

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NRM2007645132
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Prima Exploration, Inc.	OGRID 329344
Contact Name Jacqueline Buczek	Contact Telephone 303-755-5681 ext. 109
Contact email jlbuczek@primaex.com	Incident # (assigned by OCD) NRM2007645132
Contact mailing address 250 Fillmore Street, Suite 500 Denver, CO 80206	

Location of Release Source

Latitude 32.7131958 Longitude -103.6176529
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Edith Federal #001	Site Type
Date Release Discovered 3/11/2020	API# (if applicable) 30-025-28856

Unit Letter	Section	Township	Range	County
N	25	18S	33E	Lea

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) 225	Volume Recovered (bbls) 203
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Recycle pump timer failed, caused issue with the heater treater and pushed oil into the open top water tank. The oil spilled into the tank containment earthen berm.

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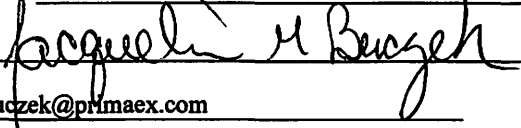
State of New Mexico
Oil Conservation Division

Incident ID	NRM2007645132
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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 spill is over 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Jacqueline Buczek reported the spill to Kelsey Wade at the BLM on 3/11/2020 by phone and e-mail. Jacqueline Buczek reported the spill to Cristina Eads at OCD on 3/12/2020 by phone and e-mail	

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Jacqueline Buczek</u> Signature: <u></u> email: <u>jbuczek@prmaex.com</u>	Title: <u>Petroleum Engineer</u> Date: <u>3/12/2020</u> Telephone: <u>303-755-5681 ext. 109</u>
OCD Only Received by: <u>Romona Marcus</u> Date: <u>3/16/2020</u>	

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State of New Mexico
Oil Conservation Division

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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?	42.6 (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.

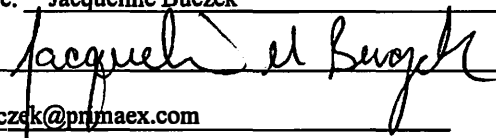
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform 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: Jacqueline BuczekTitle: Petroleum EngineerSignature: Date: 06-04-2020email: jbuczek@prmaex.comTelephone: 303-755-5681 ext. 109**OCD Only**

Received by: _____

Date: _____

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Remediation Plan

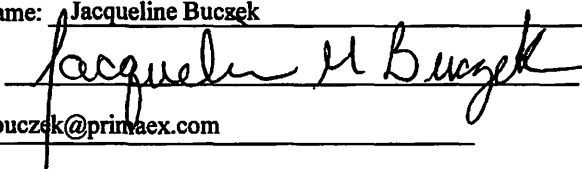
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Jacqueline BuczekTitle: Petroleum EngineerSignature: Date: 06-04-2020email: jbuczek@primaex.comTelephone: 303-755-5681 ext. 109**OCD Only**

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____

Date: _____

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State of New Mexico
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Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

talonlpe.com • 866.742.0742



Soil Assessment and Remediation Work Plan

Edith Federal #001
Lea County, New Mexico
API # 30-025-28856, Incident # NRM2007645132

Prepared For:

Prima Exploration, Inc.
250 Fillmore Street, Suite 500
Denver, Colorado 80206

Prepared By:

TALON/LPE
408 West Texas Avenue
Artesia, New Mexico 88210

May 21, 2020

Jacqueline Buczek
Prima Exploration, Inc.
250 Fillmore Street, Suite 500
Denver, CO 80206

Subject: **Soil Assessment and Remediation Work Plan**
Edith Federal #001
Lea County, New Mexico
API# 30-025-28856, Incident # NRM2007645132

Dear Ms. Buczek,

Prima Exploration, Inc. (Prima) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities are contained herein.

Site Information

Edith Federal #001 is located approximately twenty-eight (28) miles west of Hobbs, New Mexico. The legal location for this release is Unit Letter N, Section 25, Township 18 South and Range 33 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.7131958 North and -103.6176529 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Kermit soils and dune land, 0 to 12 percent slopes. The referenced soil data is presented in [Appendix II](#). Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Holocene to middle Pleistocene in age and is comprised of fine sand derived from eolian and piedmont deposits. Drainage courses in this area are typically well drained.

The United States Geological Survey's National Water Information System indicates that the nearest groundwater is 42.6' below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data. This facility is located within a low potential Karst area ([Appendix I](#)).

Site Characterization

Pursuant to Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29 of the New Mexico Administrative Code (NMAC), if a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater.

