10 20:08	BSD Batch				
	mg/kg	Date Analyzed: 07/27/19/20:08	SU	RROGATE RI	ECOVERYS	STUDY	
	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0309	0.0300	103	70-130	
4-Bromoflu	orobenzene		0.0305	0.0300	102	70-130	
Lab Batch	#: 3096731	Sample: 7682996-1-BSD / 1	BSD Batcl	h: 1 Matrix:	Solid	11	
Units:	mg/kg	Date Analyzed: 07/27/19 22:20	SU	RROGATE RI	ECOVERY	STUDY	
	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		75.5	100	76	70-135	
o-Terpheny	1		38.3	50.0	77	70-135	
Lab Batch	#: 3096779	Sample: 632174-001 S / MS	S Batel	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/27/19 20:28	SU	RROGATE RI	ECOVERY	STUDY	
	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0312	0.0300	104	70-130	
4-Bromoflu	orobenzene		0.0320	0.0300	107	70-130	
Lab Batch	#: 3096731	Sample: 632174-001 S / MS	S Batcl	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/27/19 23:07	SU	RROGATE RI	ECOVERY S	STUDY	
	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		75.6	99.8	76	70-135	
o-Terpheny	1		38.9	49.9	78	70-135	
Lab Batch	#: 3096779	Sample: 632174-001 SD / N	ASD Batch	h: 1 Matrix:	Soil		
Units:	mg/kg	Date Analyzed: 07/27/19 20:48	SU	RROGATE RI	ECOVERY S	STUDY	
	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0315	0.0300	105	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



Form 2 - Surrogate Recoveries

Page	54	of	220
------	----	----	-----

Work Orders : 632174 Lab Batch #: 3096731	Sample: 632174-001 SD / N	MSD Batch	Project ID: n: 1 Matrix:	212C-MD-0 Soil	01855	
Units: mg/kg	Date Analyzed: 07/27/19 23:30	SU	RROGATE RH	ECOVERY S	STUDY	
TPH by	y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		80.7	99.7	81	70-135	
o-Terphenyl		39.7	49.9	80	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



BS / BSD Recoveries



Project Name: Pappy's Preference Federal #1

Work Orde	r #: 632174							Pro	ject ID: 🖇	212C-MD-0)1855	
Analyst:	FOV	D	ate Prepar	red: 07/26/20	19			Date A	nalyzed: (07/27/2019		
Lab Batch ID	Sample: 7682924	-1-BKS	Batcl	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K/BLANK	SPIKE /]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	ЭY	
	BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Anal	ytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Benzene		< 0.000385	0.100	0.103	103	0.100	0.0994	99	4	70-130	35	
Toluene		< 0.000456	0.100	0.0909	91	0.100	0.0880	88	3	70-130	35	
Ethylben	zene	< 0.00200	0.100	0.0889	89	0.100	0.0855	86	4	70-130	35	
m,p-Xyle	enes	< 0.00101	0.200	0.176	88	0.200	0.170	85	3	70-130	35	
o-Xylene	:	< 0.000344	0.100	0.0931	93	0.100	0.0914	91	2	70-130	35	
Analyst:	SPC	D	ate Prepar	ed: 07/27/20	19			Date A	nalyzed: ()7/27/2019	+	
Lab Batch ID	Sample: 7682945	-1-BKS	Batcl	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K/BLANK	SPIKE / 1	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	ЭY	
Anal	Chloride by EPA 300 ytes	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
Chloride	-	<5.00	250	266	106	250	265	106	0	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

Version: 1.%



BS / BSD Recoveries



Project Name: Pappy's Preference Federal #1

Work Order	r #: 632174								Proj	ject ID: 2	212C-MD-()1855	
Analyst:	SPC		Da	ate Prepar	ed: 07/27/201	9			Date A	nalyzed: (07/27/2019		
Lab Batch ID	San San	nple: 7682948-1-BK	KS	Batcl	n #: 1					Matrix: S	Solid		
Units:	mg/kg			BLAN	K/BLANK	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOVI	ERY STUE	DY	
	Chloride by EPA 30	0 Sa	Blank ample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analy	ytes		0.050		[0]						00.110		
Chloride			<0.858	250	263	105	250	260	104	1	90-110	20	
						-							
Analyst:	ARM		Da	ate Prepar	ed: 07/27/201	9			Date A	nalyzed: ()7/27/2019	·	
Analyst: Lab Batch ID	ARM e: 3096731 San	nple: 7682996-1-BK	Da KS	ate Prepar Batcl	ed: 07/27/201 h #: 1	9			Date A	nalyzed: (Matrix: S)7/27/2019 Solid		
Analyst: Lab Batch ID Units:	ARM 9: 3096731 San mg/kg	nple: 7682996-1-BK	Da KS	ate Prepar Batcl BLAN	ed: 07/27/201 h #: 1 K /BLANK \$	9 SPIKE / 1	BLANK S	SPIKE DUP	Date A	nalyzed: (Matrix: S RECOVI	07/27/2019 Solid E RY STUI	DY	
Analyst: Lab Batch ID Units: Analy	ARM 9: 3096731 San mg/kg TPH by SW8015 Mo ytes	nple: 7682996-1-BK	Da KS Blank ample Result [A]	ate Prepar Batcl BLAN Spike Added [B]	ed: 07/27/201 h #: 1 K /BLANK S Blank Spike Result [C]	9 SPIKE / I Blank Spike %R [D]	BLANK S Spike Added [E]	SPIKE DUP Blank Spike Duplicate Result [F]	Date A LICATE Blk. Spk Dup. %R [G]	nalyzed: (Matrix: S RECOVI RPD %	07/27/2019 Solid ERY STUE Control Limits %R	DY Control Limits %RPD	Flag
Analyst: Lab Batch ID Units: Analy Gasoline	ARM 3096731 San mg/kg TPH by SW8015 Mo ytes Range Hydrocarbons (GRO)	nple: 7682996-1-BK	Da KS Blank ample Result [A] <8.00	ate Prepar Batcl BLAN Spike Added [B] 1000	ed: 07/27/201 h #: 1 K /BLANK S Blank Spike Result [C] 1010	SPIKE / I Blank Spike %R [D] 101	BLANK S Spike Added [E] 1000	Blank Spike Duplicate Result [F] 875	Date A LICATE Blk. Spk Dup. %R [G] 88	nalyzed: (Matrix: S RECOVI RPD % 14	o7/27/2019 Solid ERY STUE Control Limits %R 70-135	DY Control Limits %RPD 20	Flag

Relative Percent Difference RPD = $200^{\circ}|(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100^{\circ}(C)/[B]$ Blank Spike Duplicate Recovery [G] = $100^{\circ}(F)/[E]$ All results are based on MDL and Validated for QC Purposes

Version: 1.%



Form 3 - MS / MSD Recoveries



Project Name: Pappy's Preference Federal #1

Work Order # : 632174						Project II): 212C-N	MD-01855	5		
Lab Batch ID: 3096779	QC- Sample ID:	632174	-001 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed: 07/27/2019	Date Prepared:	07/26/2	019	An	alyst: F	FOV					
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	1-1	[D]	[E]		[G]		,		
Benzene	<0.000386	0.100	0.0925	93	0.101	0.0780	77	17	70-130	35	
Toluene	0.000661	0.100	0.0822	82	0.101	0.0649	64	24	70-130	35	X
Ethylbenzene	< 0.00201	0.100	0.0780	78	0.101	0.0578	57	30	70-130	35	X
m,p-Xylenes	< 0.00102	0.201	0.163	81	0.202	0.116	57	34	70-130	35	X
o-Xylene	<0.000346	0.100	0.0864	86	0.101	0.0611	60	34	70-130	35	X
Lab Batch ID: 3096746	QC- Sample ID:	631951	-033 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed: 07/27/2019	Date Prepared:	07/27/2	019	An	alyst: S	SPC					
Date Analyzed:07/27/2019Reporting Units:mg/kg	Date Prepared:	07/27/2 M	019 I ATRIX SPIK	An E / MAT	alyst: S RIX SPI	SPC KE DUPLICA	TE REC	OVERY S	STUDY		
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300	Date Prepared: Parent Sample	07/27/2 M Spike	019 ATRIX SPIK Spiked Sample Result	An E / MAT Spiked Sample	alyst: S RIX SPI	SPC KE DUPLICA Duplicate Spiked Sample	TE REC	OVERY S	STUDY Control Limits	Control Limits	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes	Date Prepared: Parent Sample Result [A]	07/27/2 M Spike Added [B]	019 [ATRIX SPIK] Spiked Sample Result [C]	An E / MAT Spiked Sample %R [D]	alyst: S RIX SPI Spike Added [E]	SPC KE DUPLICA Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G]	OVERY S RPD %	STUDY Control Limits %R	Control Limits %RPD	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Chloride	Date Prepared: Parent Sample Result [A] 4.89	07/27/2 M Spike Added [B] 249	019 IATRIX SPIK Spiked Sample Result [C] 271	An E / MAT Spiked Sample %R [D] 107	alyst: S RIX SPI Spike Added [E] 249	SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272	TE REC Spiked Dup. %R [G] 107	OVERY S RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD 20	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3096746	Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID:	07/27/2 M Spike Added [B] 249 631951	019 ATRIX SPIK Spiked Sample Result [C] 271 -040 S	An E / MAT Spiked Sample %R [D] 107 Ba	RIX SPI Spike Added [E] 249 tch #:	SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272 1 Matrix	TE RECO Spiked Dup. %R [G] 107 x: Soil	OVERY S RPD %	Control Limits %R 90-110	Control Limits %RPD	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3096746 Date Analyzed: 07/27/2019	Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared:	07/27/2 M Spike Added [B] 249 631951 07/27/2	019 IATRIX SPIK Spiked Sample Result [C] 271 -040 S 019	An E / MAT Spiked Sample %R [D] 107 Ba An	RIX SPI Spike Added [E] 249 tch #: alyst: S	SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272 1 Matrix SPC	TE RECO Spiked Dup. %R [G] 107 k: Soil	OVERY S RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD 20	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Chloride 2000 Lab Batch ID: 3096746 Date Analyzed: 07/27/2019 Reporting Units: mg/kg	Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared:	07/27/2 M Spike Added [B] 249 631951 07/27/2 M	019 [ATRIX SPIK] Spiked Sample Result [C] 271 -040 S 019 [ATRIX SPIK]	An E / MAT Spiked Sample %R [D] 107 Ba An E / MAT	Alyst: S RIX SPI Spike Added [E] 249 tch #: alyst: S RIX SPI	SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272 1 Matrix SPC KE DUPLICA	TE RECO Spiked Dup. %R [G] 107 x: Soil TE RECO	OVERY S RPD % 0	Control Limits %R 90-110	Control Limits %RPD 20	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3096746 Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Analytes	Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared: Parent Sample Result Sample Result	07/27/2 M Spike Added [B] 249 631951 07/27/2 M Spike Added	019 IATRIX SPIK Spiked Sample Result [C] 271 -040 S 019 IATRIX SPIK Spiked Sample Result [C]	An E / MAT Spiked Sample %R [D] 107 Ba An E / MAT Spiked Sample %R	Alyst: S RIX SPI Spike Added [E] 249 tch #: alyst: S RIX SPI Spike Added	SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272 1 Matrix SPC KE DUPLICA Duplicate Spiked Sample Result [F]	TE RECO Spiked Dup. %R [G] 107 k: Soil TE RECO Spiked Dup. %R	OVERY S RPD 0 OVERY S RPD %	STUDY Control Limits %R 90-110 STUDY Control Limits %R	Control Limits %RPD 20 20 Control Limits %RPD	Flag
Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes Chloride Lab Batch ID: 3096746 Date Analyzed: 07/27/2019 Reporting Units: mg/kg Chloride by EPA 300 Analytes	Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared: Parent Sample Result [A]	07/27/2 M Spike Added [B] 249 631951 07/27/2 M Spike Added [B]	019 [ATRIX SPIK] Spiked Sample Result [C] 271 -040 S 019 [ATRIX SPIK] Spiked Sample Result [C]	An Spiked Sample %R [D] 107 Ba An E / MAT Spiked Sample %R [D]	Adlyst: S RIX SPI Added [E] 249 tch #: alyst: S RIX SPI Spike Added [E]	SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272 1 Matrix SPC KE DUPLICA Duplicate Spiked Sample Result [F]	TE RECO Spiked Dup. %R [G] 107 k: Soil X: Soil TE RECO Spiked Dup. %R [G]	OVERY S RPD % 0 OVERY S RPD %	STUDY Control Limits %R 90-110 STUDY Control Limits %R	Control Limits %RPD 20 Control Limits %RPD	Flag

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.

Page 21 of 24



Form 3 - MS / MSD Recoveries



.

Project Name: Pappy's Preference Federal #1

Work Order # : 632174						Project II): 212C-N	MD-01855	5		
Lab Batch ID: 3096754	QC- Sample ID:	632058	-001 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed: 07/27/2019	Date Prepared:	07/27/2	.019	An	alyst: S	SPC					
Reporting Units: mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERYS	STUDY		
Chloride by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %B	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %B	RPD	Control Limits %B	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	itesuit [1]	[G]	70	JUIX		
Chloride	194	249	454	104	249	454	104	0	90-110	20	
Lab Batch ID: 3096754 (C- Sample ID:	632174	-018 S	Ba	tch #:	1 Matrix	k: Soil	-			
Date Analyzed: 07/27/2019	Date Prepared:	07/27/2	.019	An	alyst: S	SPC					
Reporting Units: mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERYS	STUDY		
Chloride by EPA 300	Parent Sample Bacult	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Kesult [F]	%R [G]	%	%K	%RPD	
Chloride	12.5	249	276	106	249	274	105	1	90-110	20	
Lab Batch ID: 3096731	C- Sample ID:	632174	-001 S	Ba	tch #:	1 Matrix	k: Soil	-	·		
Date Analyzed: 07/27/2019	Date Prepared:	07/27/2	019	An	alyst: A	ARM					
Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERYS	STUDY		
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Gasoline Range Hydrocarbons (GRO)	10.0	998	848	84	997	918	91	8	70-135	20	
Diesel Range Organics (DRO)	36.7	998	930	90	997	992	96	6	70-135	20	

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.

Page 22 of 24

eceived by	OCI	D: 2/21/	/2022	9:08	8:02	AN	1																		Pa	ige 59
		Relinquished by		Relinquished by	Kelinquisned by											(LAB USE)	LAB #		Commente.	Commente:	invoice to:	Project Location: state)	Project Name:	Client Name:	E.	Analysis Re
			*		Ð	AH-6 (0-1')	AH-5 (2'-2.5')	AH-5 (1'-1.5')	AH-5 (0-1')	AH-4 (1.5'-2')	AH-4 (1'-1.5')	AH-4 (0-1')	AH-3 (0-1')	AH-2 (0-6")	AH-1 (0-6")		-	-		itory: Xen	CO	(county, Edd	Рар	co		quest of Chair
		Date: Time:		Date: Time:	Date: Time:												SAMPLE IDENTIFICATION			co Midland Tx	G Ike Tavarez	ly County, NM	py's Preference Federal #1	G	Tetra Tech, Inc.	n of Custody Record
		Received by:		Beceived hv:	Received by:	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	DATE	YEAR: 2019	SAMPLING		Sampler Signature:		Project #:		Site Manager:		
		Da	C.		ک ⁰	×	×	×	×	×	×	×	×	×	×	WATE	R	MATRIX		Mike Ca		212C-N		Mike Carm	901 West Midland Tel (42 Fax (4	
		te: Time:		The IM IC.	te: Time:	×	×	×	×	×	×	×	×	×	×	HOL HNO ₃ ICE None		PRESERVATIVE METHOD		armona-Devin [ID-01855		ona	Wall, Suite 100 ,Texas 79701 22) 682-4559 32) 682-3946	
	0		<u> </u>	E	1000	1 N X	- Z X	 Z	-1 Z X	-1 Z	-1 Z X	-1 Z X	- z X	-1 Z X	1 Z X	# CONT	ED (ERS Y/N)	=X 8260	B						U
	ircle)	v v	ample T) C	AR											TPH TX	(1005	(Ext to	o C35)	-						101
	HAN	ŝ	empera	ſ		$\hat{}$	Â			$\widehat{}$	$\widehat{}$			$\frac{2}{2}$	$\widehat{}$	PAH 80	70C	GHU	- DRU - 1	UHU -	WHO)					-
) DELIV		ture		N N			_		_	<u>. </u>	_	_			Total Me	etals /	Ag As E Ag As	Ba Cd Cr Ba Cd Ci	Pb Se	Hg Hg		$-\dot{c}$			7
	ERED			аг	REM			-	_								olatile	S					e or	Ą		
	EDE															RCI	Sin V	Chathee					v			
	× C	cial R	h Cha	ř. j			:		+		+	-		-	-	GC/MS	Vol. 8 Semi.	3260B	/ 624 270C/62	5			– Ň	is R		
	ъ Т	eport L	rdes A													PCB's 8	082 /	608						EQU		
	racking	_imits o	uthori	ਵ ਰੱ	<u> </u>											PLM (As	bestc	is)		-				EST		Pa
	#	or TRF	zed	X h	ŀ	<u>×</u>	<u>~</u>	\sim	<u>×</u>	\mathbf{x}	× :	×	\rightarrow	×	×	Chloride Chloride	s S	ulfate	TDS				- Z			je
		чр Неі	ť	10 5	Ì	_		4								General	Wate	er Che Belan	mistry (s	see atta	ached I	ist)	_:`	·		
		port			ļ											anon/o	adon	Jaian								<u> </u> _
			Ľ	ノ	.	-	+	+	+			+			+	•••••••••••••										с С
leased to	Imag	ging: 3/	/15/20	22 9	0:42	:49	AM	Γ.	1							Hold			-		Final	1 000				N

220

Received by 0	(CD. 2	Relinquished by			Relinquished by										LAB #			Comments:	Invoice to:	Project Location: state)	Project Name:	Client Name:	(P)	Analysis Re
		/: Date: Time:		N/36/19	L Date: Time:		AH-14 (0-6")	AH-13 (0-6")	AH-12 (0-6")	AH-11 (0-6")	AH-10 (0-6")	AH-9 (0-6")	AH-8 (0-6")	AH-7 (0-6")	SAMPLE IDENTIFICATION			Xenco Midland Tx	COG Ike Tavarez	county, Eddy County, NM	Pappy's Preference Federal #1	COG	Tetra Tech,]	quest of Chain of Custody Record
ORIGINAL CO	i received by.	Received hv:	Heceived by:	M	Received by:		7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	7/25/2019	DATE DATE	SAMPLING		Sampler Signature:		Project #:		Site Manager:	lnc.	
γο		Date, Timo.	Date: Time:	1 Allia 100	Date: Time:		×	X	×	X	×	×	XX	X X	HCL HNO ₃ ICE None	MATRIX METHOD		Mike Carmona-Dev		212C-MD-01855		Mike Carmona	901 West Wall, Suite 100 Midland,Texas 79701 Tel (432) 682-4559 Fax (432) 682-3946	
(Circle)		er v	Sample				1 N X	1 N X	- Z X	- Z X	1 Z X	1 Z X	1 N X	1 N X	# CONTAIN FILTERED (BTEX 8021E TPH TX1005	ERS Y/N)	TEX 8260 to C35)	л D DB					S	U U
HAND DELIVERED			Temperature				×	×	×	×	×	×	×	×	TPH 8015M PAH 8270C Total Metals / TCLP Metals TCLP Volatile TCLP Semi V BCL	(GRC Ag As Ag As s olatile	Ba Cd Ci Ba Cd Ci Ba Cd Ci Ba Cd Ci Ba Cd Ci	ORO - Pb Se r Pb Se	MRO) Hg Hg		(Circle or S	ANAL		1
:DEX UPS Tracking #	pecial Report Limits or	ush Charges Authorize	USH: Same Day 24	STANDARD			×					×			GC/MS Vol. 6 GC/MS Semi. PCB's 8082 / NORM PLM (Asbesto Chloride	3260E Vol. 608 os)	3 / 624 8270C/62	25		······································	pecity Method	YSIS REQUEST		Page
	r TRRP Report	ed	4 hr 48 hr 2 hr)											Chloride S General Wate Anion/Cation	ulfate er Ch Bala	e TDS emistry (nce	see att	ached I	ist)		·		e 2 of
Released to In	naging	z: 3 /	/15/2	2022 9	42:	49 A	1 <i>M</i>							24	Hold				Fin	al 1.00				N