Approximate Depth to Groundwater		42.6 Feet/BGS
☐ Yes ☒ No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	
☐ Yes ☒ No	Within 200 feet of any lakebed, sinkhole, or playa lake	
☐ Yes ☒ No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church	
☐ Yes ☒ No	Within 500 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	Within 1000 feet of any fresh water well or spring	
☐ Yes ☒ No	Within incorporated municipal boundaries or within a defined Municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978	
☐ Yes ☒ No	Within 300 feet of a wetland	
☐ Yes ☒ No	Within the area overlying a subsurface mine	
☐ Yes ☒ No	Within an unstable area	
☐ Yes ☒ No	Within a 100-year floodplain	

As this incident occurred in an area with less than 50-feet depth to groundwater (despite not meeting any of the above criteria), the closure criteria are as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
≤ 50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On March 11, 2020, approximately 225 barrels (bbls) of crude oil were discovered within the earthen containment surrounding the tank battery. A circulating pump timer failure caused an issue with the heater allowing oil to flow into the open water tank from which it overflowed. Approximately 203 bbls of this release were recovered using a vacuum truck. The initial C-141 is attached for reference in [Appendix III](#).

Site Assessment

On May 6, 2020, Talon mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected within and around the impacted area utilizing a hand auger. Sample locations are shown on the attached site plan and analytical results from our initial sampling event are presented in the following data table. A complete laboratory report can be found in [Appendix V](#).

The impacted area is contained within the bermed area of the tank battery and is horizontally and vertically delineated.

Table 1 : Initial Soil Sample Analysis

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
S-1	0-1	5/6/2020	65.8	ND	3000	22400	1940	27340.0	4530
	2	5/6/2020	ND	ND	96.4	790	226	1112.4	36.3
	3	5/6/2020	0.0538	ND	ND	126	ND	126.0	23.7
	4	5/6/2020	ND	ND	ND	ND	ND	-	31.1
S-2	0-1	5/6/2020	ND	ND	ND	ND	ND	-	12
	2	5/6/2020	ND	ND	ND	ND	ND	-	ND
	3	5/6/2020	ND	ND	ND	ND	ND	-	ND
	4	5/6/2020	ND	ND	ND	ND	ND	-	14
S-3	0-1	5/6/2020	133	ND	4280	19000	1920	25200.0	207
	2	5/6/2020	172	2.28	4800	11300	1120	17220.0	10.6
	3	5/6/2020	0.645	ND	ND	301	ND	301.0	10.8
	4	5/6/2020	ND	ND	ND	92.6	ND	92.6	10.3
S-4	0-1	5/6/2020	ND	ND	ND	ND	ND	-	20.7
	2	5/6/2020	ND	ND	ND	ND	ND	-	20
	3	5/6/2020	ND	ND	ND	ND	ND	-	33.5
	4	5/6/2020	ND	ND	ND	ND	ND	-	45.3
S-5	0-1	5/6/2020	160	2.93	5480	21500	1880	28860.0	166
	2	5/6/2020	42	ND	248	1300	138	1686.0	22.8
	3	5/6/2020	ND	ND	ND	101	ND	101.0	10.2
	4	5/6/2020	ND	ND	ND	79.3	ND	79.3	ND
S-6	0-1	5/6/2020	ND	ND	ND	ND	ND	-	ND
	2	5/6/2020	ND	ND	ND	ND	ND	-	ND
	3	5/6/2020	ND	ND	ND	ND	ND	-	ND
	4	5/6/2020	ND	ND	ND	132	ND	132.0	18.4
S-7	0-1	5/6/2020	9.93	ND	564	6500	729	7793.0	824
	2	5/6/2020	0.264	ND	78.2	700	69.5	847.7	105
	3	5/6/2020	0.0998	ND	ND	ND	ND	-	66.4
	4	5/6/2020	ND	ND	ND	ND	ND	-	81.4
S-8	0-1	5/6/2020	ND	ND	ND	ND	ND	-	51.5
	2	5/6/2020	ND	ND	ND	ND	ND	-	14.6
	3	5/6/2020	ND	ND	ND	ND	ND	-	10.1
	4	5/6/2020	ND	ND	ND	ND	ND	-	27.9

ND= Analyte Not Detected

Proposed Remedial Actions

- The impacted area within earthen containment will be hand-excavated to a depth of 1.0-foot BGS. This will essentially remove the chloride impacts and the heavily saturated hydrocarbons. Upon completion, in-situ bioremediation treatment (Micro-Blaze) will be spray applied to break down the remaining hydrocarbons.
- The location well be resampled in 90-days to verify the treatment's effectiveness. If contaminant levels are still above remediation limits another treatment will be applied.
- Once TPH concentration is found to be below 100 mg/kg, the excavated area will be backfilled with new caliche.
- All the excavated material will be hauled to Lea Land LLC, a NMOCD approved solid waste disposal facility.
- A final closure report documenting the remedial actions performed and a Final C-141 will be provided to the NMOCD District I Office.

Note: Estimated Volumes: 5 - 5 gals. of Micro-Blaze chemical and 109 tons of backfill

Proposed Schedule for remediation - following NMOCD and BLM approval, contractors will be contacted and remediation will begin as promptly as possible, approximately within a two week period. Sampling will be conducted approximately 90 days after chemical is applied. Once soil samples test below Closure Criteria Table 1 specifications, remediation will be completed by backfilling with Caliche, within two weeks. Once remediation is completed the final C141 report will be filed in a timely manner.