Rec

of 220



August 09, 2019

MIKE CARMONA TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: BIG PAPI FEDERAL COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 08/08/19 17:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: BACKGROUND #1 (0-1') (H902738-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 %	6 73.3-12	9						
Chloride, SM4500Cl-B mg/kg			Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/09/2019	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	203	102	200	2.11	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	195	97.5	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	118 %	6 41-142							
Surrogate: 1-Chlorooctadecane	122 %	37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: BACKGROUND #1 (2') (H902738-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/09/2019	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	203	102	200	2.11	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	195	97.5	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	117 %	6 41-142							
Surrogate: 1-Chlorooctadecane	123 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: TRENCH 1 (4' BEB) (1') (H902738-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5280	16.0	08/09/2019	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	203	102	200	2.11	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	195	97.5	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	117 9	% 41-142							
Surrogate: 1-Chlorooctadecane	120 9	37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: TRENCH 1 (4' BEB) (2') (H902738-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	08/09/2019	ND	448	112	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: TRENCH 2 (4' BEB) (1') (H902738-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	08/09/2019	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	203	102	200	2.11	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	195	97.5	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	119 %	6 41-142							
Surrogate: 1-Chlorooctadecane	123 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: TRENCH 2 (4' BEB) (2') (H902738-06)

Chloride, SM4500Cl-B		/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3880	16.0	08/09/2019	ND	448	112	400	3.64	

Sample ID: TRENCH 2 (4' BEB) (3') (H902738-07)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6960	16.0	08/09/2019	ND	448	112	400	3.64	

Sample ID: TRENCH 2 (4' BEB) (4') (H902738-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	08/09/2019	ND	448	112	400	3.64	

Sample ID: TRENCH 2 (4' BEB) (5') (H902738-09)

Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11500	16.0	08/09/2019	ND	448	112	400	3.64	

Sample ID: TRENCH 2 (4' BEB) (6') (H902738-10)

Chloride, SM4500Cl-B	mg/	kg	Analyzed	l By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9200	16.0	08/09/2019	ND	448	112	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

Mite Sough

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Kecetved by	pcp: alinquished by:		Bellinguished by:	Selinquished by:	9 TREN	5 TRENC	7 TRENC	6 TREN	5 TRENC	4 TRENC	3 TRENC	2 Backy	1 Backs	(LAB USE)	LAB #	H902738	Comments:		Involce to:	Project Location: (county, state)	Project Name:	Client Name:	F	Analysis Request c	Page 9 of 9
5. 2.	Date: Time:		Young 8/8/14 1560	CH Z (4' BEB) (6') Date: Time:	CH 2 (4 \$ BEB) 15')	H Z (4'3E3) (4')	H 2 (4' BEB) (3')	CH 2 (4' BEB) (2')	H 2 (4' BEB) (1')	+1 1 (4' BEB) (2')	H ((4' BEB) (1')	round #1 (2')	round #1 (0+1)		SAMPLE IDENTIFICATION			Cardinal	COG - Ike Tavarez	Eddy Co, NM	Big Papi Fed Com 2H (7.12.14)	Concho	Tetra Tech, Inc.	of Chain of Custody Record	L
ORIGINAL COPY	Received by:	and an and a start of the start	HOUL J	Bocolvad hv									2/8/19	DATE	YEAR: 2019	SAMPLING		Sampler Signature:		Project #:		Site Manager:			
	Date: Time:		els war and										×	WATE SOIL HCL HNO ₃ ICE None	R	MATRIX PRESERVATIVE METHOD		Conner Moehring		212C-MD-01885		Mike Carmona	901W Wall Street, Ste 100 Midland, Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946		
(Circle	1.2	0.5	19 JO: M						X		X	XIII	- Z X	# CONT FILTERI BTEX 80	ED (Y 221B	RS (/N) BTE	X 8260B								
) HAND DELIVERED FE	12/#91	e Temperature							X		\times	×	×	TPH 80 PAH 82 Total Me TCLP Me TCLP Vo TCLP Se	15M (70C tals A etals / latiles mi Vo	GRO - GRO - Ag As Ba Ag As B s platiles	DRO - C a Cd Cr F a Cd Cr	PBO - N Pb Se H Pb Se	MRO) Hg Hg			ANAL			
EDEX UPS Tracking #:	Special Report Limits or TRRP I	Push Charges Authorized	STANDARD	×	X	X	×	X	×	X	×	X	×	RCI GC/MS V GC/MS S PCB's 80 NORM PLM (Ast Chloride Chloride General	/ol. 8 Semi. D82 / Desto: Su Su Wate	Vol. 82 608 s) Ilfate r Chem	624 70C/625 TDS iistry (se	e atta	ched lis	st)	specity internod No.)	LYSIS REQUEST	2	Page	
Palagsad	Report	3 nr /2 nr						2						Anion/Ca Hold	ation	Balance	•				_			of 1	



August 09, 2019

MIKE CARMONA TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: BIG PAPI FEDERAL COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 08/08/19 17:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: BOTTOM HOLE #1 (4' BEB) (H902739-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	08/09/2019	ND	416	104	400	0.00	QM-07
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	203	102	200	2.11	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	195	97.5	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	112 %	6 41-142							
Surrogate: 1-Chlorooctadecane	115 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: BOTTOM HOLE #2 (4' BEB) (H902739-02)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	203	102	200	2.11	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	195	97.5	200	1.28	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	111 %	6 41-142							
Surrogate: 1-Chlorooctadecane	113 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager


TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: BOTTOM HOLE #3 (4' BEB) (H902739-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	106 %	6 41-142							
Surrogate: 1-Chlorooctadecane	109 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: NORTH SIDEWALL (H902739-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	116 %	6 41-142							
Surrogate: 1-Chlorooctadecane	121 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: EAST 1 SIDEWALL (H902739-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	1.91	95.5	2.00	3.81	
Toluene*	<0.050	0.050	08/09/2019	ND	1.92	96.2	2.00	1.60	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	1.92	95.8	2.00	2.17	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	118 %	6 41-142							
Surrogate: 1-Chlorooctadecane	124 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: EAST 2 SIDEWALL (H902739-06)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	2.05	102	2.00	0.251	
Toluene*	<0.050	0.050	08/09/2019	ND	2.15	108	2.00	1.81	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	2.03	102	2.00	1.25	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	6.09	102	6.00	0.936	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	95.8 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	123 %	6 41-142							
Surrogate: 1-Chlorooctadecane	128 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: WEST 1 SIDEWALL (H902739-07)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	2.05	102	2.00	0.251	
Toluene*	<0.050	0.050	08/09/2019	ND	2.15	108	2.00	1.81	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	2.03	102	2.00	1.25	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	6.09	102	6.00	0.936	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.6 %	73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	112 %	6 41-142							
Surrogate: 1-Chlorooctadecane	118 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: WEST 2 SIDEWALL (H902739-08)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	2.05	102	2.00	0.251	
Toluene*	<0.050	0.050	08/09/2019	ND	2.15	108	2.00	1.81	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	2.03	102	2.00	1.25	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	6.09	102	6.00	0.936	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.8 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1250	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	110 %	6 41-142							
Surrogate: 1-Chlorooctadecane	114 %	6 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/08/2019	Sampling Date:	08/08/2019
Reported:	08/09/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

Sample ID: SOUTH 1 SIDEWALL (H902739-09)

BTEX 8021B	mg/kg		Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/09/2019	ND	2.05	102	2.00	0.251	
Toluene*	<0.050	0.050	08/09/2019	ND	2.15	108	2.00	1.81	
Ethylbenzene*	<0.050	0.050	08/09/2019	ND	2.03	102	2.00	1.25	
Total Xylenes*	<0.150	0.150	08/09/2019	ND	6.09	102	6.00	0.936	
Total BTEX	<0.300	0.300	08/09/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.2 9	73.3-12)						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7520	16.0	08/09/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/09/2019	ND	195	97.7	200	4.87	
DRO >C10-C28*	<10.0	10.0	08/09/2019	ND	191	95.7	200	5.50	
EXT DRO >C28-C36	<10.0	10.0	08/09/2019	ND					
Surrogate: 1-Chlorooctane	120 %	6 41-142							
Surrogate: 1-Chlorooctadecane	124 %	6 37.6-142	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Keceivea by		Relinquished by:		Relinquished by:	Brine my	Belinguished by:	SOUTH	D WEST	2 WEST	1 C EPST 2	U EAST	2 NORT	5 50710	2 BOTTON	1 60110	(LAB USE)	LAB #	H9DZ739	Continents:	Commonto:		(county, state)		Droiget Name.	Client Name:	Analysis Request of
		Date: Time:		Date: Time-	ourin 3/8/19 1700	Date: Time:	1 1 SIDEWALL	2 SIDEWALL	1 SIDEWALL	SIDEWALL	SIDEWALL	H SIDEWALL	M HOLE #3	M HOLE #2 (1)	W HOLE#1 (4' BEB)		SAMPLE IDENTIFICATION			Cardinal	COG - Ike Tavarez	Eddy Co, NM	Big Papi Fed Com 2H (T.iz.14)	Concho	Tetra Tech, Inc	of Chain of Custody Record
ORIGINAL COP	neceived by:	Deceived by:	Occived by.	HAVIN V	necelved by:		21812	518/15	121 8 32	5 8 19	21/3/2	18/8/18	6188	181818	818	DATE	YEAR: 2019	SAMPLING		Sampler Signature:		Project #:			• Sife Mananer	
~	Date: Time	1	Date: Ime	ANMAN ARIA	Date: Time		×	×	×	×	×	×	×	×××	×	WATEF SOIL HCL HNO ₃ ICE	3	MATRIX PRESERVA METHO		Conner Moehrin		212C-MD-01885		Mike Carmona	901W Wall Street, Ste 11 Midiand,Texas 79705 Tel (432) 682-4559 Fax (432) 682-3946	
Cit	Ģ		e: San	17.06	8 		- 2 ×	X N I	- 2 X	- Z X	- 2 X	Y N I	- 7 ×	- Z ×	- Z X	None # CONT/ FILTERE BTEX 80	AINE D (Y	RS /N) BTE>	K 8260B	Ð						
10) HAND DELIVERED F		10.1#07	the Temperature	ONLY	LAB USE REMA		×	×	×	X	×	X	×	×	×	TPH TX1 TPH 801 PAH 827 Total Meta TCLP Meta TCLP Vola TCLP Ser	005 (5M (0C als Ag tals A atiles	(Ext to (GRO - g As Ba g As Ba latiles	C35) DRO - O I Cd Cr P a Cd Cr F	RO - M b Se H Pb Se I	IRO) g lg			ANA		
EDEX UPS Tracking #:	Special Report Limits or TRRP Repo	Rush Charges Authorized	RUSH: Same Day (24 hr) 48 hr		RKS: STANDARD		×	×	×	×	×	×	×	×	×	RCI GC/MS Vo GC/MS Se PCB's 80 NORM PLM (Asbe Chloride Chloride General V Anion/Cat	ol. 82 emi. \ 82 / 6 estos Sul Vater ion E	260B / 6 Vol. 82 508) Ifate Chemi Balance	324 70C/625 TDS istry (see	e attac	hed list)	Specity Method No.)	LYSIS REQUEST		Page 1
Palaas	on		72 hr 7		021	0.1										Hold							_			of t



August 14, 2019

MIKE CARMONA TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: BIG PAPI FEDERAL COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 08/13/19 17:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/13/2019	Sampling Date:	08/13/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: BOTTOM HOLE #2 (6' BEB) (H902775-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/14/2019	ND	1.85	92.4	2.00	1.69	
Toluene*	<0.050	0.050	08/14/2019	ND	1.97	98.6	2.00	4.30	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	1.97	98.7	2.00	4.93	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	5.99	99.8	6.00	6.80	
Total BTEX	<0.300	0.300	08/14/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/14/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/14/2019	ND	194	97.1	200	7.24	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	180	90.0	200	9.13	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					
Surrogate: 1-Chlorooctane	69.8 9	% 41-142							
Surrogate: 1-Chlorooctadecane	67.9 \$	37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/13/2019	Sampling Date:	08/13/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: BOTTOM HOLE #3 (6' BEB) (H902775-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/14/2019	ND	1.85	92.4	2.00	1.69	
Toluene*	<0.050	0.050	08/14/2019	ND	1.97	98.6	2.00	4.30	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	1.97	98.7	2.00	4.93	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	5.99	99.8	6.00	6.80	
Total BTEX	<0.300	0.300	08/14/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/14/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/14/2019	ND	194	97.1	200	7.24	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	180	90.0	200	9.13	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					
Surrogate: 1-Chlorooctane	70.5	% 41-142							
Surrogate: 1-Chlorooctadecane	70.7	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

Received:	08/13/2019	Sampling Date:	08/13/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	BIG PAPI FEDERAL COM 2H	Sampling Condition:	Cool & Intact
Project Number:	212C -MD - 01885 (7-12-19)	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

Sample ID: EAST 2 SIDEWALL (H902775-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/14/2019	ND	1.85	92.4	2.00	1.69	
Toluene*	<0.050	0.050	08/14/2019	ND	1.97	98.6	2.00	4.30	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	1.97	98.7	2.00	4.93	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	5.99	99.8	6.00	6.80	
Total BTEX	<0.300	0.300	08/14/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/14/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/14/2019	ND	194	97.1	200	7.24	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	180	90.0	200	9.13	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					
Surrogate: 1-Chlorooctane	76.2 %	% 41-142							
Surrogate: 1-Chlorooctadecane	75.5 %	37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

gig	eceived by	OCD:	2/21/20	22 9:0	8:02 0	<u> 1</u>	TT		Τ	Т	Τ	(7	8			(Q Pr	Pr	0	<u> </u>	age 87 of 2
Image: control of channel of cha		linquished by:	iniquisited by:	CONVER	linquished by:				U	NN	<u>ا</u>	LAB USE	LAB #	ANTR	omments:	cerving Laborato	voice to:	oject Location: ounty, state)	oject Name:	ient Name:	5	9 Jo 9 ebe nalysis Req
Image: Strategy of the lange of th		Date: Time:	Date: lime:	young 8/13/19	Date: Time:	•				Softer Hoir #3 (G' BAB)	Softon tive # P @ (G' BER)		SAMPLE IDENTIFICATION			vy: Cardinal	COG - Ike Tavarez	Eddy Co, NM	Big Papi Fed Com 2H (ヿ.ぃぇ.ぃ∽)	Concho	Tetra Tech, Inc.	4 uest of Chain of Custody Record
Mile Carmona Mile Carmona Vinice Carmona Vinice Carmona	ORIGINAL CC	Received by:	Received by:	Jama	Received hv:				1.16.10	8/12/14	Slish	DATE	YEAR: 2019	SAMPLIN		Sampler Signature		Project #:		Site Manager:	Ш	
Page	γq	Di	D	ra Elda						< \	*	TIME WATE SOIL	R	G MATRIX		" Conne		212C-I		Mike Carr	901W W Midlar Tel (- Fax (
Page - - - # CONTAINERS ANALYSIS RECUEST Circle or Specify Method - - - # CONTAINERS Circle or Specify Method Sample Temperate - - - - # CONTAINERS Circle or Specify Method ONLY - - - - - - - - Sample Temperate -		ate: Time:	Time:	Suc 8-13-1	Timo					< ~	< ×	HCL HNO ₃ ICE None		PRESERVATIVE METHOD		r Moehring		MD-01885		mona	/all Street, Ste 100 nd, Texas 79705 (432) 682-4559 (432) 682-3946	
Part 2021B BTEX 8260B Clicicle or Specify Method No.) Sample Temperature Interview Sample Temperature PAH 8270C Clicicle or Specify Method No.) OR CLP Semi Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg Clicicle or Specify Method No.) STANDARD OR Clicicle States OR Post Units: Same Day Cliff, 48 hr OR Cliffe Sulfate TDS Cliffe Or TRAP Papor OR Cliffe Sulfate TDS OR Cliffe Sulfate TDS OR Cliffe Sulfate TDS OR Cliffe Sulfate TDS <td colspan="</td> <td></td> <td></td> <td></td> <td>9 17:10</td> <td></td> <td></td> <td></td> <td></td> <td>- 7</td> <td>- 7</td> <td>- 7</td> <td># CONT FILTER</td> <td>aine Ed (Y</td> <td>RS /N)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				9 17:10					- 7	- 7	- 7	# CONT FILTER	aine Ed (Y	RS /N)								
Page Imaging: 3/15/2022 2/42-4/14/4 Page Imaging: 3/15/2022 2/42-4/14/4	(Circle	26	Samp	-	H				X	×	×	BTEX 8	021B	BTE	X 8260B							
Part B2/DC Circle of Specify Method No. Circle of Specify Method No. TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg Image: Strand Strain Stra	HAN	1 de	le Temp	ONL	H				×	×	7	TPH 80	15M (GRO -	DRO - 0	RO - N	/IRO)		_			
Imaging: 3/15/2022 2:42:49 Att Imaging: 3/15/2022 2:49 Att Imaging: 3/		Cont	erature	ISE								Total Me	tals A	g As Ba	a Cd Cr F	b Se H	lg			i.		
TELEX UPS Tracking #:	VERED	<u> </u>	2		1				_	-		TCLP Me TCLP Vo	etals A platiles	g As E	Ba Cd Cr I	Pb Se	Hg			Ą		
Imaging: 3/15/2022 9:49:49 AM Imaging: 3/15/2022 9:49	Ē	[_						TCLP Se RCI	emi Vo	latiles						VALY		
Page Page Tracking #: Page Released to Imaging: 3/15/2022 2:42:49 AM		ecial F	JSH:	STA					_			GC/MS	/ol. 82	260B /	624		-			SIS		
Tacking #: Limits or TRRP Report Authorized Anion/Cation Balance Anion/Cation	ъ К	Report	Same	NDA	Þ							PCB's 8	082 / 6	308 308	100/025	-			Y M	REQ		
** or TRPP Report Chloride Chloride <td< td=""><td>racking</td><td>Limits</td><td>Day (</td><td>RD</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>NORM PLM (Asl</td><td>pestos</td><td>)</td><td>1</td><td></td><td></td><td></td><td>- ethc</td><td>UEST</td><td></td><td>P</td></td<>	racking	Limits	Day (RD								NORM PLM (Asl	pestos)	1				- ethc	UEST		P
Released to Imaging: 3/15/2022 9:42:49 AM	*	or TR	24 hr)					×	×	×	Chloride Chloride	Su	fate	TDS				- d N			age
Released to Imaging: 3/15/2022 9:42:49 AM		RP Re	48 h									General	Water	Chen	nistry (se	e attac	ched lis	st)	<u> ?</u>			
P P P Released to Imaging: 3/15/2022 9:42:49 AM Hold Hold		port	IF 72									Anion/Ca	auon E	alanc	е							
Released to Imaging: 3/15/2022 9:42:49 AM			hr		\vdash	+		++	+													ू द
	Released to	Imagin	g: 3/15	/2022	9:42:	49 AN						Hold							_			-