Closure

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE

Brandon Sinclair
Environmental Scientist

David J. Adkins
District Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey & Groundwater Data
Appendix III Initial C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Data



APPENDIX I

SITE MAPS

Edith Federal #001

Prima Exploration, Inc.
API # 30-025-28856
Lea County, NM
Site Map

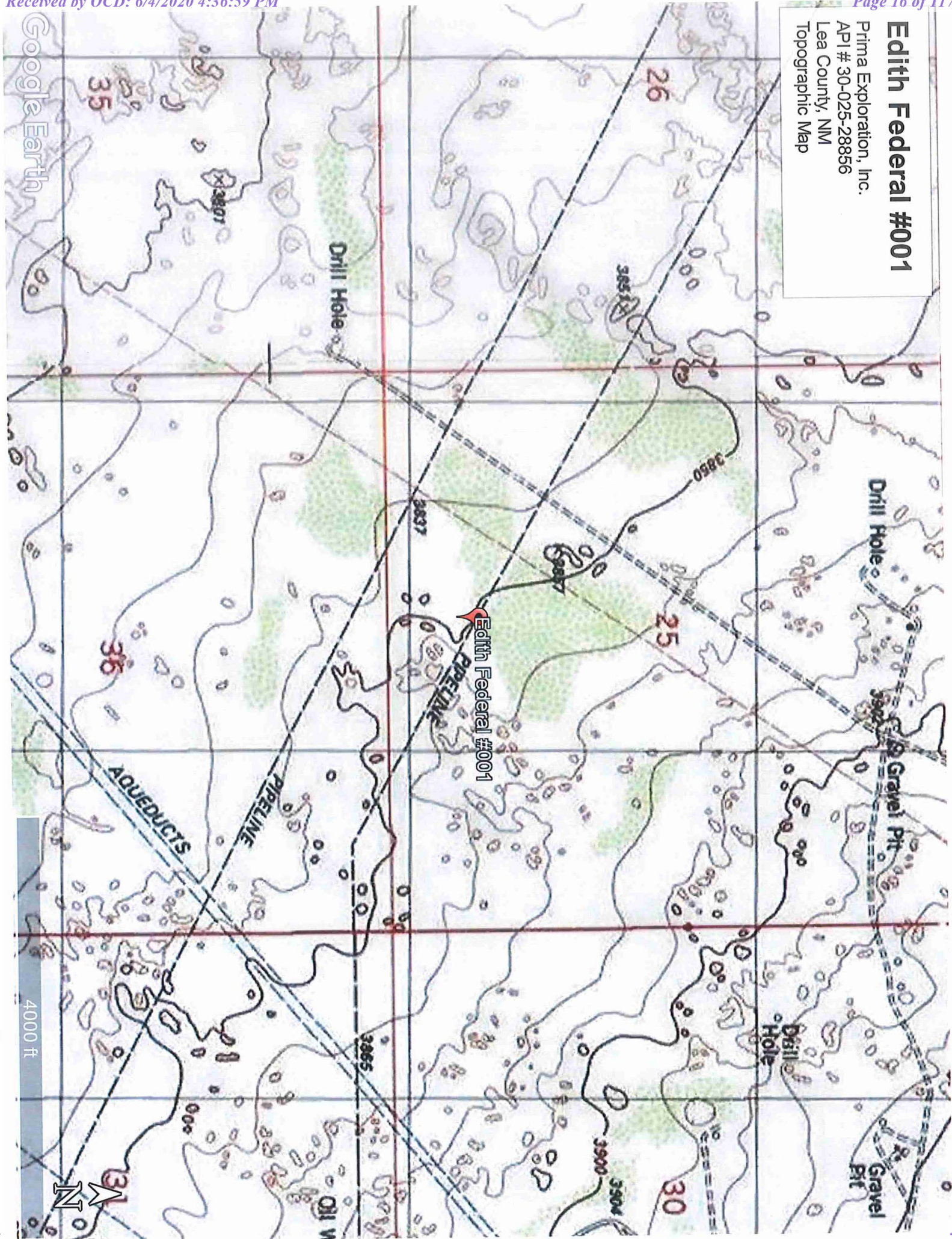
Legend

⊙ Soil Sample



Edith Federal #001

Prima Exploration, Inc.
API # 30-025-28856
Lea County, NM
Topographic Map



Edith Federal #001

Prima Exploration, Inc.
API # 30-025-28856
Lea County, NM
Karst Map

Legend

-  High
-  Low
-  Medium

Edith Federal #001



National Flood Hazard Layer FIRMette



32°43'2.64"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

32°42'32.37"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone 1
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes, Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		Digital Data Available
		No Digital Data Available
MAP PANELS		Unmapped
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/20/2020 at 12:04:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