Project Id:	212C-MD-01855
Contact:	Mike Carmona
Project Location:	Eddy Co, NM

Certificate of Analysis Summary 652156

Tetra Tech- Midland, Midland, TX Project Name: Big Pappy Fed Com 2H (7-12-19)

Date Received in Lab:Wed Feb-12-20 01:15 pmReport Date:14-FEB-20Project Manager:Jessica Kramer

	Lab Id:	652156-0	01	652156-0	652156-002		03	652156-0	04	652156-0	05	652156-0)06
Analysis Requested	Field Id:	AH#2 (0-	1')	AH#2 (1-1	.5')	AH#3(0-1')		AH#4(0-1')		AH#4 (1-1.5')		AH#4 (1.5-2')	
Analysis Requested	Depth:	0-1 ft		1-1.5 ft	1-1.5 ft		0-1 ft		0-1 ft		1-1.5 ft		t
	Matrix:	SOIL	SOIL		SOIL		SOIL		SOIL			SOIL	
	Sampled:	Feb-12-200	Feb-12-20 00:00		00:00	Feb-12-20 00:00		Feb-12-20 00:00		Feb-12-20 00:00		Feb-12-20 00:00	
Chloride by EPA 300	Extracted:	Feb-12-20 1	4:30	Feb-12-20 14:30		Feb-12-20 1	4:30	Feb-12-20 1	4:30	Feb-12-20 14:30		Feb-12-20 1	14:30
	Analyzed:	Feb-12-20 1	Feb-12-20 16:31		6:37	Feb-12-20 1	6:43	Feb-12-20 1	6:49	Feb-12-20	16:55	Feb-12-20 1	17:01
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		67.4	10.0	197	10.1	248	9.98	142	9.88	189	9.94	607	9.90

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

Version: 1.%

fession kenner

Jessica Kramer Project Assistant



Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy Co, NM

Certificate of Analysis Summary 652156

Tetra Tech- Midland, Midland, TX Project Name: Big Pappy Fed Com 2H (7-12-19) Page 89 of 220

Date Received in Lab:Wed Feb-12-20 01:15 pmReport Date:14-FEB-20Project Manager:Jessica Kramer

	Lab Id:	652156-0	07	652156-0	008	652156-0	09	652156-0	10	652156-0	11	652156-0	012
Analysis Paguastad	Field Id:	AH#5(0-	1')	AH#5 (1-1	1.5')	AH#5 (2-2.5')		AH#6(0-1')		AH#7 (0-6")		AH#8 (0-6")	
Analysis Requested	Depth:	0-1 ft		1-1.5 f	1-1.5 ft		2-2.5 ft		0-1 ft		0-6 In		
	Matrix:	SOIL	SOIL		SOIL		SOIL			SOIL		SOIL	
	Sampled:	Feb-12-20 (Feb-12-20 00:00		Feb-12-20 00:00		00:00	Feb-12-20 0	00:00	Feb-12-20 00:00		Feb-12-20 00:00	
Chloride by EPA 300	Extracted:	Feb-12-20 1	Feb-12-20 14:30		Feb-12-20 14:30		14:30	Feb-12-20 1	4:30	Feb-12-20 14:30		Feb-12-20	14:30
	Analyzed:	Feb-12-20 17:19		Feb-12-20	17:25	Feb-12-20	17:42	Feb-12-20 1	7:48	Feb-12-20 1	7:54	Feb-12-20	18:00
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		624	9.98	823	10.0	1040	9.96	310	9.98	69.7	9.98	<9.92	9.92

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

Version: 1.%

fession kramer

Jessica Kramer Project Assistant



Certificate of Analysis Su	ummary 652156
----------------------------	---------------

Tetra Tech- Midland, Midland, TX

Page 90 of 220

Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy Co, NM

 Project Name: Big Pappy Fed Com 2H (7-12-19)
 Date Received in Lab:
 Wed Feb-12-20 01:15 pm

 Report Date:
 14-FEB-20
 Project Manager:
 Jessica Kramer

	Lab Id:	652156-0	013	652156-0	014	652156-015		652156-0	016	652156-0	17	652156-0	018
Analysis Requested	Field Id:	AH#9 (0-	6")	AH#10 (0	-6")	AH#11 (0	-6")	AH#12 (0	-6")	AH#13 (0	-6")	AH#14 (0)-6")
Analysis Requested	Depth:	0-6 In		0-6 In	0-6 In		0-6 In			0-6 In		0-6 In	ı
	Matrix:	SOIL	SOIL		SOIL		SOIL			SOIL		SOIL	
	Sampled:	Feb-12-20	Feb-12-20 00:00		Feb-12-20 00:00		00:00	Feb-12-20 (00:00	Feb-12-20 00:00		Feb-12-20 00:00	
Chloride by EPA 300	Extracted:	Feb-12-20	14:30	Feb-12-20 14:30		Feb-12-20	14:30	Feb-12-20	17:31	Feb-12-20	7:31	Feb-12-20	17:31
	Analyzed:	Feb-12-20	Feb-12-20 18:06		8:12	Feb-12-20	18:18	Feb-12-20	18:56	Feb-12-20	9:15	Feb-12-20	19:22
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		29.1	9.92	99.2	9.98	160	9.90	34.4	9.98	29.6	9.88	15.3	9.92

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

Version: 1.%

fession kenner

Jessica Kramer Project Assistant

Analytical Report 652156

for Tetra Tech- Midland

Project Manager: Mike Carmona

Big Pappy Fed Com 2H (7-12-19)

212C-MD-01855

14-FEB-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) Received by OCD: 2/21/2022 9:08:02 AM



14-FEB-20

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: XENCO Report No(s): 652156 Big Pappy Fed Com 2H (7-12-19) 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) 652156. 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. 652156 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,

Jessica Veramer

Jessica Kramer Project Assistant

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 Id

AH#2 (0-1')
AH#2 (1-1.5')
AH#3(0-1')
AH#4(0-1')
AH#4 (1-1.5')
AH#4 (1.5-2')
AH#5(0-1')
AH#5 (1-1.5')
AH#5 (2-2.5')
AH#6(0-1')
AH#6(0-1') AH#7 (0-6")
AH#6(0-1') AH#7 (0-6") AH#8 (0-6")
AH#6(0-1') AH#7 (0-6") AH#8 (0-6") AH#9 (0-6")
AH#6(0-1') AH#7 (0-6") AH#8 (0-6") AH#9 (0-6") AH#10 (0-6")
AH#6(0-1') AH#7 (0-6") AH#8 (0-6") AH#9 (0-6") AH#10 (0-6") AH#11 (0-6")
AH#6(0-1') AH#7 (0-6") AH#8 (0-6") AH#9 (0-6") AH#10 (0-6") AH#11 (0-6") AH#12 (0-6")
AH#6(0-1') AH#7 (0-6") AH#8 (0-6") AH#9 (0-6") AH#10 (0-6") AH#11 (0-6") AH#12 (0-6") AH#13 (0-6")

Sample Cross Reference 652156

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	02-12-20 00:00	0 - 1 ft	652156-001
S	02-12-20 00:00	1 - 1.5 ft	652156-002
S	02-12-20 00:00	0 - 1 ft	652156-003
S	02-12-20 00:00	0 - 1 ft	652156-004
S	02-12-20 00:00	1 - 1.5 ft	652156-005
S	02-12-20 00:00	1.5 - 2 ft	652156-006
S	02-12-20 00:00	0 - 1 ft	652156-007
S	02-12-20 00:00	1 - 1.5 ft	652156-008
S	02-12-20 00:00	2 - 2.5 ft	652156-009
S	02-12-20 00:00	0 - 1 ft	652156-010
S	02-12-20 00:00	0 - 6 In	652156-011
S	02-12-20 00:00	0 - 6 In	652156-012
S	02-12-20 00:00	0 - 6 In	652156-013
S	02-12-20 00:00	0 - 6 In	652156-014
S	02-12-20 00:00	0 - 6 In	652156-015
S	02-12-20 00:00	0 - 6 In	652156-016
S	02-12-20 00:00	0 - 6 In	652156-017
S	02-12-20 00:00	0 - 6 In	652156-018

.





Client Name: Tetra Tech- Midland Project Name: Big Pappy Fed Com 2H (7-12-19)

Project ID: 212C-MD-01855 Work Order Number(s): 652156

TORIES

Report Date: 14-FEB-20 Date Received: 02/12/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3116368 Chloride by EPA 300

Lab Sample ID 652161-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 652156-016, -017, -018.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



1

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id: AH#2 (0-1') Lab Sample Id: 652156-001			Matrix: Date Collecte	Soil d: 02.12.20 00.00	Date Received:02.12.20 13.15 Sample Depth: 0 - 1 ft					
Analytical Meth Tech: Analyst: Seq Number:	hod: Chloride by EPA 30 MAB MAB 3116357	0	Date Prep:	02.12.20 14.30		Prep Method: % Moisture: Basis:	E300P Wet W	eight		
Parameter		Cas Number	Result R	L	Units	Analysis Da	ate I	Flag	Dil	

16887-00-6 **67.4**

10.0

mg/kg

02.12.20 16.31

Released to Imaging: 3/15/2022 9:42:49 AM



1

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#2 (1-1.5')		Matrix:	Soil		Date Received	1:02.12	2.20 13.15		
Lab Sample Id: 652156-002			Date Collect	ed: 02.12.20 00.00	Sample Depth: 1 - 1.5 ft					
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300	Р		
Tech:	MAB					% Moisture:				
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Weight		
Seq Number:	3116357									
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil	

Chloride

16887-00-6 197

10.1

02.12.20 16.37

mg/kg

Released to Imaging: 3/15/2022 9:42:49 AM



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#3(0-1')		Matrix:	Soil		Date Received	1:02.12.	.20 13.15			
Lab Sample Id: 652156-003			Date Collected: 02.12.20 00.00			Sample Depth: 0 - 1 ft					
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300P	þ			
Tech:	MAB					% Moisture:					
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet W	Veight			
Seq Number:	3116357										
Parameter		Cas Number	Result]	RL	Units	Analysis Da	ate	Flag	Dil		

248

Chloride

16887-00-6

9.98

02.12.20 16.43

mg/kg



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#4(0-1')		Matrix:	Soil		Date Received	1:02.12.	.20 13.15		
Lab Sample Id: 652156-004			Date Collected: 02.12.20 00.00			Sample Depth: 0 - 1 ft				
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300F	þ		
Tech:	MAB					% Moisture:				
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet W	Veight		
Seq Number:	3116357									
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate	Flag	Dil	

16887-00-6 142

9.88

mg/kg 02.12.20 16.49



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#4 (1-1.5')		Matrix:	Soil		Date Received	1:02.12	.20 13.15	
Lab Sample Id	. 052150-005		Date Collecto	30:02.12.20 00.00		Sample Depth	:1 - 1.2	5 11	
Analytical Me	hod: Chloride by EPA 30	00				Prep Method:	E300I	Р	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Veight	
Seq Number:	3116357								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate	Flag	Dil

189

16887-00-6

9.94

mg/kg 02.12.20 16.55



1

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id: Lab Sample Id	AH#4 (1.5-2')		Matrix: Date Collect	Soil ed: 02-12-20-00-00		Date Received	1:02.12 ·1 5 - 2	.20 13.15 2 ft	
Analytical Me	thod: Chloride by EPA 30	00	Dute Concer			Prep Method:	E300I	P	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Veight	
Seq Number:	3116357								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil

607

16887-00-6

9.90

02.12.20 17.01

mg/kg



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#5(0-1')		Matrix:	Soil		Date Received	1:02.12.	20 13.15	
Lab Sample Id:	652156-007		Date Collect	ed: 02.12.20 00.00		Sample Depth	:0 - 1 ft	t	
Analytical Met	hod: Chloride by EPA 30	00				Prep Method:	E300P)	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet W	Veight	
Seq Number:	3116357								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil

624

Chloride

16887-00-6

9.98

mg/kg 02.12.20 17.19



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#5 (1-1.5')		Matrix:	Soil		Date Received	1:02.12	2.20 13.15	
Lab Sample Id: 652156-008			Date Collected: 02.12.20 00.00		Sample Depth: 1 - 1.5 ft				
Analytical Met	hod: Chloride by EPA 30	00				Prep Method:	E300	Р	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Weight	
Seq Number:	3116357								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil

16887-00-6 823

10.0

0

mg/kg

02.12.20 17.25



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#5 (2-2.5')		Matrix:	Soil		Date Received	1:02.12.	20 13.15	
Lab Sample Id: 652156-009			Date Collected: 02.12.20 00.00		Sample Depth: 2 - 2.5 ft				
Analytical Me	thod: Chloride by EPA 30)0				Prep Method:	E300P)	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet W	/eight	
Seq Number:	3116357								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate 1	Flag	Dil

1040

Chloride

16887-00-6

9.96

mg/kg 02.12.20 17.42



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id: AH#6(0-1') Lab Sample Id: 652156-010		Matrix: Date Collecte	Soil ed: 02.12.20 00.00]	Date Received: Sample Depth:	02.12.20 13.15 0 - 1 ft	
Analytical Method: Chloride by EF Tech: MAB Analyst: MAB Seq Number: 3116357	PA 300	Date Prep:	02.12.20 14.30]	Prep Method: 1 % Moisture: Basis:	E300P Wet Weight	
Parameter	Cas Number	Result 1	RL	Units	Analysis Dat	e Flag	Dil

Chloride

16887-00-6 **310**

9.98

mg/kg 02.12.20 17.48

1

Released to Imaging: 3/15/2022 9:42:49 AM



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:AHLab Sample Id:652	# 7 (0-6'') 2156-011		Matrix: Date Collecte	Soil d: 02.12.20 00.00		Date Received Sample Depth:	:02.12. :0 - 6 Iı	20 13.15 n	
Analytical Method: Tech: MAI Analyst: MAI	Chloride by EPA 30 B B 5357	0	Date Prep:	02.12.20 14.30		Prep Method: % Moisture: Basis:	E300P Wet W	/eight	
Parameter	1 220	Cas Number	Result F	RL .	Units	Analysis Da	ite]	Flag	Dil

69.7

Chloride

16887-00-6

9.98

mg/kg 02.12.20 17.54



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#8 (0-6'')		Matrix:	Soil		Date Received	1:02.12.20 13.	15
Lab Sample Id	: 652156-012		Date Collected	1:02.12.20 00.00		Sample Depth	:0 - 6 In	
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet Weight	
Seq Number:	3116357							
Parameter		Cas Number	Result R	L	Units	Analysis Da	ate Flag	Dil

<9.92

Chloride

16887-00-6

9.92

mg/kg 02.12

02.12.20 18.00

U



1

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#9 (0-6'')		Matrix:	Soil		Date Received	1:02.12	2.20 13.15		
Lab Sample Id	: 652156-013		Date Collected: 02.12.20 00.00			Sample Depth: 0 - 6 In				
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300	Р		
Tech:	MAB					% Moisture:				
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Weight		
Seq Number:	3116357									
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil	

Chloride

29.1

16887-00-6

9.92

02.12.20 18.06

mg/kg



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#10 (0-6'')		Matrix:	Soil		Date Received	1:02.12	2.20 13.15		
Lab Sample Id:	652156-014		Date Collected: 02.12.20 00.00			Sample Depth: 0 - 6 In				
Analytical Met	hod: Chloride by EPA 30	00				Prep Method:	E300	P		
Tech:	MAB					% Moisture:				
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Weight		
Seq Number:	3116357									
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil	

99.2

Chloride

16887-00-6

9.98

02.12.20 18.12

mg/kg


Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#11 (0-6'')		Matrix:	Soil		Date Received	1:02.12	2.20 13.15	
Lab Sample Id	: 652156-015		Date Collect	ed: 02.12.20 00.00		Sample Depth	:0-6]	In	
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300	Р	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 14.30		Basis:	Wet V	Weight	
Seq Number:	3116357								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate	Flag	Dil

160

Chloride

16887-00-6

9.90

90

02.12.20 18.18

mg/kg

1

Released to Imaging: 3/15/2022 9:42:49 AM



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#12 (0-6'')		Matrix:	Soil		Date Received	I:02.12.20 13.	15
Lab Sample Id	: 652156-016		Date Collect	ed: 02.12.20 00.00		Sample Depth	:0 - 6 In	
Analytical Me	thod: Chloride by EPA 30	00				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep:	02.12.20 17.31		Basis:	Wet Weight	
Seq Number:	3116368							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil

Chloride

16887-00-6 **34.4**

9.98

mg/kg 02.12.20 18.56



Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:	AH#13 (0-6'')		Matrix:	Soil		Date Received	1:02.12	2.20 13.15	
Lab Sample Id	: 652156-017		Date Collect	ed: 02.12.20 00.00		Sample Depth	:0-6	In	
Analytical Met	thod: Chloride by EPA 30	00				Prep Method:	E300	Р	
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep:	02.12.20 17.31		Basis:	Wet V	Weight	
Seq Number:	3116368								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil

29.6

16887-00-6

9.88

mg/kg 02.12.20 19.15



1

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

Sample Id:AH#14Lab Sample Id:65215	l (0-6'') 5-018	Matrix: Date Collected	Soil : 02.12.20 00.00	Date Received Sample Depth:	:02.12.20 13.15 0 - 6 In
Analytical Method: C Tech: MAB Analyst: MAB Seq Number: 311636	nloride by EPA 300 8	Date Prep:	02.12.20 17.31	Prep Method: % Moisture: Basis:	E300P Wet Weight
Parameter	Cas Number	Result RI	L Units	Analysis Da	ite Flag Dil

15.3

16887-00-6

9.92

02.12.20 19.22

mg/kg

Released to Imaging: 3/15/2022 9:42:49 AM



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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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



BORATORIES

Analytical Method: Chloride by EPA 300



Prep Method: E300P

Tetra Tech- Midland

Big Pappy Fed Com 2H (7-12-19)

Seq Number:	3116357			Matrix:	Solid			Date I	rep: 02.1	12.20	
MB Sample Id:	7696526-1-BLK		LCS Sar	nple Id:	7696526-	1-BKS		LCSD Samp	ole Id: 769	6526-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD RPD Li	mit Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	256	102	90-110	0 20	mg/kg	02.12.20 15:26	
Analytical Method:	Chloride by EPA 3	300						Prep Met	hod: E30	00P	
Seq Number:	3116368			Matrix:	Solid			Date I	Prep: 02.1	12.20	
MB Sample Id:	7696527-1-BLK		LCS Sat	nple Id:	7696527-	1-BKS		LCSD Samp	ole Id: 769	6527-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD RPD Li	mit Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	258	103	90-110	1 20	mg/kg	02.12.20 18:43	
Analytical Method:	Chloride by EPA 3	300						Prep Met	hod: E30	00P	
Seq Number:	3116357			Matrix:	Soil			Date I	rep: 02.1	12.20	
Parent Sample Id:	652152-004		MS Sar	nple Id:	652152-0	04 S		MSD Samp	le Id: 652	152-004 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD RPD Li	mit Units	Analysis Date	Flag
Chloride	17.5	200	205	94	207	95	90-110	1 20	mg/kg	02.12.20 15:44	
Analytical Method:	Chloride by EPA 3	300						Pren Met	hod: E30	00P	
Seq Number:	3116357			Matrix:	Soil			Date I	Prep: 02.1	12.20	
Parent Sample Id:	652156-006		MS Sar	nple Id:	652156-0	06 S		MSD Samp	ole Id: 652	156-006 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD RPD Li	mit Units	Analysis Date	Flag
Chloride	607	199	812	103	816	105	90-110	0 20	mg/kg	02.12.20 17:07	
Analytical Method:	Chloride by EPA 3	300						Prep Met	hod: E30	00P	
Seq Number:	3116368			Matrix:	Soil			Date I	Prep: 02.1	12.20	

Parent Sample Id:	652156-016		MS San	nple Id:	652156-01	6 S		MS	D Sample	e Id: 6521	56-016 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Chloride	34.4	200	253	109	264	115	90-110	4	20	mg/kg	02.12.20 19:02	Х

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

.

Page 27 of 31





QC Summary 652156

Tetra Tech- Midland

Big Pappy Fed Com 2H (7-12-19)

Analytical Method: Seq Number: Parent Sample Id:	Chloride by EPA 3116368 652161-008	300	MS Sar	Matrix: nple Id:	Soil 652161-00)8 S		P MS	rep Metho Date Pre D Sample	d: E3 p: 02 Id: 65	00P .12.20 2161-008 SD	
Parameter	Paren Resul	t Spike t Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Chloride	25.	8 200	237	106	239	107	90-110	1	20	mg/kg	02.12.20 20:32	

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

[D] = 100*(C-A) / BRPD = 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

Conclo Interview of the Concentration of the Concentr
Site Manager:
Building and a start of the set of th
Street. Ste 100 The street. Ste 100 PRESERVATIVE INCE ANALYSIS REQUEST (Circle or Specify Method No.) PRESERVATIVE INCE Circle Or Specify Method No.) Circle Or Specify Method No.) Circl
Order Torum Torum Torum Torum Circle or Specify Method No. Sample Temperature Image: Standard Standa
ANALYSIS REQUEST Circle or Specify Method No.) PAH 8270C Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles REMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PREMARKS: PCB's 8082 / 608 NORM PLM (Asbestos) PLM (As
EFFEV Image: Stand Argencies TCLP Semi Volatiles Or Specify Method No. Image: Stand Argencies Image: Stand Argencies
And Anion/Cation Balance

	elinquished by:	elinquished by	June of									(LAB USE)	LAB #		Comments:	Heceiving Labor	Invoice to:	Project Location (county, state)	Project Name:	Client Name:	5
			Capala		PH #13 (0-6")	AH#12 (0-6")	AH # 11 (0~6")	AH #10 (0-6")	PH#9 (0.6")	H#8 (0.6")	AH#7 (0-6")		S			atory: Xenco	COG - I	Eddy Co	Big Pap	Concho	Ţ
	Date:	Date:	2/12/20										MPLE IDENTIFICATI				ke Tavarez	o, NM	py Fed Com 2H		etra Tec
	Time:	Time:	1312 1315										N						(7.12.19)		ch, Inc.
	Received by:	Received by:	Hecewey by:	-116/62	02/21/2	2/22/20	2/12/20	2/12/20	2/12/20	2/12/20	2/12/2020	DATE	YEAR: 2020	SAMPLIN		Sampler Signatur		Project #:		Site Manager:	
			L									TIME WATE	R	a M		e:				Mi	
	Date:	Date:	2/m/	>		×	×	X	×	×	×	SOIL HCL		ATRIX		Conner M		212C-MD		ke Carmo	901W Wall S Midland,Te Tel (432) Fax (432)
	Time:	Time:		>	< ×	×	×	×	×	X	×	HNO ₃ ICE None		PRESERVATIVE		loehring		-01855		na	treet, Ste 100 exas 79705 682-4559 682-3946
			315	-	-	-	-	1	1	1	1 1	# CONT	AINI	ERS							
	()	Sample	F	2	5 2	Z	2	2	Z	2		FILTER BTEX 8	ED (021E	Y/N) BTE	X 8260B						
	N.	Temperatu	AB USE									TPH 80 PAH 82	15M 70C	(GRO -	DRO - C	RO - I	MRO)			5	
Г			REM									TCLP M	etals platile	Ag As E s	a Cd Cr P	Pb Se	Hg			AN	
operia	_ Rush C	RUSH	ARKS:									RCI GC/MS	vol.	olatiles 8260B /	624					IALYSIS	
	harges Au Renort Li	Same D	ANDAR									GC/MS PCB's 8 NORM	Semi 082 /	Vol. 82 608	270C/625					REQU	
IIIIS OF FIN	Ithorized	ay 24 hr	D	×		X	×	X	X	×	×	PLM (As Chloride Chloride	besto	os) ulfate	TDS					EST	
nr neput	3P Report	48 hr 72										General Anion/C	Wat	er Chen Balanc	nistry (se e	e atta	ched lis	st)		2	
		2 hr			-		_	-	_				_								

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland	Acceptable Temperature Range: 0 - 6 deqC							
Date/ Time Received: 02.12.2020 01.15.00 PM	Air and Metal samples Acceptable Range: Ambie Temperature Measuring device used : T-NM-007							
Work Order #: 652156								
Sample Rec	eipt Checklist	Comments						
#1 *Temperature of cooler(s)?	3.2							
#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
Checklist reviewed by: Jessica Warmer

Date: 02.12.2020

Jessica Kramer

Date: 02.12.2020



Analytical Report 660477

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Big Papi Federal Com #2H (7.12.19)

212C-MD-01855

05.07.2020

Collected By: Client



1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) 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 (T104704534-19-5) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483)



212C-MD-01855

Eddy County, NM

Mike Carmona



Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 660477

Tetra Tech- Midland, Midland, TX

Project Name: Big Papi Federal Com #2H (7.12.19)

Date Received in Lab: Mon 05.04.2020 10:24 **Report Date:** 05.07.2020 12:24 Project Manager: Jessica Kramer

Lab Id: 660477-001 660477-002 660477-003 660477-004 660477-005 660477-006 Field Id: AH-2 (0'-1') AH-2 (1'-1.5') AH-3 (0'-1') AH-4 (0'-1') AH-4 (1'-1.5') AH-4 (1.5'-2') Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Sampled: 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 Chloride by EPA 300 05.04.2020 16:55 05.04.2020 16:55 05.04.2020 16:55 05.04.2020 16:55 05.05.2020 12:00 05.05.2020 12:00 Extracted: Analyzed: 05.05.2020 02:07 05.05.2020 02:14 05.05.2020 02:21 05.05.2020 02:28 05.05.2020 13:33 05.05.2020 14:00 mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg Units/RL: 1850 24.9 280 4.98 18.5 4.99 54.2 5.00 149 4.97 335 Chloride

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

Jession Vramer

Jessica Kramer Project Manager

Page 120 of 220

RL



212C-MD-01855

Eddy County, NM

Mike Carmona



Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 660477

Tetra Tech- Midland, Midland, TX

Project Name: Big Papi Federal Com #2H (7.12.19)

 Date Received in Lab:
 Mon 05.04.2020 10:24

 Report Date:
 05.07.2020 12:24

 Project Manager:
 Jessica Kramer

Lab Id: 660477-007 660477-008 660477-009 660477-010 660477-011 660477-012 Field Id: AH-5 (0'-1') AH-5 (1'-1.5') AH-5 (2'-2.5') AH-6 (0'-1') AH-7 (0-6") AH-8 (0-6") Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Sampled: 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 Chloride by EPA 300 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 Extracted: Analyzed: 05.05.2020 14:06 05.05.2020 14:11 05.05.2020 14:16 05.05.2020 14:40 05.05.2020 14:45 05.05.2020 14:50 mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL Units/RL: 902 5.01 1250 5.04 7770 50.3 977 25.0 28.3 5.00 25.8 4.98 Chloride

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

Jession Vramer

Jessica Kramer Project Manager

Page 121 of 220

Page 2 of 29



212C-MD-01855

Eddy County, NM

Mike Carmona



Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 660477

Tetra Tech- Midland, Midland, TX

Project Name: Big Papi Federal Com #2H (7.12.19)

 Date Received in Lab:
 Mon 05.04.2020 10:24

 Report Date:
 05.07.2020 12:24

 Project Manager:
 Jessica Kramer

Lab Id: 660477-013 660477-014 660477-015 660477-016 660477-017 660477-018 Field Id: AH-9 (0-6") AH-10 (0-6") AH-11 (0-6") AH-12 (0-6") AH-13 (0-6") AH-14 (0-6") Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Sampled: 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 Chloride by EPA 300 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 Extracted: Analyzed: 05.05.2020 14:55 05.05.2020 15:01 05.05.2020 15:22 05.05.2020 15:06 05.05.2020 15:27 05.05.2020 15:43 mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL Units/RL: 37.5 5.01 382 5.02 277 4.96 23.6 5.03 12.7 4.99 41.1 4.95 Chloride

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

Jession Vramer

Jessica Kramer Project Manager

Page 122 of 220



05.07.2020

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: XENCO Report No(s): **660477 Big Papi Federal Com #2H (7.12.19)** Project Address: Eddy County, 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) 660477. 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. 660477 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,

fession kenner

Jessica Kramer Project Manager

A Small Business and Minority Company

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

Page 5 of 29



Sample Id

AH-2 (0'-1')
AH-2 (1'-1.5')
AH-3 (0'-1')
AH-4 (0'-1')
AH-4 (1'-1.5')
AH-4 (1.5'-2')
AH-5 (0'-1')
AH-5 (1'-1.5')
AH-5 (2'-2.5')
AH-6 (0'-1')
AH-7 (0-6")
AH-8 (0-6")
AH-9 (0-6")
AH-10 (0-6")
AH-11 (0-6")
AH-12 (0-6")
AH-13 (0-6")
AH-14 (0-6")

Sample Cross Reference 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	05.01.2020 00:00		660477-001
S	05.01.2020 00:00		660477-002
S	05.01.2020 00:00		660477-003
S	05.01.2020 00:00		660477-004
S	05.01.2020 00:00		660477-005
S	05.01.2020 00:00		660477-006
S	05.01.2020 00:00		660477-007
S	05.01.2020 00:00		660477-008
S	05.01.2020 00:00		660477-009
S	05.01.2020 00:00		660477-010
S	05.01.2020 00:00		660477-011
S	05.01.2020 00:00		660477-012
S	05.01.2020 00:00		660477-013
S	05.01.2020 00:00		660477-014
S	05.01.2020 00:00		660477-015
S	05.01.2020 00:00		660477-016
S	05.01.2020 00:00		660477-017
S	05.01.2020 00:00		660477-018



CASE NARRATIVE

Client Name: Tetra Tech- Midland Project Name: Big Papi Federal Com #2H (7.12.19)

Project ID: 212C-MD-01855 Work Order Number(s): 660477
 Report Date:
 05.07.2020

 Date Received:
 05.04.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-2 (0'-1')		Matrix:	Soil		Date Received	1:05.04	4.2020 10:	24
Lab Sample I	d: 660477-001		Date Coll	lected: 05.01.2020 00:00)				
Analytical Me	ethod: Chloride by EPA	300				Prep Method:	E300	P	
Tech:	SPC					% Moisture:			
Analyst:	SPC		Date Prep	b: 05.04.2020 16:55	i	Basis:	Wet	Weight	
Seq Number:	3125066								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil
Chloride		16887-00-6	1850	24.9	mg/kg	05.05.2020 02	2:07		5

Released to Imaging: 3/15/2022 9:42:49 AM



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-2 (1'-1.5')		Matrix:	Soil		Date Received	1:05.04	.2020 10:	24
Lab Sample I	d: 660477-002		Date Col	lected: 05.01.2020 00:00)				
Analytical Me	ethod: Chloride by EPA	300				Prep Method:	E300	Р	
Tech:	SPC					% Moisture:			
Analyst:	SPC		Date Prep	p: 05.04.2020 16:55		Basis:	Wet V	Weight	
Seq Number:	3125066								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate	Flag	Dil
Chloride		16887-00-6	280	4.98	mg/kg	05.05.2020 0	2:14		1

Released to Imaging: 3/15/2022 9:42:49 AM



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

	10.	1.00						
s Number I	Result RI		Units	Analysis D	ate Fla	g Dil		
	Date Prep:	05.04.2020 16:55		Basis:	Wet Weig	ht		
				% Moisture:				
				Prep Method:	E300P			
	Date Collecte	Date Collected: 05.01.2020 00:00						
	Matrix:	Soil		Date Received	d:05.04.202	0 10:24		
		Matrix:	Matrix: Soil	Matrix: Soil	Matrix: Soil Date Received	Matrix: Soil Date Received:05.04.202		

16887-00-6 18.5

4.99

mg/kg 05.05.2020 02:21

1



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-4 (0'-1')		Matrix:		Soil		Date Received	1:05.04	.2020 10:2	24
Lab Sample Id: 660477-004			Date Colle	Date Collected: 05.01.2020 00:00						
Analytical Me Tech:	thod: Chloride by EPA 3	300					Prep Method: % Moisture:	E300	Р	
Analyst:	SPC		Date Prep	:	05.04.2020 16:55		Basis:	Wet	Weight	
Seq Number:	3125066									
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil

16887-00-6 **54.2**

5.00

mg/kg 05.05.2020 02:28



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-4 (1'-1.5')		Matrix:		Soil		Date Received	1:05.04	.2020 10:2	24
Lab Sample Id:	660477-005		Date Colle	ected:	05.01.2020 00:00					
Analytical Meth Tech: (Analyst: (Seq Number: 3	nod: Chloride by EPA 30 CHE CHE 3125116	00	Date Prep:	:	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300	P Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil

Chloride

16887-00-6 149

4.97

mg/kg 05.05.2020 13:33

Released to Imaging: 3/15/2022 9:42:49 AM



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-4 (1.5'-2')		Matrix:	Soil		Date Received	1:05.04.202	20 10:24	
Lab Sample I	d: 660477-006	Date Col	Date Collected: 05.01.2020 00:00						
Analytical Me	ethod: Chloride by EPA	300				Prep Method:	E300P		
Tech:	CHE					% Moisture:			
Analyst:	CHE		Date Prep	p: 05.05.2020 12:0	0	Basis:	Wet Weig	ght	
Seq Number:	3125116								
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Fla	ng Dil	
Chloride		16887-00-6	335	4.98	mg/kg	05.05.2020 14	4:00	1	

16887-00-6 335

4.98

mg/kg 05.05.2020 14:00



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-5 (0'-1')		Matrix:	Soil		Date Received	1:05.04.2020 1	0:24	
Lab Sample I	d: 660477-007	Date Col	Date Collected: 05.01.2020 00:00						
Analytical Me	ethod: Chloride by EPA	300				Prep Method:	E300P		
Tech:	CHE					% Moisture:			
Analyst:	CHE		Date Pre	p: 05.05.2020 1	2:00	Basis:	Wet Weight		
Seq Number:	3125116								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil	
Chloride		16887-00-6	902	5.01	mg/kg	05.05.2020 14	4:06	1	

Chloride

16887-00-6 902

5.01

mg/kg 05.05.2020 14:06



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-5 (1'-1.5')		Matrix:		Soil		Date Received	1:05.04	.2020 10:2	4
Lab Sample Id	: 660477-008		Date Colle	ected:	05.01.2020 00:00					
Analytical Me Tech: Analyst: Seq Number:	thod: Chloride by EPA 3 CHE CHE 3125116	00	Date Prep	:	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300	P Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil

Chloride

16887-00-6 1250

5.04

mg/kg 05.05.2020 14:11



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-5 (2'-2.5')		Matrix:	Soil		Date Received	1:05.04.2	020 10:2	4
Lab Sample Id	660477-009		Date Collec	ted: 05.01.2020 00:00					
Analytical Met Tech:	hod: Chloride by EPA 3 CHE	00				Prep Method: % Moisture:	E300P		
Analyst:	CHE		Date Prep:	05.05.2020 12:00		Basis:	Wet We	eight	
Seq Number:	3125116								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate I	Flag	Dil

Chloride

16887-00-6 7770

50.3

mg/kg 05.05.2020 14:16



5

Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id: AH-6 (0'-1')		Matrix:	Soil		Date Received	1:05.04.	2020 10:2	:4
Lab Sample Id: 660477-010		Date Collecte	d: 05.01.2020 00:00					
Analytical Method:Chloride by EPA 3Tech:CHEAnalyst:CHESeq Number:3125116	300	Date Prep:	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300P Wet W	Veight	
Parameter	Cas Number	Result RI		Units	Analysis Da	ate	Flag	Dil

16887-00-6 **977**

25.0

mg/kg 05.05.2020 14:40



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-7 (0-6'')		Matrix:		Soil		Date Received	1:05.04	4.2020 10:2	24
Lab Sample Id: 660477-011			Date Colle	Date Collected: 05.01.2020 00:00						
Analytical Me Tech: Analyst: Sea Number:	thod: Chloride by EPA 3 CHE CHE 3125116	:00	Date Prep	:	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300 Wet	P Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil

Chloride

28.3

16887-00-6

5.00

mg/kg 05.05.2020 14:45

1

Released to Imaging: 3/15/2022 9:42:49 AM



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id: AH-8 (0-6'')		Matrix:	Soil		Date Received	1:05.04.2	2020 10:2	24
Lab Sample Id: 660477-012		Date Collected	: 05.01.2020 00:00					
Analytical Method: Chloride by E Tech: CHE	PA 300				Prep Method: % Moisture:	E300P		
Analyst: CHE		Date Prep:	05.05.2020 12:00		Basis:	Wet W	eight	
Seq Number: 3125116								
Parameter	Cas Number	Result RL		Units	Analysis Da	ate	Flag	Dil

Chloride

16887-00-6 **25.8**

4.98

mg/kg 05.05.2020 14:50



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id: AH-9 (0-6'')		Matrix:	Soil		Date Received	1:05.04.20	20 10:24	
Lab Sample Id: 660477-013		Date Collecte	d: 05.01.2020 00:00					
Analytical Method: Chloride by EPA	300		05 05 0000 10 00		Prep Method: % Moisture:	E300P	· • • .	
Seq Number: 3125116		Date Prep:	05.05.2020 12:00		Basis:	wet wei	gnt	
Parameter	Cas Number	Result RI	_	Units	Analysis Da	ate Fl	ag Dil	

Chloride

16887-00-6 **37.5**

5.01

mg/kg 05.05.2020 14:55



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Tech:	CHE						% Moisture:			
Analyst:	CHE		Date Prep	p:	05.05.2020 12:00		Basis:	Wet	Weight	
Seq Number:	3125116									
Parameter		Cas Number	Result	RL		Units	Analysis D	ate	Flag	Dil
Chlorida		16997.00 6	202	E	n a		05 05 2020 1	5.01		1

16887-00-6 382

5.02

mg/kg 05.05.2020 15:01



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id: AH-11 (0-6'')		Matrix:	Soil		Date Received	:05.04.2020 1	0:24
Lab Sample Id: 660477-015		Date Collected	1:05.01.2020 00:00				
Analytical Method: Chloride by EPA 3 Tech: CHE Analyst: CHE	600	Date Pren:	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300P Wet Weight	
Seq Number: 3125116		Dute Hep.				6	
Parameter	Cas Number	Result RL		Units	Analysis Da	ite Flag	Dil

Chloride

16887-00-6 277

4.96

mg/kg 05.05.2020 15:22



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-12 (0-6")		Matrix:		Soil		Date Received	1:05.04	.2020 10:2	24
Lab Sample Id	l: 660477-016		Date Colle	ected	: 05.01.2020 00:00					
Analytical Me Tech: Analyst: Seq Number:	thod: Chloride by EPA 3 CHE CHE 3125116	00	Date Prep	÷	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300 Wet V	P Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil

16887-00-6 23.6

5.03

mg/kg 05.05.2020 15:06



1

Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id: AH-13 (0-6'')		Matrix:	Soil		Date Received	1:05.04.2020	0:24
Lab Sample Id: 660477-017		Date Collecte	ed: 05.01.2020 00:00				
Analytical Method:Chloride by EPA 3Tech:CHEAnalyst:CHESeq Number:3125116	300	Date Prep:	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300P Wet Weight	
Parameter	Cas Number	Result R	L	Units	Analysis Da	ate Flag	Dil

Chloride

16887-00-6 12.7

4.99

05.05.2020 15:27

mg/kg



Certificate of Analytical Results 660477

Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

Sample Id:	AH-14 (0-6'')		Matrix:		Soil		Date Received	1:05.04	.2020 10:2	24
Lab Sample Id	l: 660477-018		Date Colle	ected	: 05.01.2020 00:00					
Analytical Me Tech: Analyst: Seq Number:	thod: Chloride by EPA 3 CHE CHE 3125116	00	Date Prep	÷	05.05.2020 12:00		Prep Method: % Moisture: Basis:	E300 Wet V	P Weight	
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil

16887-00-6 **41.1**

4.95

mg/kg 05.05.2020 15:43

- **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 Det	ection Limit	LOD Limit of Detection	
PQL	Practical Quantitation Limit	MQL Method Qua	antitation Limit	LOQ Limit of Quantitation	n
DL	Method Detection Limit				
NC	Non-Calculable				
SMP	Client Sample		BLK	Method Blank	
BKS/I	LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	catory Control Sample Duplicate
MD/S	D Method Duplicate/Samp	le Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NE	ELAC certification not offered	for this compound.			