APPENDIX II

SOIL SURVEY

GROUNDWATER DATA

Map Unit Description: Kermit soils and dune land, 0 to 12 percent slopes---Lea County, New Mexico

Lea County, New Mexico

KM—Kermit soils and dune land, 0 to 12 percent slopes

Map Unit Setting

National map unit symbol: dmpx
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Dune land: 45 percent
Kermit and similar soils: 45 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dune Land

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear, concave
Across-slope shape: Convex

Typical profile

A - 0 to 6 inches: fine sand
C - 6 to 60 inches: fine sand

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8e
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Kermit

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear, concave
Across-slope shape: Convex
Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand

Map Unit Description: Kermit soils and dune land, 0 to 12 percent slopes---Lea County, New Mexico

C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 5 to 12 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 3 percent

Gypsum, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 2.0

Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: Sandhills (R042XC022NM)

Hydric soil rating: No

Minor Components

Palomas

Percent of map unit: 3 percent

Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Pyote

Percent of map unit: 3 percent

Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Maljamar

Percent of map unit: 2 percent

Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Wink

Percent of map unit: 2 percent

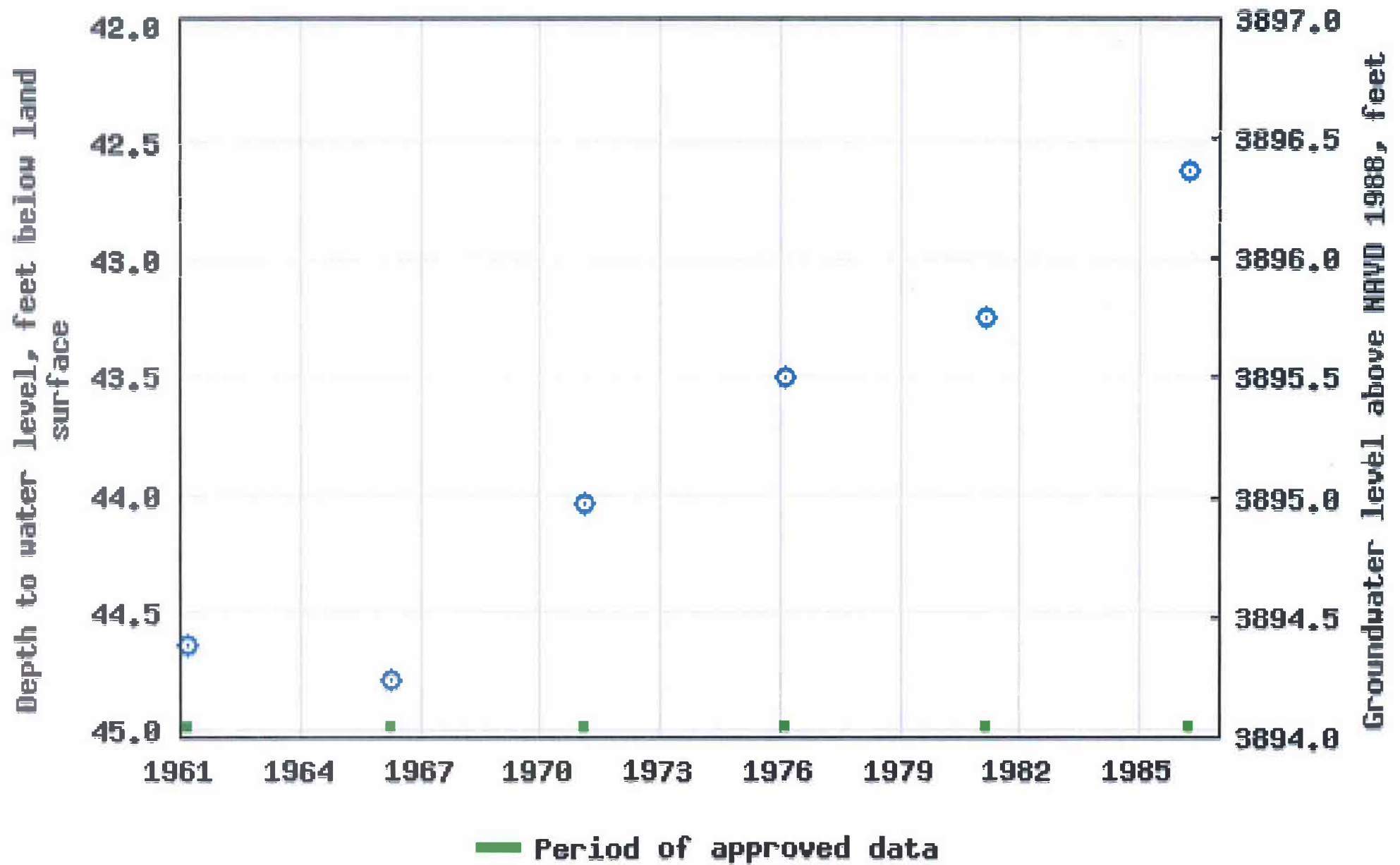
Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico

Survey Area Data: Version 16, Sep 15, 2019

USGS 324317103354401 18S.34E.30.21120

Edith Federal #001
Prima Exploration, Inc.
API # 30-025-28856
Lea County, NM
Well Proximity Map

Edith Federal #001

USGS Well Site # 324317103354401

Google Earth

1 mi







APPENDIX III

INITIAL C-141

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Prima Exploration, Inc.	OGRID 329344
Contact Name Jacqueline Buczek	Contact Telephone 303-755-5681 x109
Contact email jbuczek@primaex.com	Incident # (assigned by OCD)
Contact mailing address 250 Fillmore Street, Suite 500 Denver,	CO 80206

Location of Release Source

Latitude 32.7131958 Longitude -103.6176529
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Edith Federal #001	Site Type
Date Release Discovered 3/11/2020	API# (if applicable) 30-025-28856

Unit Letter	Section	Township	Range	County
N	25	18S	33E	Lea

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) 225	Volume Recovered (bbls) 203
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: Recycle pump timer failed, caused issue with the heater treater and pushed oil into the open top water tank. The oil spilled into the tank containment earthen berm.		

Form C-141

Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The spill is over 25 bbls.
---	--

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
 Jacqueline Buczek Reported spill to Kelsey Wade at the BLM on 3/11/2020 by phone and email
 Jacqueline Buczek Reported spill to Cristina Eads At OCD on 3/12/2020 by phone and email

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: Jacqueline Buczek Title: Petroleum Engineer

Signature: Jacqueline H Buczek Date: 3/12/2020

email: jbuczek@primaex.com Telephone: 303-755-5681 x109

OCD Only

Received by: _____ Date: _____

Form C-141

State of New Mexico
Oil Conservation Division

Page 7

Incident ID	
District RP	
Facility ID	
Application ID	

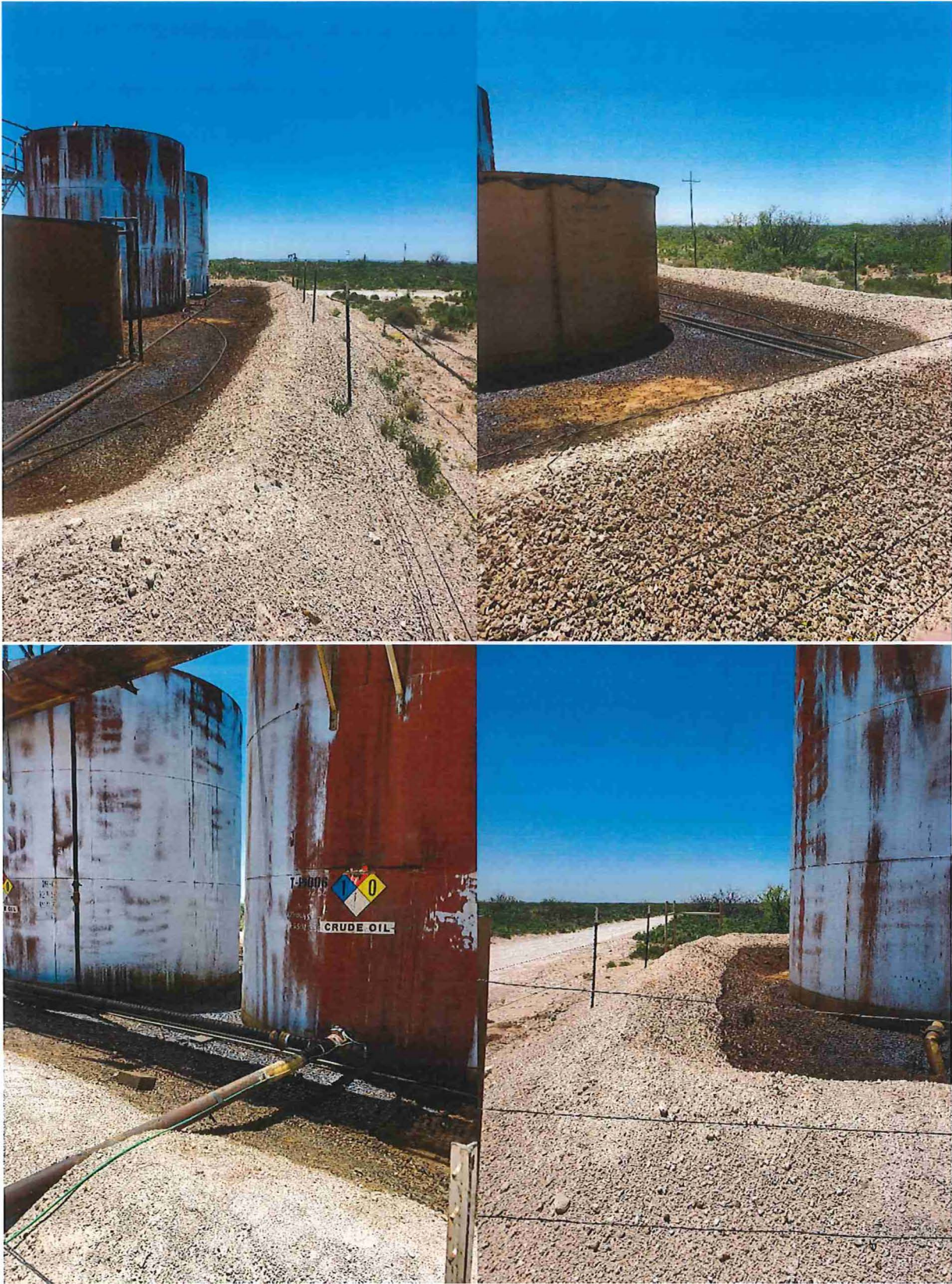
Action to date:

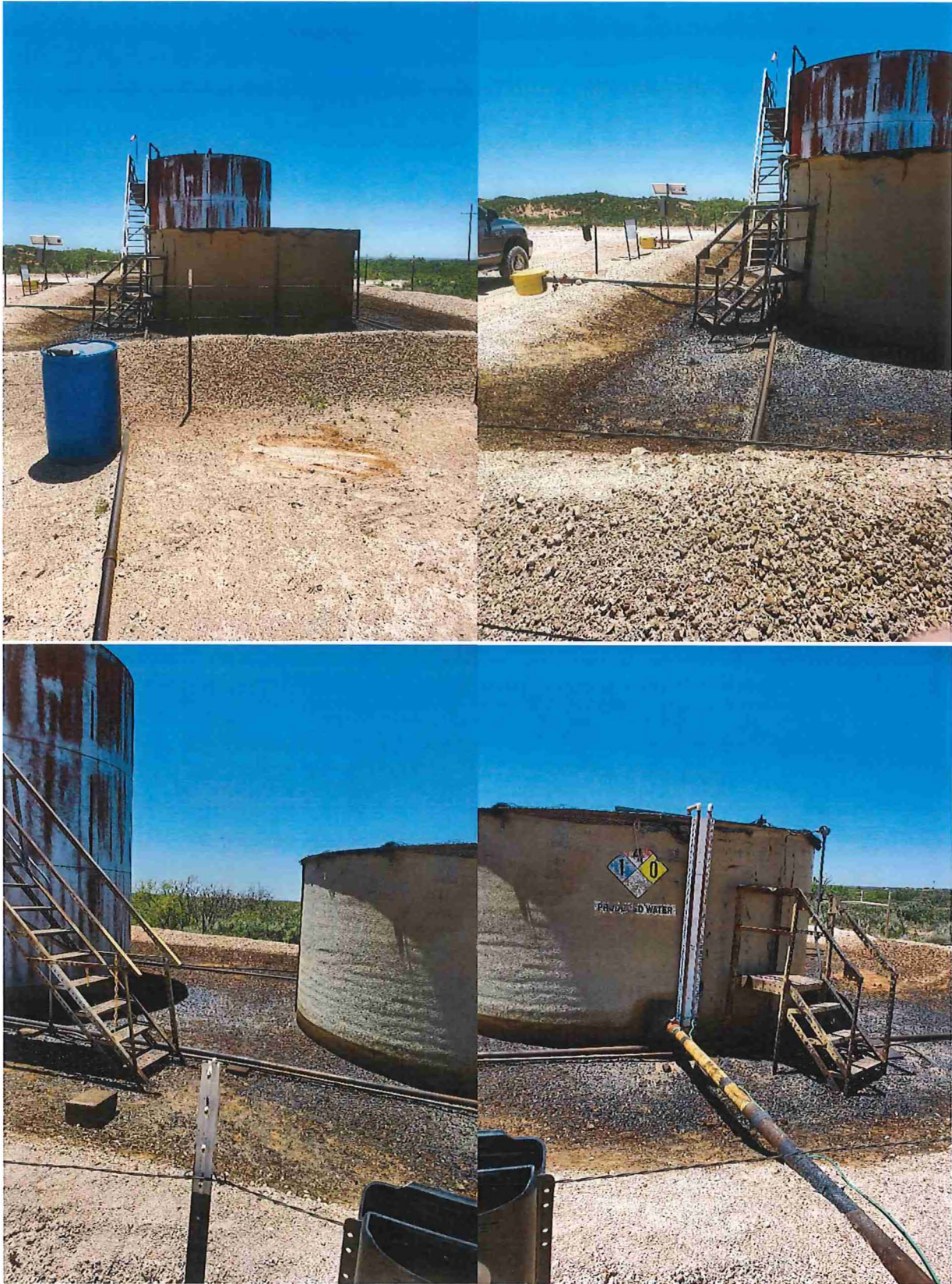
Immediately upon discovery, Prima verified the spill was contained to the tank containment earthen berm. A vac truck was used to recover as much oil as possible on 3/11/2020. 203 of the 225 bbls was recovered.



APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION







APPENDIX V

LABORATORY DATA



Certificate of Analysis Summary 660809

Penasco Services, Carlsbad, NM

Project Name: Edith Federal #001

Project Id: API #30-025-28856

Contact: Kenny Long

Project Location: NM

Date Received in Lab: Wed 05.06.2020 15:15

Report Date: 05.11.2020 09:47

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660809-001	660809-002	660809-003	660809-004	660809-005	660809-006
	Field Id:	S-1	S-1	S-1	S-1	S-2	S-2
	Depth:	0-1 ft	2- ft	3- ft	4- ft	0-1 ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00
BTEX by EPA 8021B	Extracted:	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50
	Analyzed:	05.08.2020 06:30	05.08.2020 06:51	05.07.2020 16:35	05.07.2020 16:57	05.07.2020 17:18	05.07.2020 17:39
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<0.100 0.100	<0.00990 0.00990	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Benzene		<0.100 0.100	<0.00990 0.00990	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Toluene		5.07 0.402	<0.00990 0.00990	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		17.6 0.402	<0.00990 0.00990	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		29.0 0.803	<0.0198 0.0198	0.0222 0.00398	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		14.1 0.402	<0.00990 0.00990	0.0316 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		43.1 0.402	<0.00990 0.00990	0.0538 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		65.8 0.100	<0.00990 0.00990	0.0538 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	Extracted:	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05
	Analyzed:	05.06.2020 19:30	05.06.2020 19:47	05.06.2020 19:53	05.06.2020 19:59	05.06.2020 20:05	05.06.2020 20:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		4530 99.6	36.3 9.98	23.7 10.0	31.1 10.0	12.0 9.98	<9.94 9.94
TPH By SW8015 Mod	Extracted:	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00
	Analyzed:	05.07.2020 05:23	05.07.2020 11:02	05.07.2020 05:02	05.07.2020 04:42	05.07.2020 03:21	05.07.2020 03:41
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		3000 501	96.4 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2	<50.0 50.0
Gasoline Range Hydrocarbons (GRO)		3000 501	96.4 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		22400 501	790 50.2	126 50.2	<49.8 49.8	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		1940 501	226 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2	<50.0 50.0
Total TPH		27300 501	1110 50.2	126 50.2	<49.8 49.8	<50.2 50.2	<50.0 50.0

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

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660809

Penasco Services, Carlsbad, NM

Project Name: Edith Federal #001

Project Id: API #30-025-28856

Contact: Kenny Long

Project Location: NM

Date Received in Lab: Wed 05.06.2020 15:15

Report Date: 05.11.2020 09:47

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660809-007	660809-008	660809-009	660809-010	660809-011	660809-012
	<i>Field Id:</i>	S-2	S-2	S-3	S-3	S-3	S-3
	<i>Depth:</i>	3- ft	4- ft	0-1 ft	2- ft	3- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50
	<i>Analyzed:</i>	05.07.2020 18:44	05.07.2020 19:05	05.07.2020 20:52	05.07.2020 21:13	05.07.2020 21:35	05.07.2020 21:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<0.00198 0.00198	<0.00199 0.00199	<0.0996 0.0996	2.28 0.399	<0.00971 0.00971	<0.00990 0.00990
Benzene		<0.00198 0.00198	<0.00199 0.00199	23.8 0.398	34.1 0.399	<0.00971 0.00971	<0.00990 0.00990
Toluene		<0.00198 0.00198	<0.00199 0.00199	35.4 0.398	50.8 0.399	0.606 0.00971	<0.00990 0.00990
Ethylbenzene		<0.00397 0.00397	<0.00398 0.00398	50.4 0.797	59.8 0.798	0.0390 0.0194	<0.0198 0.0198
m,p-Xylenes		<0.00198 0.00198	<0.00199 0.00199	23.5 0.398	25.5 0.399	<0.00971 0.00971	<0.00990 0.00990
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	73.9 0.398	85.3 0.399	0.0390 0.00971	<0.00990 0.00990
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	133 0.0996	172 0.399	0.645 0.00971	<0.00990 0.00990
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	133 0.0996	172 0.399	0.645 0.00971	<0.00990 0.00990
Chloride by EPA 300	<i>Extracted:</i>	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05
	<i>Analyzed:</i>	05.06.2020 20:16	05.06.2020 20:33	05.06.2020 20:39	05.06.2020 20:57	05.06.2020 21:02	05.06.2020 21:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<9.92 9.92	14.0 10.0	207 10.0	10.6 10.0	10.8 9.92	10.3 9.96
Chloride		<9.92 9.92	14.0 10.0	207 10.0	10.6 10.0	10.8 9.92	10.3 9.96
TPH By SW8015 Mod	<i>Extracted:</i>	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:10	05.06.2020 17:10	05.06.2020 17:10	05.06.2020 17:10
	<i>Analyzed:</i>	05.07.2020 04:01	05.07.2020 04:22	05.07.2020 04:42	05.07.2020 05:02	05.07.2020 11:02	05.07.2020 03:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.0 50.0	<50.1 50.1	4280 501	4800 499	<50.2 50.2	<49.9 49.9
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.1 50.1	19000 501	11300 499	301 50.2	92.6 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.1 50.1	1920 501	1120 499	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.1 50.1	25200 501	17200 499	301 50.2	92.6 49.9
Total TPH		<50.0 50.0	<50.1 50.1	25200 501	17200 499	301 50.2	92.6 49.9