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


Tetra Tech- Midland

Big Papi Federal Com #2H (7.12.19)

Analytical Method: Seq Number:	Chloride by 3125066	EPA 30	0		Matrix:	Solid	DVC		Pr	Date Pr	od: E30 rep: 05.0	0P 04.2020	
MB Sample Id:	7702663-1-B	LK		LCS Sar	nple Id:	//02663-1	I-BKS		LCSI	J Sample	e Id: //0	2663-1-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	272	109	273	109	90-110	0	20	mg/kg	05.04.2020 23:09	
Analytical Method: Seq Number:	Chloride by 3125116	EPA 30	0		Matrix:	Solid			Pr	ep Meth Date Pr	od: E30 ep: 05.0	0P)5.2020	
MB Sample Id:	7702747-1-B	LK		LCS Sar	nple Id:	7702747-1	I-BKS		LCSI	O Sample	e Id: 770	2747-1-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	261	104	244	98	90-110	7	20	mg/kg	05.05.2020 13:15	
Analytical Method:	Chloride by	EPA 30	0						Pr	ep Meth	od: E30	0P	
Seq Number:	3125066			MS Sor	Matrix:	Soil	1 6		MSI	Date Pr	ep: 05.0	4.2020 467-001 SD	
Parent Sample Id:	000407-001	D (. .	MS Sal		000407-00	15	.	M DDD	Danipi	Unite	407-001 SD	
Parameter		Parent Result	Spike Amount	Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	Limit	Units	Date	Flag
Chloride		332	248	593	105	594	106	90-110	0	20	mg/kg	05.04.2020 23:30	
Analytical Method: Seq Number:	Chloride by 3125066	EPA 30	0		Matrix:	Soil			Pr	ep Meth Date Pr	od: E30 ep: 05.0	0P)4.2020	
Parent Sample Id:	660467-005			MS Sar	nple Id:	660467-00)5 S		MSI	D Sample	e Id: 660	467-005 SD	
Parameter]	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride		7.01	249	274	107	274	107	90-110	0	20	mg/kg	05.05.2020 01:06	
Analytical Method: Seq Number:	Chloride by 3125116	EPA 30	0		Matrix:	Soil			Pr	ep Meth Date Pr	od: E30 ep: 05.0	0P 05.2020	
Parent Sample Id:	660477-005			MS Sar	nple Id:	660477-00)5 S		MSI	D Sample	e Id: 660	477-005 SD	
_													
Parameter	I	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Parameter Chloride]	Parent Result 149	Spike Amount 249	MS Result 376	MS %Rec 91	MSD Result 380	MSD %Rec 93	Limits 90-110	%RPD 1	RPD Limit 20	Units mg/kg	Analysis Date 05.05.2020 13:42	Flag
Parameter Chloride Analytical Method: Seq Number: Parant Samala Idi	Chloride by 3125116	Parent Result 149 EPA 30	Spike Amount 249 0	MS Result 376	MS %Rec 91 Matrix:	MSD Result 380 Soil	MSD %Rec 93	Limits 90-110	%RPD 1 Pr	RPD Limit 20 ep Meth- Date Pr	Units mg/kg od: E30 rep: 05.0	Analysis Date 05.05.2020 13:42 0P 05.2020 477-016 SD	Flag
Parameter Chloride Analytical Method: Seq Number: Parent Sample Id:	Chloride by 3125116 660477-016	Parent Result 149 EPA 30	Spike Amount 249 0	MS Result 376 MS Sar	MS %Rec 91 Matrix: nple Id:	MSD Result 380 Soil 660477-02	MSD %Rec 93	Limits 90-110	%RPD 1 Pr MSI	RPD Limit 20 ep Meth Date Pr D Sample	Units mg/kg od: E30 rep: 05.0 e Id: 660	Analysis Date 05.05.2020 13:42 0P 05.2020 477-016 SD Analysis	Flag
Parameter Chloride Analytical Method: Seq Number: Parent Sample Id: Parameter	Chloride by 3125116 660477-016	Parent Result 149 EPA 30 Parent Result	Spike Amount 249 0 Spike Amount	MS Result 376 MS Sar MS Result	MS %Rec 91 Matrix: nple Id: MS %Rec	MSD Result 380 Soil 660477-02 MSD Result	MSD %Rec 93	Limits 90-110 Limits	%RPD 1 Pr MSI %RPD	RPD Limit 20 ep Meth Date Pr D Sample RPD Limit	Units mg/kg od: E30 ep: 05.0 e Id: 660 Units	Analysis Date 05.05.2020 13:42 0P 05.2020 477-016 SD Analysis Date	Flag Flag

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference $\begin{array}{l} [D] = 100*(C-A) \ / \ B \\ RPD = 200* \ | \ (C-E) \ / \ (C+E) \ | \\ [D] = 100*(C) \ / \ [B] \\ Log \ Diff. = Log(Sample \ Duplicate) \ - \ Log(Original \ Sample) \end{array}$

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

.

Page 27 of 29

vived by	00	<i>י</i> ש: ד	2/2	1/20 T	22 9:	0 <u>8</u> :	02	AN	[<u> </u>		T		T		Т				ß	T a	1 3	î P	13			ge 146 a
		elinquished b		elinquished b	mile	elinquished b											LAB USE ONLY	LAB #		omments:	ceiving Labor	voice to:	oject Locatior ounty, state)	oject Name:		A	nalysis Re
		Y:		× (×	AH-6	AH-5	AH-5	AH-5	AH-4	AH-4	AH-4	AH-3	AH-2	AH-2			· ;	1	atory:		Ä				quest
).	(0'-1')	(2'-2.5')	(1'-1.5')	(0'-1')	(1.5'-2')	(1'-1.5')	(0'-1')	(0'-1')	(1'-1.5')	(0'-1')		SAN			Xenco	COG - Att	Eddy Cou	Big Papi F	cog	Te	of Chain of C
		Date:		Date:	- 5/4/202	Date:												IPLE IDENTIFICA				n: Ike Tavarez	nty, NM	ederal Com #2		tra Te	ustody Record
		Time:		Time:	1024	Time:												TION						2H (7.12.19)		ch, Inc.	0
ORIGINAI		Received by		Received by	J.S.	Received, by	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	DATE	YEAR:	SAMP		Sampler Sign		Project #:		Site Manager:		
г сору					C	<u> </u>											тіме		LING		ature:						
					7		×	×	×	×	×	×	×	×	×	×	WATEI SOIL	7	MATRIX		Carlo		2120		Mike Ca	4000 N. 401 P Te Fa	
		Date:		Date:	4/6	Date:									<u> </u>		HCL		С Р		os Ton		D-MD-(armona	. Big Sprin Midland, Te 3I (432) 68 1x (432) 68	6
		Time		Time	6	Time	×	×	×	×	×	×	×	×	×	×			RESERVAT		linson)1855		<u> </u>	g Street, St xas 79705 2-4559 2-3946	Ŏ
		5:		9.	/G														ĪVĒ		/Tony					ō	ト
144.1					2				-1 Z	N L	- N	1 N	1 Z	-1 Z	<u>-1</u> Z	1 N	# CONT	AINE	RS		Legarc						J
Q	2013 - 1 1 8	<u>.</u>	12	Sar													FILTERI	ED (Y 021B	/N) BTE	X 8260E	<u>а</u>						
cle) HAĮ			2	nple Terr	ON												TPH TX TPH 80 ⁻	1005 15M ((Ext to GRO ·	C35) - DRO - C)RO -	MRO)		,			
AD DEL	\$	2 : :	c^{2}	nperatur	L< USE												PAH 82 Total Me	70C tals A	lg As B	a Cd Cr I	Pb Se	Hg					
VERE						R											TCLP Me TCLP Vo	etals /	Ag As E s	3a Cd Cr	Pb Se	Hg			A A		
0 FED	Ę		B		s X	MARK									[TCLP Se RCI	emi Vo	olatiles	-				ç	IALY:		
ĒX	Jecia		Jsh Ct	JSH:	tanda	ŝ											GC/MS	/ol. 8 Semi	260B /	624 270C/625	5				SIS F		
Sdf	iodau		harges	Same	ard	E											PCB's 8	082 /	608	2100/020	, 				REQ		
Trackin			Autho	9 Day		┝	+	-+									NORM PLM (As	besto	s)					— í	JEST		Ра
g #:			orized	24 hi			< >	×	×	×	×	×	×	×	×	×	Chloride Chloride	Si	ulfate	TDS			,		2		ģe
	ה שמה			r 48 I		F											General	Wate	er Cher	nistry (se	e atta	ched lis	st)		-		
	-tuoday			hr 72		E											Anion/Ca	ation	balanc	e							<u></u>
				? hr		F																					으 <u>.</u>
					10.000	F				-	-+						Hold										N

ived by O	cD:	2/21/	20	22.9:	08	·02	<u>4 M</u>					.	- T											Pa	ge 147 d
	relinquished by		telinquished by	Mui	Relinquished by										(LAB USE ONLY)	LAB #		Comments:		Invoice to:	Project Location (county, state)	Project Name:			Analysis Re
				he (in	 2			AH-13 (0-6")	AH-12 (0-6")	AH-11 (0-6")	AH-10 (0-6")	AH-9 (0-6")	AH-8 (0-6")	AH-7 (0-6")		SAMF			Xenco	COG - Attr	Eddy Coun	Big Papi Fe	cog	Tet	quest of Chain of Cu
	Date: Time:		Date: Time:	SH12020 1024	Date: Time:											² LE IDENTIFICATION				: Ike Tavarez	ty, NM	ederal Com #2H (7.12.19)		tra Tech, Inc.	stody Record
ORIGINAL CC	Received by:		Received by:	AN I	Received by:			5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	5/1/2020	DATE	YEAR:	SAMPLING		Sampler Signature:		Project #:		Site Manager:	•	
γq	De		De	\sim				×	×	×	×	×	×	×	TIME WATEF SOIL	<u>م</u>	MATRIX		Carlos		212C-N		Mike Carm	4000 N. Big 401 Midia Tel (43 Fax (43	
	ate: Time:		até: Time:	82	ate: Time:			×	×	×	×	×	×	×	HCL HNO₃ ICE		PRESERVATIVE METHOD		Tomlinson/Tony		ND-01855		nona	Spring Street, Ste and, Texas 79705 32) 682-4559 32) 682-3946	Jolu
(Circ)	,	samp 2		/ad				Z	Z	1 Z	1 N	1 N	1 N	N L	# CONT	AINE D (Y 21B	RS (N) BTE	X 8260B	Legarda						CLHO
HAND DELLY ERE	0,00	2 1 a		ONLY				,							TPH 801 PAH 827 Total Met TCLP Me TCLP Vo	5M (OC als A tals A latiles	GRO - g As Ba g As B	DRO - O a Cd Cr P Ba Cd Cr I	RO - I Pb Se I Pb Se	MRO) Hg Hg			AI		
D FEDEX UPS	Snecial Renor	Bush Charges	RUSH: Same	X Standard	MARKS:										TCLP Ser RCI GC/MS V GC/MS S PCB's 80	mi Vo ol. 8: emi. \)82 / (latiles 260B / Vol. 82	624 270C/625					VALYSIS REQU		
Tracking #:	Limits or TBBD Pa	Authorized	Day 24 hr 48 h					×	×	×	X	×	×	×	NORM PLM (Ast Chloride Chloride General V	Su Su Wate	i) Ifate r Chem	TDS nistry (se	e atta	ched lis	t)		JEST		Page
cport	enor		זר 72 hr												Anion/Ca	uon E	baianc	e							2 of

•

eurofins Environment Testing Xenco

Analytical Report 670700

Page 148 of 220

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Big Pappy Fed Com 2H (7.12.19)

212C-MD-01855

08.24.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins Environment Testing

Project Id:

Project Location:

Contact:

Xenco

212C-MD-01855 Mike Carmona

Eddy County, NM

Certificate of Analysis Summary 670700

Tetra Tech- Midland, Midland, TX

Project Name: Big Pappy Fed Com 2H (7.12.19)

Date Received in Lab: Fri 08.21.2020 10:55 Report Date: 08.24.2020 08:14 Project Manager: Jessica Kramer

									J				
	Lab Id:	670700-00)1	670700-00	02	670700-00	03	670700-0	04	670700-0	05	670700-0	06
Analysis Requested	Field Id:	AH #4 (0-1	')	AH #4 (-1.	5')	AH #4 (1.5-2	2')	AH #5 (0-1	')	AH #5 (1-1.	5')	AH #5 (2-2.	5')
Analysis Kequestea	Depth:	0-1 ft		1-1.5 ft		1.5-2 ft		0-1 ft		1-1.5 ft		2-2.5 ft	t
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.19.2020 0	0:00	08.19.2020 (00:00	08.19.2020 (00:00	08.19.2020	00:00	08.19.2020	00:00	08.19.2020	00:00
Inorganic Anions by EPA 300/300.1	Extracted:	08.21.2020 1	3:00	08.21.2020	3:00	08.21.2020 1	13:00	08.21.2020	13:00	08.21.2020	13:00	08.21.2020	13:00
	Analyzed:	08.21.2020 1	5:35	08.21.2020	5:41	08.21.2020 1	15:57	08.21.2020	16:03	08.21.2020	16:20	08.21.2020	16:25
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3030	50.1	5010	49.7	3150	49.9	1930	49.9	1670	50.1	1630	50.2

BRL - Below Reporting Limit

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

Jession Vramer

Page 1 of 28

eurofins Environment Testing

Project Location:

Project Id:

Contact:

Xenco

212C-MD-01855

Eddy County, NM

Mike Carmona

Certificate of Analysis Summary 670700

Tetra Tech- Midland, Midland, TX

Project Name: Big Pappy Fed Com 2H (7.12.19)

Date Received in Lab: Fri 08.21.2020 10:55

Report Date: 08.24.2020 08:14

Project Manager: Jessica Kramer

	Lab Id:	670700-0	007	670700-00)8	670700-00	09	670700-0)10	670700-0	11	670700-0	012
Analysis Reauested	Field Id:	AH #6 (0-	-1')	AH #9 (0-0	.5')	AH #11 (0-0.	.5')	South 1 Side	wall	Bottom Hole #1	(0-1')	Bottom Hole #1	(1-1.5)
Anulysis Requesieu	Depth:	0-1 ft		0-0.5 ft		0-0.5 ft		0-0 ft		0-1 ft		1-1.5 f	t
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.19.2020	00:00	08.19.2020 0	00:00	08.19.2020 0	00:00	08.19.2020	00:00	08.19.2020	00:00	08.19.2020	00:00
Inorganic Anions by EPA 300/300.1	Extracted:	08.21.2020	13:00					08.21.2020	13:00	08.21.2020	13:00	08.21.2020	13:00
	Analyzed:	08.21.2020	16:31					08.21.2020	16:36	08.21.2020	16:42	08.21.2020	16:48
	Units/RL:	mg/kg	RL					mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		622	10.0					130	9.98	122	9.94	219	9.90
TPH By SW8015 Mod	Extracted:			08.21.2020 1	3:00	08.21.2020 1	13:00						
	Analyzed:			08.21.2020 1	4:17	08.21.2020 1	15:18						
	Units/RL:			mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)				<50.0	50.0	<50.0	50.0						
Diesel Range Organics (DRO)				<50.0	50.0	<50.0	50.0						
Motor Oil Range Hydrocarbons (MRO)				<50.0	50.0	<50.0	50.0						
Total TPH				<50.0	50.0	<50.0	50.0						

BRL - Below Reporting Limit

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

Jession Vramer

eurofins Environment Testing

Project Id:

Project Location:

Contact:

Xenco

212C-MD-01855

Eddy County, NM

Mike Carmona

Certificate of Analysis Summary 670700

Tetra Tech- Midland, Midland, TX

Project Name: Big Pappy Fed Com 2H (7.12.19)

Date Received in Lab: Fri 08.21.2020 10:55

Report Date: 08.24.2020 08:14

Project Manager: Jessica Kramer

	Lab Id:	670700-01	3	670700-01	14	670700-01	5		
Analysis Poguestad	Field Id:	Bottom Hole #1 (2	2-2.5')	Bottom Hole #1	(3-3.5')	Bottom Hole #1 (3	3.5-4')		
Analysis Kequestea	Depth:	2-2.5 ft		3-3.5 ft		3.5-4 ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	08.19.2020 0	0:00	08.19.2020 0	00:00	08.19.2020 0	0:00		
Inorganic Anions by EPA 300/300.1	Extracted:	08.21.2020 13	3:00	08.21.2020 1	6:20	08.21.2020 1	6:20		
	Analyzed:	08.21.2020 1	5:53	08.21.2020 1	7:27	08.21.2020 1	7:43		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		35.1	10.1	33.4	9.94	<10.0	10.0		

BRL - Below Reporting Limit

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

Jession Vramer

Page 3 of 28

eurofins Environment Testing Xenco

08.24.2020

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): 670700 Big Pappy Fed Com 2H (7.12.19) Project Address: Eddy County, 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 Eurofins Xenco, LLC Report Number(s) 670700. 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. 670700 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,

fession kenner

Jessica Kramer Project Manager

A Small Business and Minority Company

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

eurofins Environment Testing Xenco

Sample Id

AH #4 (0-1') AH #4 (-1.5') AH #4 (1.5-2') AH #5 (0-1') AH #5 (1-1.5') AH #5 (2-2.5') AH #6 (0-1') AH #9 (0-0.5') AH #11 (0-0.5') South 1 Sidewall Bottom Hole #1 (0-1') Bottom Hole #1 (1-1.5) Bottom Hole #1 (2-2.5') Bottom Hole #1 (3-3.5') Bottom Hole #1 (3.5-4')

Sample Cross Reference 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	08.19.2020 00:00	0 - 1 ft	670700-001
S	08.19.2020 00:00	1 - 1.5 ft	670700-002
S	08.19.2020 00:00	1.5 - 2 ft	670700-003
S	08.19.2020 00:00	0 - 1 ft	670700-004
S	08.19.2020 00:00	1 - 1.5 ft	670700-005
S	08.19.2020 00:00	2 - 2.5 ft	670700-006
S	08.19.2020 00:00	0 - 1 ft	670700-007
S	08.19.2020 00:00	0 - 0.5 ft	670700-008
S	08.19.2020 00:00	0 - 0.5 ft	670700-009
S	08.19.2020 00:00	0 - 0 ft	670700-010
S	08.19.2020 00:00	0 - 1 ft	670700-011
S	08.19.2020 00:00	1 - 1.5 ft	670700-012
S	08.19.2020 00:00	2 - 2.5 ft	670700-013
S	08.19.2020 00:00	3 - 3.5 ft	670700-014
S	08.19.2020 00:00	3.5 - 4 ft	670700-015

Environment Testing Xenco

CASE NARRATIVE

Client Name: Tetra Tech- Midland Project Name: Big Pappy Fed Com 2H (7.12.19)

Project ID: 212C-MD-01855 Work Order Number(s): 670700
 Report Date:
 08.24.2020

 Date Received:
 08.21.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #4 (0-1')		Matrix:	So	bil		Date Received	1:08.21.	2020 10:5	55
Lab Sample Io	l: 670700-001		Date Colle	ected: 08	8.19.2020 00:00		Sample Depth	:0-1f	t	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1					Prep Method:	E300F)	
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Prep	: 08	3.21.2020 13:00		Basis:	Wet W	Veight	
Seq Number:	3135303									
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil
Chloride		16887-00-6	3030	50.1		mg/kg	08.21.2020 15	5:35		5

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #4 (-1.5')		Matrix:		Soil		Date Received	1:08.21	.2020 10::	55
Lab Sample Io	l: 670700-002		Date Colle	ected:	08.19.2020 00:00		Sample Depth	:1 - 1.:	5 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1					Prep Method:	E300	Р	
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Prep	:	08.21.2020 13:00		Basis:	Wet V	Veight	
Seq Number:	3135303									
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil
Chloride		16887-00-6	5010	49.	7	mg/kg	08.21.2020 1	5:41		5

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #4 (1.5-2')		Matrix:	So	oil		Date Received	1:08.21.20	020 10:5	55
Lab Sample Io	l: 670700-003		Date Coll	ected: 08	3.19.2020 00:00		Sample Depth	: 1.5 - 2 ft	t	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1					Prep Method:	E300P		
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Prep	o: 08	3.21.2020 13:00		Basis:	Wet We	ight	
Seq Number:	3135303									
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate F	lag	Dil
Chloride		16887-00-6	3150	49.9		mg/kg	08.21.2020 15	5:57		5

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #5 (0-1')		Matrix:	Soil		Date Received	1:08.21.2020 1	0:55
Lab Sample Io	l: 670700-004		Date Coll	ected: 08.19.2020 00:0	00	Sample Depth	:0 - 1 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	: 08.21.2020 13:0	00	Basis:	Wet Weight	
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Flag	Dil
Chloride		16887-00-6	1930	49.9	mg/kg	08.21.2020 1	6:03	5

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #5 (1-1.5')		Matrix:	Soil		Date Received	1:08.21.20	20 10:55
Lab Sample Io	l: 670700-005		Date Coll	ected: 08.19.2020 00:00)	Sample Depth	: 1 - 1.5 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	: 08.21.2020 13:00)	Basis:	Wet Wei	ght
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Fl	ag Dil
Chloride		16887-00-6	1670	50.1	mg/kg	08.21.2020 1	6:20	5

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #5 (2-2.5')		Matrix:	Soil		Date Received	1:08.21.2020	10:55
Lab Sample Io	l: 670700-006		Date Coll	ected: 08.19.2020 00:00)	Sample Depth	: 2 - 2.5 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	: 08.21.2020 13:00)	Basis:	Wet Weight	
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Flag	Dil
Chloride		16887-00-6	1630	50.2	mg/kg	08.21.2020 1	6:25	5

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #6 (0-1')		Matrix:	Soil		Date Received	1:08.21.2020 10):55
Lab Sample Io	l: 670700-007		Date Coll	ected: 08.19.2020 00	:00	Sample Depth	:0-1 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	: 08.21.2020 13	:00	Basis:	Wet Weight	
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Flag	Dil
Chloride		16887-00-6	622	10.0	mg/kg	08.21.2020 1	5:31	1

eurofins Environment Testing Xenco

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #9 (0-0.5')		Matrix:	Soil		Date Received	:08.21	.2020 10:5:	5
Lab Sample Id: 670700-008			Date Collected: 08.19.2020 00:00			Sample Depth: 0 - 0.5 ft			
Analytical Meth Tech:	hod: TPH By SW8015 M DTH	ſod				Prep Method: % Moisture:	SW80)15P	
Analyst:	DTH		Date Prep:	08.21.2020 13:00		Basis:	Wet V	Veight	
Seq Number:	3135293								
Parameter		Cas Number	Result RI		Units	Analysis Da	ite	Flag	Dil

			112		Cinto	Thaysis Dute	1 1.45	DI	
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	08.21.2020 14:17	U	1	_
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0		mg/kg	08.21.2020 14:17	U	1	
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0		mg/kg	08.21.2020 14:17	U	1	
Total TPH	PHC635	<50.0	50.0		mg/kg	08.21.2020 14:17	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	92	%	70-135	08.21.2020 14:17			
o-Terphenyl		84-15-1	90	%	70-135	08.21.2020 14:17			

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	AH #11 (0-0.5')		Matrix:	Soil		Date Received	1:08.21.2	2020 10:5	5
Lab Sample Id: 6		Date Collected: 08.19.2020 00:00			Sample Depth: 0 - 0.5 ft				
Analytical Metho Tech: D	od: TPH By SW8015 M OTH	lod				Prep Method: % Moisture:	SW801	5P	
Analyst: D Seq Number: 3	ОТН 135293		Date Prep:	08.21.2020 13:00		Basis:	Wet W	eight	
Parameter		Cas Number	Result F	L	Units	Analysis Da	ate 1	Flag	Dil

1 urumeter	Cus rumbe	1 100000	NL		Onits	Analysis Date	Tiag	Di
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	08.21.2020 15:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0		mg/kg	08.21.2020 15:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0		mg/kg	08.21.2020 15:18	U	1
Total TPH	PHC635	<50.0	50.0		mg/kg	08.21.2020 15:18	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	08.21.2020 15:18		
o-Terphenyl		84-15-1	90	%	70-135	08.21.2020 15:18		

eurofins Environment Testing Xenco

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	South 1 Sidewall		Matrix:	Soil		Date Received	1:08.21.2020	10:55
Lab Sample Io	l: 670700-010		Date Colle	ected: 08.19.2020 00:00)	Sample Depth	:0-0 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	08.21.2020 13:00)	Basis:	Wet Weight	
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis D	ate Flag	Dil
Chloride		16887-00-6	130	9.98	mg/kg	08.21.2020 1	6:36	1

Xenco

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	Bottom Hole #1 (0-1')		Matrix:		Soil		Date Received	1:08.2	1.2020 10:	55
Lab Sample Io	l: 670700-011		Date Coll	ected:	08.19.2020 00:00		Sample Depth	:0-1	ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1					Prep Method:	E300)P	
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Prep):	08.21.2020 13:00		Basis:	Wet	Weight	
Seq Number:	3135303									
Parameter		Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil
Chloride		16887-00-6	122	9.9	94	mg/kg	08.21.2020 10	5:42		1

eurofins Environment Testing Xenco

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	Bottom Hole #1 (1-1.5	5)	Matrix:	Soil		Date Received	1:08.21.2020	10:55
Lab Sample Io	l: 670700-012		Date Colle	ected: 08.19.2020 00:00)	Sample Depth: 1 - 1.5 ft		
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	: 08.21.2020 13:00)	Basis:	Wet Weight	
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil
Chloride		16887-00-6	219	9.90	mg/kg	08.21.2020 10	6:48	1

eurofins Environment Testing Xenco

Certificate of Analytical Results 670700

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	Bottom Hole #1 (2-2.5	5')	Matrix:	Soil		Date Received	1:08.21.2020	10:55
Lab Sample Io	l: 670700-013		Date Colle	ected: 08.19.2020 00:00)	Sample Depth	: 2 - 2.5 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MAB					% Moisture:		
Analyst:	MAB		Date Prep	: 08.21.2020 13:00)	Basis:	Wet Weigh	t
Seq Number:	3135303							
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate Flag	Dil
Chloride		16887-00-6	35.1	10.1	mg/kg	08.21.2020 10	6:53	1

Environment Testin Xenco

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	Bottom Hole #1 (3-3.5	5')	Matrix:		Soil		Date Received	1:08.2	1.2020 10:	55
Lab Sample Io	l: 670700-014		Date Coll	ected	08.19.2020 00:00		Sample Depth	n: 3 - 3	.5 ft	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1					Prep Method:	E300	OP	
Tech:	MAB						% Moisture:			
Analyst:	MAB		Date Prep	:	08.21.2020 16:20		Basis:	Wet	Weight	
Seq Number:	3135304									
Parameter		Cas Number	Result	RL		Units	Analysis D	ate	Flag	Dil
Chloride		16887-00-6	33.4	9.	94	mg/kg	08.21.2020 17	7:27		1

Xenco

Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

Sample Id:	Bottom Hole #1 (3.5-4	i')	Matrix:	Soil		Date Received	1:08.21.20	020 10:5	55
Lab Sample Io	l: 670700-015		Date Colle	ected: 08.19.2020 00:00		Sample Depth	: 3.5 - 4 ft	t	
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P		
Tech:	MAB					% Moisture:			
Analyst:	MAB		Date Prep	: 08.21.2020 16:20		Basis:	Wet We	ight	
Seq Number:	3135304								
Parameter		Cas Number	Result	RL	Units	Analysis Da	ate F	lag	Dil
Chloride		16887-00-6	<10.0	10.0	mg/kg	08.21.2020 17	7:43	U	1

Environment Testing Xenco

- 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 Det	ection Limit	LOD Limit of Detection	
PQL	Practical Quantitation Limit	MQL Method Qua	antitation Limit	LOQ Limit of Quantitation	n
DL	Method Detection Limit				
NC	Non-Calculable				
SMP	Client Sample		BLK	Method Blank	
BKS/I	LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	catory Control Sample Duplicate
MD/S	D Method Duplicate/Sampl	le Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NE	LAC certification not offered	for this compound.			

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

eurofins Environment Testing Xenco

QC Summary 670700

Tetra Tech- Midland

Big Pappy Fed Com 2H (7.12.19)

Analytical Method: Sea Number:	Inorganic Anior	ns by EPA 30	00/300.1	Matrix:	Solid			Pı	ep Metho Date Pr	od: E30 ep: 08.2	00P 21,2020	
MB Sample Id:	7709983-1-BLK		LCS Sa	mple Id:	7709983-	1-BKS		LCS	D Sample	e Id: 770	9983-1-BSD	
Parameter	N Res	IB Spike ult Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<1	0.0 250	263	105	266	106	90-110	1	20	mg/kg	08.21.2020 14:11	
Analytical Method:	Inorganic Anior	ns by EPA 30	00/300.1					Pı	ep Metho	od: E30	00P	
Seq Number:	3135304		I GG G	Matrix:	Solid			T GG	Date Pr	ep: 08.2	21.2020	
MB Sample Id:	7709984-1-BLK		LCS Sa	mple Id:	7709984-	I-BKS		LCS	D Sample	e Id: 770	99984-1-BSD	
Parameter	N Res	IB Spike ult Amount	E LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<1	0.0 250) 263	105	266	106	90-110	1	20	mg/kg	08.21.2020 17:15	
Analytical Method:	Inorganic Anior	ns by EPA 30	00/300.1					Pı	ep Metho	od: E30	00P	
Seq Number:	3135303			Matrix:	Soil				Date Pr	ep: 08.2	21.2020	
Parent Sample Id:	670695-001		MS Sa	mple Id:	670695-0	01 S		MS	D Sample	e Id: 670	695-001 SD	
Parameter	Pare	nt Spike ult Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	176	200) 17800	100	17800	101	90-110	0	20	mg/kg	08.21.2020 14:28	
Analytical Method:	Inorganic Anior	ns by EPA 30	00/300.1					Pı	ep Metho	od: E30	00P	
Seq Number:	3135303			Matrix:	Soil				Date Pr	ep: 08.2	21.2020	
Parent Sample Id:	670700-002		MS Sa	mple Id:	670700-0	02 S		MS	D Sample	e Id: 670	700-002 SD	
Parameter	Pare Res	ent Spike ult Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	50	010 198	3 5210	101	5210	99	90-110	0	20	mg/kg	08.21.2020 15:46	
Analytical Method: Seq Number:	Inorganic Anior 3135304	ns by EPA 30	00/300.1	Matrix:	Soil			Pı	ep Methe Date Pr	od: E30 ep: 08.2	00P 21.2020	
Parent Sample Id:	670700-014		MS Sa	mple Id:	670700-0	14 S		MS	D Sample	e Id: 670	700-014 SD	
Parameter	Pare Res	ent Spike ult Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3	3.4 199	236	102	237	102	90-110	0	20	mg/kg	08.21.2020 17:32	

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference $\begin{array}{l} [D] = 100*(C-A) \ / \ B \\ RPD = 200* \ | \ (C-E) \ / \ (C+E) \ | \\ [D] = 100*(C) \ / \ [B] \\ Log \ Diff. = Log(Sample \ Duplicate) \ - \ Log(Original \ Sample) \end{array}$

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

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

.

Page 24 of 28

Xenco

Environment Testing

🔅 eurofins

QC Summary 670700

Tetra Tech- Midland

Big Pappy Fed Com 2H (7.12.19)

Analytical Method:	TPH By S	W8015 M	od						Pi	ep Metho	od: SW	8015P	
Seq Number:	3135293]	Matrix:	Solid				Date Pre	ep: 08.2	21.2020	
MB Sample Id:	7709972-1-	-BLK		LCS San	nple Id:	7709972-1	I-BKS		LCS	D Sample	Id: 770	9972-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	< 50.0	1000	929	93	956	96	70-135	3	35	mg/kg	08.21.2020 13:37	
Diesel Range Organics	(DRO)	<50.0	1000	977	98	1010	101	70-135	3	35	mg/kg	08.21.2020 13:37	
Surrogate		MB %Rec	MB Flag	L(%]	CS Rec	LCS Flag	LCSI %Re) LCS c Flag	D Li g	mits	Units	Analysis Date	
1-Chlorooctane		87		1	10		111		70	-135	%	08.21.2020 13:37	
o-Terphenyl		87		1	00		101		70	-135	%	08.21.2020 13:37	

Analytical Method: Seq Number:	TPH By SW8015 Mod 3135293	Matrix: MB Sample Id:	Solid 7709972-1-BLK	Prep Method: Date Prep:	SW3 08.2	8015P 11.2020	
Parameter		MB Result		τ	Jnits	Analysis Date	Flag
Motor Oil Range Hydrocarb	ons (MRO)	<50.0		m	ng/kg	08.21.2020 11:57	

Analytical Method:	TPH By SV	V8015 M	lod						Pı	ep Meth	od: SW	8015P			
Seq Number:	3135293				Matrix:	Soil		Date Prep: 08.21.2020							
Parent Sample Id:	670700-008	1		MS San	nple Id:	670700-00)8 S		MS	D Sample	e Id: 670	700-008 SD			
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag		
Gasoline Range Hydrocarbo	ons (GRO)	<50.0	1000	968	97	968	97	70-135	0	35	mg/kg	08.21.2020 14:37			
Diesel Range Organics (DRO)	< 50.0	1000	1010	101	1020	102	70-135	1	35	mg/kg	08.21.2020 14:37			
Surrogate				N %]	IS Rec	MS Flag	MSD %Re	o MSD c Flag) Li ç	mits	Units	Analysis Date			
1-Chlorooctane		120			119		70	70-135		08.21.2020 14:37					
o-Terphenyl				1	07		109		70	-135	%	08.21.2020 14:37			

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

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

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

.

Page 25 of 28

	ished by:		ished by:	lished by:		AH	AH			AL	2 2	~ 2	A	A	AB USE	LAB #			ments:	eiving Laborate	ice to:	lect Location:	ject Name:	ent Name:	4
	Date: Time:	Date: Time:	~ 8/11/20 1055	Date: Time:		#11 (0-0 5)	#0 (0-0 //) #0 (0-0 //)	#C (D 41)	#E (2) C EN	1 #C /4 4 C/	I#+ (1.3-2)			1#A (0-11)		SAMPLE IDENTIFICATION			Xenco	COG - Ike Taverez	Eddy Co, NM	Edd. Com 2H (7.12.19)	, , ,	COG	Tetra Tech Inc
	Received by:	Received by:	Clore Cuit	Received by:	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	DAT	re -	YEAR: 2020	SAMPLING		Sampler Signature:	Complex Di	TOJOCI #.	Project #		Site Manager:	
	Date: Time:	Date: Time:	Hon 8:21:20 10	Date: Time:	×	×	x	X	X	X	XX	XX	×	WA SOI HCL HNC ICE Non	E TER L D ₃ e	METHOD	MATRIX PRESERVATIVE		Conner Moehring		212C-MD-01855		Mike Carmona	Midland,Texas 79705 Tel (422) 682-4559 Fax (432) 682-3946	901W Wall Street, Ste 100
	1	Sam	55		1 N	1 N	1 N	1 N	1 N	-1 N	1 N	1 N	1 N	# CO FILTE BTEX	NTAII ERED 8021	NERS (Y/N) B B	BTEX	8260B							
	C.h/h	ole Temperature	ONLY		×	×							-	TPH TPH PAH Total I	TX100 B015M B2700 Metals Metals	05 (Ext 1 (GR ; Ag As	t to C: O - D s Ba (35) RO - O Cd Cr P	RO - M b Se Ho	RO)			5		
Special Report Limits	Rush Charges Author	X RUSH: Same Day	REMARKS:										F N	TCLP TCLP RCI BC/MS BC/MS PCB's NORM	Volatil Semi S Vol. S Sem 8082	es Volatile 8260E i. Vol. / 608	es B / 62 8270	4 0C/625	5 50 H	9		ie or specity Met	ANALYSIS REQUE	ما	
or TRRP Report	rized	24 hr 48 hr 72 hr					× >	< >	< >		< >	< >		LM (A hlorid hloric enera nion/(e le S al Wat Cation	os) Sulfate er Ch I Balar	e T[emist nce	DS try (see	attach	ed list)		thod No.)	EST	90 F O F	

South Fischwall South Sidewall South Sidewall South Sidewall South Sidewall Conde Noehning Conde Noehning <t< th=""><th>Internal Internal Internal</th><th>Tetra Tech, Inc. windowsky synthesize windowsky synthesize windowsky synthesize C// C// C// C// C// C// C// C// C// C//</th></t<>	Internal	Tetra Tech, Inc. windowsky synthesize windowsky synthesize windowsky synthesize C//
Image: Conner Monger: Integrations results to organize straining registrations results and a set of the period	Sample signature: Conner Moehring Conner Moehring Conner Moehring Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Conner Moehring Circle or Specify Method Image: Sample signature: Circle or Specify Method Circle or Specify Method Image: Sample signature: Image: Image: Image: Image: Image: Sample signature: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: Image: I	Simulations bits is (right above is (right abov
OTW Wall Street, So to "Indiand, Rease System Time: Mike Carmona Mike Carmona Mike Carmona 212C-MD-01855 212C-MD-01855 212C-MD-01855 212C-MD-01855 Conner Moehring Conner Moehring Conner Moehring NG MATRIX NG MATRIX PRESERVATIVE Conner Moehring Conner Moehring Corcle or Specific and Specific an	and an	Norware see, se ror Mike Carmona Mike Carmona Mike Carmona Conner Moehring Advance messaware Conner Moehring Conner Moehring Conner Moehring Conner Moehring Advance messaware Conner Moehring Co
Onmer Moehring AnALYS PRESERVATIVE Fax (423) 882 3946 Fix (42) 8846	Bit (dd) Reserves (dd) Reserv	Banked States Sen to welded ones 2019 and etail of the states of the
Circle or Spe Virile HAND DELIVERED FEDEX U Special II Special II Circle or Spe Circle or S	ANALYSIS RECUEST C:55 1 1	AMALYSIS REDUEST Circle or Specify Method No. AMALYSIS REDUEST AMALYSIS REDUEST Circle or Specify Method No. AMALYSIS REDUEST AMALYSIS REDUEST Circle or Specify Method No. AMALYSIS REDUEST AMALYSIS REDUEST Circle or Specify Method No. AMALYSIS REDUEST AMALYSIS REDUEST Circle or Specify Method No. AMALYSIS REDUEST Circle or Specify Method No. AMALYSIS REDUEST Circle or Specify Method No. Amalysis
Circle BTEX 8021B BTEX 8260B Image: Construction of the second secon	ANALYSIS REQUEST Circle of Specify Method Circle of Specify Method	AMALYSIS REQUEST Circle or Specify Method No. PAH 8270C ONLY IABUSE Sample Temperature FEDEX UPS Tracking #: Circle or Specify Method No. PAH 8270C Circle or Specify Method No. PAH 8270C TOtal Metals Ag As Ba Cd Cr Pb Se Hg TCLP Matals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles TCLP Semi Volatiles Circle or Specify Method No. PAH 8270C PAH 8270C Circle or Specify Method No. PAH 8270C PAH 8270C Circle or Specify Method No. PAH 8270C PAH 8270C Circle or Specify Method No. PAH 8270C PAH 8270C
REMARKS: TCLP Metals Ag As Ba Cd Cr Pb Se Hg Image: Special of the set of	TCLP Metals Ag As Ba Cd Cr Pb Se Hg ANALYSIS REQUEST ANALYSIS REQUEST TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Volatiles TCLP Volatiles TCLP Semi Volatiles Remarks: TCLP Semi Volatiles Rush Charges Authorized GC/MS Vol. 8270C/625 PCB's 8082 / 608 NORM NORM PLM (Asbestos) Yeth Yeth	Image: Special Report Limits or TRRP Report Image: Special Report Limits or TRRP Report Image: Straking #: Image: Straking #:
	ANDARD Same Day 24 h	NDARD GC/MS Semi. Vol. 8270C/625 Same Day 24 hr Same Day 24 hr Same Day 24 hr Authorized Same Day 24 hr 48 hr 72 hr

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland	Acceptable Temperat	ure Range: 0 - 6 degC								
Date/ Time Received: 08.21.2020 10.55.00 AM	Air and Metal samples Acceptable Range: Ambient									
Work Order #: 670700	Temperature Measurin	ng device used: T_NM_007								
Sample Rece	ipt Checklist	Comments								
#1 *Temperature of cooler(s)?	4.2									
#2 *Shipping container in good condition?	Yes	i								
#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	Samples received in bulk containers.								
#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:

Date: 08.21.2020

Checklist reviewed by: Jessica Kramer

Date: 08.21.2020

🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-1905-1

Laboratory Sample Delivery Group: Eddy County, NM Client Project/Site: COG - Big Papi Fed. Com #2H

For:

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

Attn: Brittany Long

RAMER

Authorized for release by: 5/7/2021 10:10:41 AM Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

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

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

Visit us at: www.eurofinsus.com/Env Released to Imaging: 3/15/2022 9:42:49 AM

Ask-

LINKS

Review your project results through

Total Access

Have a Question?

•

Laboratory Job ID: 880-1905-1

SDG: Eddy County, NM

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
QC Sample Results	6
QC Association Summary	7
Lab Chronicle	8
Certification Summary	10
Method Summary	11
Sample Summary	12
Chain of Custody	13
Receipt Checklists	14

Definitions/Glossary

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H

Job ID: 880-1905-1 SDG: Eddy County, NM

Qualifiers

Qualifiers		3
HPLC/IC		
Qualifier	Qualifier Description	4
U		
Glossary		5
Abbreviation	These commonly used abbreviations may or may not be present in this report.	6
¤	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	0
CNF	Contains No Free Liquid	ŏ
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	9
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	

4

5

Case Narrative

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H

Job ID: 880-1905-1 SDG: Eddy County, NM

Job ID: 880-1905-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-1905-1

Receipt

The samples were received on 5/5/2021 4:17 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

HPLC/IC

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

		Client	Sample R	esults	5				
Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com	#2H		-					Job ID: 880 SDG: Eddy Cou)-1905-1 inty, NM
Client Sample ID: AH-4 (0'-1') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17							Lab Sa	mple ID: 880- Matri	1905-1 ix: Solid
Method: 300.0 - Anions, Ion Chroma	tography -	Soluble				_	_		
Analyte Chloride	Result 222	Qualifier	RL 	MDL	mg/Kg	<u> </u>	Prepared	Analyzed 05/06/21 14:08	Dil Fac
Client Sample ID: AH-4 (1'-1.5') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17							Lab Sa	mple ID: 880- Matri	1905-2 ix: Solid
Method: 300.0 - Anions, Ion Chroma	tography -	Soluble							
Analyte Chloride	Result 681	Qualifier		MDL	Unit ma/Ka	D	Prepared	Analyzed 05/06/21 14:13	Dil Fac
Client Sample ID: AH-4 (1.5'-2') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17							Lab Sa	mple ID: 880- Matri	1905-3 ix: Solid
Method: 300.0 - Anions, Ion Chroma	tography -	Soluble							
Analyte Chloride	Result 524	Qualifier		MDL	Unit ma/Ka	<u>D</u>	Prepared	Analyzed 05/06/21 14:28	Dil Fac
Client Sample ID: AH-5 (0'-1') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17							Lab Sa	mple ID: 880- Matri	1905-4 ix: Solid
Method: 300.0 - Anions, Ion Chroma Analyte	- itography Result	Soluble Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1710		25.2		mg/Kg			05/06/21 14:33	5
Client Sample ID: AH-5 (1'-1.5') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17							Lab Sa	mple ID: 880- Matri	1905-5 ix: Solid
Method: 300.0 - Anions, Ion Chroma	tography -	Soluble							
Analyte Chloride	Result	Qualifier		MDL	Unit ma/Ka	D	Prepared	Analyzed	Dil Fac
Client Sample ID: AH-5 (2'-2.5') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17	1350		20.2				Lab Sa	mple ID: 880- Matri	1905-6 ix: Solid
Method: 300.0 - Anions, Ion Chroma	itography - Result	Soluble Qualifier	RI	МП	Unit	п	Prepared	Analyzed	Dil Fac
Chloride	5960		49.9		mg/Kg		Troparca	05/06/21 14:43	10
Client Sample ID: AH-6 (0'-1') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17							Lab Sa	mple ID: 880- Matri	1905-7 ix: Solid
Method: 300.0 - Anions, Ion Chroma	tography -	Soluble			1114	_	Dura 1	A	D
Anaivte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac

Eurofins Xenco, Midland

05/06/21 14:48

Released to Imaging: 3/15/2022 9:42:49 AM

Chloride

5.00

mg/Kg

583

1
QC Sample Results

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H Job ID: 880-1905-1 SDG: Eddy County, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2752/1-A Matrix: Solid Analysis Batch: 2784										Client	Sample P	ID: Metho rep Type:	d Blank Soluble
-	МВ	МВ											
Analyte	Result	Qualifier		RL		MDL	Unit		D	Prepared	Α	nalyzed	Dil Fac
Chloride	<5.00	U		5.00			mg/Kg				05/0	6/21 13:28	1
Lab Sample ID: LCS 880-2752/2-A Matrix: Solid Analysis Batch: 2784									Clie	nt Samp	le ID: La P	b Control rep Type:	Sample Soluble
			Spike		LCS	LCS					%Rec		
Analyte			Added		Result	Qual	ifier	Unit	0) %Rec	Limits	6	
Chloride			250		242.5			mg/Kg		97	90 - 11	10	
Lab Sample ID: LCSD 880-2752/3-A Matrix: Solid Analysis Batch: 2784								Cli	ent Sa	imple ID	: Lab Co P	ntrol Sam rep Type:	ole Dup Soluble
-			Spike		LCSD	LCS	D				%Rec		RPD
Analyte			Added		Result	Qual	ifier	Unit	0) %Rec	Limits	s RPC	Limit
Chloride			250		242.8			mg/Kg		97	90 - 11	10 0	20

QC Association Summary

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H

Job ID: 880-1905-1 SDG: Eddy County, NM

HPLC/IC

Leach Batch: 2752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-1905-1	AH-4 (0'-1')	Soluble	Solid	DI Leach	
880-1905-2	AH-4 (1'-1.5')	Soluble	Solid	DI Leach	
880-1905-3	AH-4 (1.5'-2')	Soluble	Solid	DI Leach	
880-1905-4	AH-5 (0'-1')	Soluble	Solid	DI Leach	
880-1905-5	AH-5 (1'-1.5')	Soluble	Solid	DI Leach	
880-1905-6	AH-5 (2'-2.5')	Soluble	Solid	DI Leach	
880-1905-7	AH-6 (0'-1')	Soluble	Solid	DI Leach	
MB 880-2752/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2752/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2752/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2784

HPLC/IC						
Leach Batch: 2752						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
880-1905-1	AH-4 (0'-1')	Soluble	Solid	DI Leach		
880-1905-2	AH-4 (1'-1.5')	Soluble	Solid	DI Leach		5
880-1905-3	AH-4 (1.5'-2')	Soluble	Solid	DI Leach		
880-1905-4	AH-5 (0'-1')	Soluble	Solid	DI Leach		
880-1905-5	AH-5 (1'-1.5')	Soluble	Solid	DI Leach		
880-1905-6	AH-5 (2'-2.5')	Soluble	Solid	DI Leach		7
880-1905-7	AH-6 (0'-1')	Soluble	Solid	DI Leach		
MB 880-2752/1-A	Method Blank	Soluble	Solid	DI Leach		8
LCS 880-2752/2-A	Lab Control Sample	Soluble	Solid	DI Leach		
LCSD 880-2752/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach		9
Analysis Batch: 2784						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
880-1905-1	AH-4 (0'-1')	Soluble	Solid	300.0	2752	
880-1905-2	AH-4 (1'-1.5')	Soluble	Solid	300.0	2752	
880-1905-3	AH-4 (1.5'-2')	Soluble	Solid	300.0	2752	
880-1905-4	AH-5 (0'-1')	Soluble	Solid	300.0	2752	
880-1905-5	AH-5 (1'-1.5')	Soluble	Solid	300.0	2752	
880-1905-6	AH-5 (2'-2.5')	Soluble	Solid	300.0	2752	13
880-1905-7	AH-6 (0'-1')	Soluble	Solid	300.0	2752	
MB 880-2752/1-A	Method Blank	Soluble	Solid	300.0	2752	
LCS 880-2752/2-A	Lab Control Sample	Soluble	Solid	300.0	2752	
LCSD 880-2752/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2752	

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab	Chr	onicle
LUN	VIII	

Job ID: 880-190	5-1
SDG: Eddy County,	NM

Lab Sample ID: 880-1905-1

Lab Sample ID: 880-1905-2

Lab Sample ID: 880-1905-3

Lab Sample ID: 880-1905-4

Lab Sample ID: 880-1905-5

Lab Sample ID: 880-1905-6

Client Sample ID: AH-4 (0'-1')

Project/Site: COG - Big Papi Fed. Com #2H

Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17

Client: Tetra Tech, Inc.

Γ	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		1	2784	05/06/21 14:08	СН	XM

Client Sample ID: AH-4 (1'-1.5') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		1	2784	05/06/21 14:13	СН	XM

Client Sample ID: AH-4 (1.5'-2')

Date Collected: 05/05/21 00:00

Date Received: 05/05/21 16:17

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		1	2784	05/06/21 14:28	CH	XM

Client Sample ID: AH-5 (0'-1')

Date Collected: 05/05/21 00:00

Date Received: 05/05/21 16:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		5	2784	05/06/21 14:33	СН	XM

Client Sample ID: AH-5 (1'-1.5')

Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		5	2784	05/06/21 14:38	СН	XM

Client Sample ID: AH-5 (2'-2.5') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		10	2784	05/06/21 14:43	СН	XM

Matrix: Solid

5 6 7

Lab Chronicle

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H Job ID: 880-1905-1 SDG: Eddy County, NM

Lab Sample ID: 880-1905-7

Client Sample ID: AH-6 (0'-1') Date Collected: 05/05/21 00:00 Date Received: 05/05/21 16:17

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2752	05/06/21 13:00	SC	XM
Soluble	Analysis	300.0		1	2784	05/06/21 14:48	СН	XM

Laboratory References:

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

Eurofins Xenco, Midland

Job ID: 880-1905-1 SDG: Eddy County, NM

Accreditation/Certification Summary

Client: Tetra	Tech, Inc.
Project/Site:	COG - Big Papi Fed. Com #2H

Laboratory: Eurofins Xenco, Midland

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

Authority
TexasProgram
NELAPIdentification Number
T104704400-20-21Expiration Date
06-30-214678

Method Summary

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H

Job ID: 880-1905-1 SDG: Eddy County, NM

Method	Method Description	Protocol	Laboratory	
300.0	Anions, Ion Chromatography	MCAWW	XM	A
DI Leach	Deionized Water Leaching Procedure	ASTM	XM	
Protocol Re	eferences:			5
ASTM =	ASTM International			
MCAWV	N = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, Marc	ch 1983 And Subsequent Revisions.		
Laboratory	References:			
XM = Eu	urofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440			
				ð
				0
				9
				10

Laboratory References:

Eurofins Xenco, Midland

Client: Tetra Tech, Inc. Project/Site: COG - Big Papi Fed. Com #2H

Job ID: 880-1905-1 SDG: Eddy County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID	
880-1905-1	AH-4 (0'-1')	Solid	05/05/21 00:00	05/05/21 16:17		-
880-1905-2	AH-4 (1'-1.5')	Solid	05/05/21 00:00	05/05/21 16:17		
880-1905-3	AH-4 (1.5'-2')	Solid	05/05/21 00:00	05/05/21 16:17		5
880-1905-4	AH-5 (0'-1')	Solid	05/05/21 00:00	05/05/21 16:17		5
880-1905-5	AH-5 (1'-1.5')	Solid	05/05/21 00:00	05/05/21 16:17		
880-1905-6	AH-5 (2'-2.5')	Solid	05/05/21 00:00	05/05/21 16:17		
880-1905-7	AH-6 (0'-1')	Solid	05/05/21 00:00	05/05/21 16:17		
						8
						9
						11
						13

Eurofins Xenco, Midland

	iveninquisi ieu by	Dolinguishod by	Relinquished by	Colton Bickerstat	Relinguished by				/				/	LAB USE ONLY	LAB #		Comments	G	Receiving Laborat	(county, state)	Fivject Nallie			Analysis Rec
	Date lime	2	Date Time	* Sisie 16:15	Date Time		AH-6 (0'-1')	AH-5 (2'-2 5')	AH-5 (1'-1 5')	AH-5 (0'-1')	AH-4 (1 5'-2')	AH-4 (1'-1 5')	AH-4 (0'-1')		SAMPLE IDENTIFICATION			Eurofins Xenco	COG, Attention Ike Tavarez	Eddy County	Big Papi Fed Com #2H	COG	Tetra Tech. Inc.	quest of Chain of Custody Record
ORIGINAL COF	Received by		Réceive¢ by "	A China	Bronch by D		5/5/2021	5/5/2021	5/5/2021	5/5/2021	5/5/2021	5/5/2021	5/5/2021	DATE	YEAR	SAMPLING		Sampier Signature		Project #:		Site Manager [.]		
γc	Date T		Date T	Un 5/5/2-1	> 	>	×	×	×	x	X	X X	x	WATER SOIL HCL HNO ₃ ICE		MATRIX PRESERV		Colton Bickersta		212C-MD-0185		Clair Gonzales	901 W Wall St. Suite 10 Midland,Texas 79701 Tel (432) 682-4559 Fax (432) 682-3946	
(Ci	ſıme	CA	fime Sai	Ner7		-	1	1 N	-1 Z	1 N	1 N	1 N	1 N	# CONTA FILTERE BTEX 802	D (Y 21B	RS (/N)	X 8260	aff		Ο̈́Τ			880-1905 Chain o	
rcie) HAND DELIVERED	to, 5	5,5/6,0 [mple Temperature	LAB USE REI										TPH TX1 TPH 8015 PAH 8270 Total Meta TCLP Met	005 5M (DC als A als A atiles	(Ext to GRO - ag As B Ag As B s	C35) DRO - C a Cd Cr 3a Cd Cr	DRO - Pb Se Pb S	MRO) Hg ∋ Hg			AN	f Custody	
FEDEX UPS Tracking #	Special Report Limits or TR	Rush Charges Authorized	XRUSH Same Day 24 hr	MARKS:			< >	×	×	×	×	×	×	TCLP Sen RCI GC/MS Vc GC/MS Se PCB's 800 NORM PLM (Asbe Chloride Chloride	ni Vo ol 8 emi 82 / esto:	260B / Vol 82 608 s)	624 270C/62: TDS	5				ALYSIS REQUEST	1-080	Page
	RP Report		48 hr 72 hr								Pau			General V Anion/Cat	Vate	r Cher Balanc	nıstry (s ce	ee att	ached	list)	>>)		205	ୁ ୁ 1772021

Released to Imaging: 3/15/2022 9:42:49 AM

Page 188 of 220

13

Job Number: 880-1905-1 SDG Number: Eddy County, NM

List Source: Eurofins Midland

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Login Number: 1905 List Number: 1 Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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.	False	No sample collection times on COC
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	

🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-9675-1

Laboratory Sample Delivery Group: Eddy County, New Mexico Client Project/Site: Big Papi Federal Com #2H

For:

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

Attn: Clair Gonzales

RAMER

Authorized for release by: 12/31/2021 10:40:38 AM Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

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

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

Visit us at: www.eurofinsus.com/Env Released to Imaging: 3/15/2022 9:42:49 AM

..... LINKS

Review your project results through

Total Access

Have a Question?

Ask-

The

Expert

Laboratory Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Client Sample Results	5
QC Sample Results	7
QC Association Summary	8
Lab Chronicle	9
Certification Summary	11
Method Summary	12
Sample Summary	13
Chain of Custody	14
Receipt Checklists	15

Definitions/Glossary

Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Qualifiers

u	п		~	
п	•	-	C,	

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

Project/Site: Big Papi Federal Com #2H

Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Job ID: 880-9675-1

Client: Tetra Tech, Inc.

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-9675-1

Receipt

The samples were received on 12/22/2021 4:38 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C

HPLC/IC

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

		Clien	t Sample R	esults	;				
Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H							SDG: E	Job ID: 880 ddy County, New)-9675-1 v Mexico
Client Sample ID: AH-4 (0-1')							Lab Sa	mple ID: 880-	9675-1
Date Collected: 12/22/21 11:20								Matri	ix: Solid
Date Received: 12/22/21 16:38									
Method: 300.0 - Anions, Ion Chromate	ography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.0		4.98		mg/Kg			12/30/21 19:31	1
Client Sample ID: AH-4 (1'-1.5')							Lab Sa	mple ID: 880-	9675-2
Date Collected: 12/22/21 11:25								Matri	ix: Solid
Date Received: 12/22/21 16:38									
Method: 200.0 Anions Ion Chromat	ography	Solublo							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	274		4.95		mg/Kg			12/30/21 19:43	1
Client Sample ID: AH-4 (1.5'-2')							Lab Sa	mple ID: 880-	9675-3
Date Collected: 12/22/21 11:30								Matri	ix: Solid
Date Received: 12/22/21 16:38									
Method: 300.0 - Anions, Ion Chromate	o <mark>graphy</mark> -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		4.99		mg/Kg			12/30/21 19:55	1
Client Sample ID: AH-5 (0-1')							Lab Sa	mple ID: 880-	9675-4
Date Collected: 12/22/21 11:35								Matri	ix: Solid
Date Received: 12/22/21 16:38									
Method: 300.0 - Anions, Ion Chromate	ography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.8		4.95		mg/Kg		•	12/30/21 20:07	1
Client Sample ID: AH-5 (1'-1 5')							l ah Sa	mple ID: 880-	9675-5
Date Collected: 12/22/21 11:40							Lab Ou	Matri	ix: Solid
Date Received: 12/22/21 16:38								Wath	
		0.1.1.1.							
Method: 300.0 - Anions, ion Chromato	- Bocult	Ouglifier	Ы	MDI	Unit	Р	Propared	Analyzod	Dil Eac
Chloride	72.2		5.01		ma/Ka		Frepareu	12/30/21 20:19	1
Client Sample ID: AH-5 (1.5'-2')							Lab Sa	mple ID: 880-	9675-6
Date Collected: 12/22/21 11:45								Matri	ix: Solid
Date Received: 12/22/21 16:38									
Method: 300.0 - Anions, Ion Chromate	ography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Chloride	228		5.02		mg/Kg			12/30/21 20:54	1
Client Sample ID: AH-6 (0-1')							Lab Sa	mple ID: 880-	9675-7
Date Collected: 12/22/21 11:50								Matri	ix: Solid
Date Received: 12/22/21 16:38									
Method: 300.0 - Anions, Ion Chromate	ography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.1		4.98		mg/Kg			12/30/21 21:06	1

Eurofins Xenco, Midland

Released to Imaging: 3/15/2022 9:42:49 AM

		Client	Sample R	esults	5							
Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Con	Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H						Job ID: 880-9675-1 SDG: Eddy County, New Mexico					
Client Sample ID: AH-6 (1-1.5') Date Collected: 12/22/21 11:55 Date Received: 12/22/21 16:38							Lab Sa	mple ID: 880- Matri	9675-8 ix: Solid			
Method: 300.0 - Anions, Ion Ch	romatography -	Soluble								4		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5		
Chloride	47.5		5.05		mg/ĸg			12/30/21 21:42	1			
										8		
										9		
										13		

QC Sample Results

Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15520/1	- A										Client S	Sample ID:	Method	Blank
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 15816			_											
	_	мвм	в						_	_				
Analyte	Re	esult Q	ualifier		RL		MDL U	Init	_ D	P	repared	Analyz	zed	Dil Fac
Chloride	<	5.00 U			5.00		n	ng/Kg				12/30/21	16:57	1
Lab Sample ID: LCS 880-15520/	2-A									Client	Sample	ID: Lab C	ontrol S	ample
Matrix: Solid												Prep	Type: Se	oluble
Analysis Batch: 15816														
-				Spike		LCS	LCS					%Rec.		
Analyte				Added		Result	Qualifi	er Unit		D	%Rec	Limits		
Chloride				250		246.1		mg/Kg			98	90 - 110		
Lab Sample ID: LCSD 880-15520	0/3-A							С	lien	nt Sam	ple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 15816														
				Spike		LCSD	LCSD					%Rec.		RPD
Analyte				Added		Result	Qualifi	er Unit		D	%Rec	Limits	RPD	Limit
Chloride				250		250.5		mg/Kg			100	90 _ 110	2	20
											0	0		
Lab Sample ID: 880-9675-5 MS											Client	Sample ID	: AH-5 (1	(-1.5)
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 15816	. .			• •								~ -		
	Sample	Sample)	Spike		MS	MS			_		%Rec.		
Analyte	Result	Qualifie	er	Added		Result	Qualifi	er Unit		_ <u>D</u>	%Rec	Limits		
Chloride	72.2			251		331.2		mg/Kg			103	90 - 110		
Lab Sample ID: 880-9675-5 MSD)										Client	Sample ID	: AH-5 (1	'-1.5')
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 15816														
-	Sample	Sample)	Spike		MSD	MSD					%Rec.		RPD
Analyte	Result	Qualifie	er	Added		Result	Qualifi	er Unit		D	%Rec	Limits	RPD	Limit
Chloride	72.2			251		336.9		mg/Kg			106	90 _ 110	2	20

QC Association Summary

Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H

Job ID: 880-9675-1 SDG: Eddy County, New Mexico

HPLC/IC

Leach Batch: 15520

HPLC/IC					3	
Leach Batch: 15520						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
880-9675-1	AH-4 (0-1')	Soluble	Solid	DI Leach		
880-9675-2	AH-4 (1'-1.5')	Soluble	Solid	DI Leach	5	
880-9675-3	AH-4 (1.5'-2')	Soluble	Solid	DI Leach		
880-9675-4	AH-5 (0-1')	Soluble	Solid	DI Leach		
880-9675-5	AH-5 (1'-1.5')	Soluble	Solid	DI Leach		
880-9675-6	AH-5 (1.5'-2')	Soluble	Solid	DI Leach	7	
880-9675-7	AH-6 (0-1')	Soluble	Solid	DI Leach		
880-9675-8	AH-6 (1-1.5')	Soluble	Solid	DI Leach	8	
MB 880-15520/1-A	Method Blank	Soluble	Solid	DI Leach		
LCS 880-15520/2-A	Lab Control Sample	Soluble	Solid	DI Leach	9	
LCSD 880-15520/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach		
880-9675-5 MS	AH-5 (1'-1.5')	Soluble	Solid	DI Leach		
880-9675-5 MSD	AH-5 (1'-1.5')	Soluble	Solid	DI Leach		

Analysis Batch: 15816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9675-1	AH-4 (0-1')	Soluble	Solid	300.0	15520
880-9675-2	AH-4 (1'-1.5')	Soluble	Solid	300.0	15520
880-9675-3	AH-4 (1.5'-2')	Soluble	Solid	300.0	15520
880-9675-4	AH-5 (0-1')	Soluble	Solid	300.0	15520
880-9675-5	AH-5 (1'-1.5')	Soluble	Solid	300.0	15520
880-9675-6	AH-5 (1.5'-2')	Soluble	Solid	300.0	15520
880-9675-7	AH-6 (0-1')	Soluble	Solid	300.0	15520
880-9675-8	AH-6 (1-1.5')	Soluble	Solid	300.0	15520
MB 880-15520/1-A	Method Blank	Soluble	Solid	300.0	15520
LCS 880-15520/2-A	Lab Control Sample	Soluble	Solid	300.0	15520
LCSD 880-15520/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15520
880-9675-5 MS	AH-5 (1'-1.5')	Soluble	Solid	300.0	15520
880-9675-5 MSD	AH-5 (1'-1.5')	Soluble	Solid	300.0	15520

Project/Site: Big Papi Federal Com #2H

Matrix: Solid

Matrix: Solid

Lab Chronicle

Job ID: 880-9675-1
SDG: Eddy County, New Mexico

Lab Sample ID: 880-9675-1

Lab Sample ID: 880-9675-2

Client Sample ID: AH-4 (0-1') Date Collected: 12/22/21 11:20

Date Received: 12/22/21 16:38

Client: Tetra Tech, Inc.

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 19:31	СН	XEN MID

Client Sample ID: AH-4 (1'-1.5') Date Collected: 12/22/21 11:25 Date Received: 12/22/21 16:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 19:43	CH	XEN MID

Client Sample ID: AH-4 (1.5'-2')

Lab Sample ID: 880-9675-3 Matrix: Solid

Lab Sample ID: 880-9675-4

Lab Sample ID: 880-9675-5

Lab Sample ID: 880-9675-6

Date Collected: 12/22/21 11:30 Date Received: 12/22/21 16:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 19:55	СН	XEN MID

Client Sample ID: AH-5 (0-1')

Date Collected: 12/22/21 11:35

Date Received: 12/22/21 16:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 20:07	СН	XEN MID

Client Sample ID: AH-5 (1'-1.5')

Date Collected: 12/22/21 11:40

Date Received: 12/22/21 16:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 20:19	CH	XEN MID

Client Sample ID: AH-5 (1.5'-2') Date Collected: 12/22/21 11:45 Date Received: 12/22/21 16:38

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 20:54	CH	XEN MID

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

8

Lab Chronicle

Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Lab Sample ID: 880-9675-7

Lab Sample ID: 880-9675-8

Client Sample ID: AH-6 (0-1') Date Collected: 12/22/21 11:50

Project/Site: Big Papi Federal Com #2H

Client: Tetra Tech, Inc.

 [Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 21:06	СН	XEN MID

Client Sample ID: AH-6 (1-1.5') Date Collected: 12/22/21 11:55 Date Received: 12/22/21 16:38

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	15520	12/24/21 19:53	SC	XEN MID
Soluble	Analysis	300.0		1			15816	12/30/21 21:42	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Midland

Released to Imaging: 3/15/2022 9:42:49 AM

Accreditation/Certification Summary

Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H

Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Laboratory: Eurofins Xenco, Midland

Autionty	Fiogram		
Texas	NELAP	 <u>06-30-22</u>	
-			

Eurofins Xenco, Midland

Method Summary

Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H

Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Method	Method Description	Protocol	Laboratory	
300.0	Anions, Ion Chromatography	MCAWW	XEN MID	-
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID	
				5

Protocol References:

ASTM = ASTM International

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

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: Tetra Tech, Inc. Project/Site: Big Papi Federal Com #2H Job ID: 880-9675-1 SDG: Eddy County, New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-9675-1	AH-4 (0-1')	Solid	12/22/21 11:20	12/22/21 16:38
880-9675-2	AH-4 (1'-1.5')	Solid	12/22/21 11:25	12/22/21 16:38
880-9675-3	AH-4 (1.5'-2')	Solid	12/22/21 11:30	12/22/21 16:38
880-9675-4	AH-5 (0-1')	Solid	12/22/21 11:35	12/22/21 16:38
880-9675-5	AH-5 (1'-1.5')	Solid	12/22/21 11:40	12/22/21 16:38
880-9675-6	AH-5 (1.5'-2')	Solid	12/22/21 11:45	12/22/21 16:38
880-9675-7	AH-6 (0-1')	Solid	12/22/21 11:50	12/22/21 16:38
880-9675-8	AH-6 (1-1.5')	Solid	12/22/21 11:55	12/22/21 16:38

Released to Imaging: 3/15/2022 9:42:49 AM

approximation of Collin of Councily Record TERT Tech, Inc. approximation of Councily Record CouncochPhaltes approximation of Councily Record Big Fags Fedderal Coun 201 Term Tech, Inc. approximation of Councily Record Big Fags Fedderal Coun 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard Count 201 Term Tech Rechard R				Relinquished by		Colton Bickersta	Relinquished by										LAB USE ONLY	LAB #			Comments	Receiving Labor	county, state)	Project Name	Client Name	5	Analysis Re			
Bit North Mail Bit Nor				y Date Time		aff 12/22/21 16-05-6/138	y Date Time		AH-6 (1'-1 5')	AH-6 (0-1')	AH-5 (1 5'-2')	AH-5 (1'-1 5')	AH-5 (0-1')	AH-4 (1 5'-2')	AH-4 (1'-1 5')	AH-4 (0-1)		SAMPLE IDENTIFICATION		Send invoice, results to Clair Gonzales at Clair.Gonzales@	Eurofins Xenco	Tetra Tech, Attention Clair Gonzales	n Eddy County, New Mexico	Bıg Papı Federal Com #2H	ConocoPhillips	Tetra Tech, Inc.	equest of Chain of Custody Record			
Mage Colorn Bickerstaff Colorn Bickerstaff Colorn Bickerstaff Initial color colorn Bickerstaff Colorn Bickerstaff Colorn Bickerstaff Circle or Specify Method No.) Initial color colorn Bickerstaff Initial color colorn Bickerstaff Circle or Specify Method No.) Circle or Specify Method No.) Initial color colorn Bickerstaff Initial color colorn Bickerstaff Circle or Specify Method No.) Circle or Specify Method No.) Initial color colorn Bickerstaff Initial color colorn Bickerstaff Initial color colorn Bickerstaff Circle or Specify Method No.) Initial color colorn Bickerstaff Initial color colorn Bickerstaff Initial color colorn Bickerstaff Circle or Specify Method No.) Initial color colorn Bickerstaff Initial color colorn colorn Bickerstaff Initial color colorn co				Received by:		AUT.	Received by		12/22/2021	12/22/2021	12/22/2021	12/22/2021	12/22/2021	12/22/2021	12/22/2021	12/22/2021	DATE	YEAR.	SAMPL	tetratech.com	Sampler Signa	0	Project #		Site Manager					
age 1 of the set of the se	СОРҮ					VC Č			11 55	11 50	11 45	11 40	11 35	11 30	11 25	11 20	TIME		ING	-	ure									
American State to Privide State as an information of Custoff Privide State as an				ļ			\mathbb{F}		×	×	×	×	×	×	×	×	WATE SOIL	R	MATE		ç				Clair	901				
Interstanding Interstanding<				D	Da	D	Ď	Ç.	, 12	D.										HCI	-	×		lton E				Gonza	West W Midland, Tel (432 Fax (432	
Start Start <td< td=""><td></td><td></td><td></td><td>te</td><td>ile</td><td>12/</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>HNO₃</td><td></td><td>PRESE</td><td></td><td>Sicker</td><td></td><td></td><td></td><td>ales</td><td>all St, Su Texas 79 2) 682-45 2) 682-39</td><td></td></td<>				te	ile	12/											HNO ₃		PRESE		Sicker				ales	all St, Su Texas 79 2) 682-45 2) 682-39				
OPEC Circle or Specify Method NO; Image: Standard TAT Image: Standard TAT				Time	lime	1221		+	×	×	×	×	×	×	×	×	ICE		ERVATIV		staff					uite 100 701 59				
AMALYSIS RECUEST Clicke HAND DELIVERED FUNDATION CLICKE FOR VIS TRADATE CLICKE FOR VIS TRADATE CLI						21													m.											
CC Image: Construct of the second						-6	L	_		-1		-				-	# CONT	AINE	RS											
General Water Chemistry (see attached list) Anion/Cation Balance General Water Chemistry (see attached list) Anion/Cation Balance General Water Chemistry (see attached list) Anion/Cation Balance Aminor/Cation Balance Anion/Cation Balance Aminor/Cation Bal						63			z	z	z	z	z	z	z	z	FILTER	ED (Y	(/N)							m -				
Control Custory Circle or Specify Method NO; Circle o		(Circle)	Ц:	۔ بے نے	Sample	C	┢		╀──								BTEX 80	021B 1005	BTEX (Ext to)	X 82608 C35)	3				[80-96				
Antropy Circle or Specify Method No.) Antropy Circle or Specify Method No. Antropy Circle or Specify Metho	C	HAND	TAG (<u> </u>	Tempe	ONL'	F									_	TPH 801 PAH 827	15M (70C	GRO -	DRO - (DRO)					75 Ch				
Response Average	20	DELIV	C.	V	rature	∼ or m		1									Total Me	tals A	g As Ba	a Cd Cr	Cd Cr Pb Se Hg					ain of				
FEDEX UPS Rush Image Image <thimage< th=""> <thimage< th=""> <thimage< th=""> <thimage<< td=""><td rowspan="2">۶</td><td>ERED</td><td></td><td></td><td>л г—</td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>TCLP Vo</td><td>latiles</td><td>ig / ic //</td><td><u>u ou o.</u></td><td></td><td></td><td></td><td> @ Q</td><td>A</td><td>Custo</td><td></td></thimage<<></thimage<></thimage<></thimage<>	۶	ERED			л г—	1											TCLP Vo	latiles	ig / ic //	<u>u ou o.</u>				@ Q	A	Custo				
X UPS Tracking # Standard TAT Standard State TDS State		FEDE	چې پې	Rus													RCI							v		dy				
PCB s 8082 / 608 MCfthod NORM PLM (Asbestos) Tracking # PLM (Asbestos) PLM (Asbestos) PLM (Asbestos) PLM (Asbestos) PLM (Asbestos) PLM (Asbestos) Chloride Chloride Anion/Cation Balance Asbestos 12 31/2021		× ⊊	cial R	sh Cha		د د	2							_			GC/MS Vol 8260B / 624 GC/MS Semi Vol 8270C/625						SIS R							
Increase Increase <td< td=""><td></td><td>ч Г S</td><td>eport</td><td>Irges /</td><td>Same</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td colspan="6">PCB s 8082 / 608</td><td></td><td></td></td<>		ч Г S	eport	Irges /	Same			-									PCB s 8082 / 608													
** 0 r No No <t< td=""><td></td><td>racking</td><td>Limits</td><td>Author</td><td>Day</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td colspan="5">PLM (Asbestos)</td><td> fi</td><td>IEST</td><td></td><td>Ø</td></t<>		racking	Limits	Author	Day												PLM (Asbestos)					fi	IEST		Ø					
RP 48 48 General Water Chemistry (see attached list) RP RP Anion/Cation Balance RP RP		#	or TR	ized	24 hr	1	Ì		×	×	×	×	×	\ge	×	×	Chloride Chloride Sulfate TDS					à '					ge			
Number of the second			RP Re		48 h		F		F1	=	1	_		4	1		General	Wate	r Chem	nistry (s	ee atta	ched lis	t)	_ <u>?</u>						
Image: Page 14 of 15 12/31/2021															Asbestos			-	-	·										
Page 14 of 15 12/31/2021					hr		\vdash		$\left \right $	-+	-+	-	+	+	+	+											of			
Langed to Imagement 2/15/2022 0.42.40 AM			-			10.000											Hold 4 of 15									12	31/2021			

Job Number: 880-9675-1

SDG Number: Eddy County, New Mexico

List Source: Eurofins Xenco, Midland

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Login Number: 9675 List Number: 1 Creator: Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		
Sample custody seals, if present, are intact.	N/A		
The cooler or samples do not appear to have been compromised or tampered with.	True		8
Samples were received on ice.	True		
Cooler Temperature is acceptable.	True		9
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		13
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is	N/A		

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

APPENDIX D Photographic Documentation

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of Bottomholes 2 and 3



View South, area of bottomhole 1

ſ

TETRA TECH

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of Bottom Hole 1



View South, area of AH-1

Eddy County, New Mexico



View North, area of AH-3 and AH-4



View South, AH-5 and AH-6

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View Southeast, area of AH-3 and AH-4



View Southeast, area of AH-3 and AH-4

Eddy County, New Mexico



View East, area of AH-7



View West, area of AH-8

Eddy County, New Mexico



View South, area of AH-9



View South, area of AH-10 and AH-11

Page 211 of 220

Eddy County, New Mexico



View West, area of AH-12, AH-3, and AH-14

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of Bottomholes 2 and 3



View South, area of bottomhole 1

Page 213 of 220

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of Bottom Hole 1



View South, area of AH-1

Page 214 of 220

Eddy County, New Mexico



View North, area of AH-3 and AH-4



View South, AH-5 and AH-6

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View Southeast, area of AH-3 and AH-4



View Southeast, area of AH-3 and AH-4
Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View East, area of AH-7



View West, area of AH-8

E TETRA TECH

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of AH-9



View South, area of AH-10 and AH-11

đ

TETRA TECH

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View West, area of AH-12, AH-3, and AH-14

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

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

District III

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

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

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

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	82914
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	3/15/2022