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660809

Penasco Services, Carlsbad, NM

Project Name: Edith Federal #001

Project Id: API #30-025-28856

Contact: Kenny Long

Project Location: NM

Date Received in Lab: Wed 05.06.2020 15:15

Report Date: 05.11.2020 09:47

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660809-013	660809-014	660809-015	660809-016	660809-017	660809-018
	Field Id:	S-4	S-4	S-4	S-4	S-5	S-5
	Depth:	0-1 ft	2- ft	3- ft	4- ft	0-1 ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00
BTEX by EPA 8021B	Extracted:	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 09:50	05.07.2020 20:00	05.07.2020 20:00
	Analyzed:	05.07.2020 19:27	05.07.2020 19:48	05.07.2020 20:09	05.07.2020 20:31	05.08.2020 07:12	05.08.2020 07:34
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	2.93 0.400	<0.0990 0.0990
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	33.0 0.400	1.19 0.39
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	42.2 0.400	28.8 0.39
Ethylbenzene		<0.00396 0.00396	<0.00400 0.00400	<0.00400 0.00400	<0.00399 0.00399	56.0 0.800	8.64 0.792
m,p-Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	26.3 0.400	3.34 0.39
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	82.3 0.400	12.0 0.39
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	160 0.400	42.0 0.0990
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Chloride by EPA 300	Extracted:	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 18:05	05.06.2020 17:00	05.06.2020 17:00
	Analyzed:	05.06.2020 21:14	05.06.2020 21:20	05.06.2020 21:25	05.06.2020 21:31	05.06.2020 22:06	05.06.2020 22:23
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		20.7 9.96	20.0 10.1	33.5 10.0	45.3 9.94	166 9.98	22.8 10.0
TPH By SW8015 Mod	Extracted:	05.06.2020 17:10	05.06.2020 17:10	05.06.2020 17:10	05.06.2020 17:10	05.06.2020 17:10	05.07.2020 17:30
	Analyzed:	05.07.2020 03:21	05.07.2020 03:41	05.07.2020 04:01	05.07.2020 04:22	05.07.2020 05:43	05.08.2020 12:24
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9	5480 501	248 50.0
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9	21500 501	1300 50.0
Diesel Range Organics (DRO)		<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9	1880 501	138 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9	28900 501	1690 50.0
Total TPH		<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9		

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

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660809

Penasco Services, Carlsbad, NM

Project Name: Edith Federal #001

Project Id: API #30-025-28856

Contact: Kenny Long

Project Location: NM

Date Received in Lab: Wed 05.06.2020 15:15

Report Date: 05.11.2020 09:47

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660809-019	660809-020	660809-021	660809-022	660809-023	660809-024
	<i>Field Id:</i>	S-5	S-5	S-6	S-6	S-6	S-6
	<i>Depth:</i>	3- ft	4- ft	0-1 ft	2- ft	3- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00
	<i>Analyzed:</i>	05.08.2020 07:55	05.08.2020 01:30	05.08.2020 01:52	05.08.2020 02:13	05.08.2020 02:34	05.08.2020 02:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00400 0.00400	<0.00404 0.00404	<0.00399 0.00399	<0.00400 0.00400	<0.00400 0.00400	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00
	<i>Analyzed:</i>	05.06.2020 22:29	05.06.2020 22:35	05.06.2020 22:40	05.06.2020 22:58	05.06.2020 23:04	05.06.2020 23:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		10.2 10.1	<10.0 10.0	<9.94 9.94	<10.1 10.1	<9.88 9.88	18.4 9.90
TPH By SW8015 Mod	<i>Extracted:</i>	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30
	<i>Analyzed:</i>	05.08.2020 15:03	05.07.2020 23:03	05.07.2020 23:24	05.07.2020 23:44	05.08.2020 00:05	05.08.2020 08:49
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		101 50.2	79.3 50.3	<50.2 50.2	<50.2 50.2	<50.1 50.1	132 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2
Total TPH		101 50.2	79.3 50.3	<50.2 50.2	<50.2 50.2	<50.1 50.1	132 50.2

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 user of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660809

Penasco Services, Carlsbad, NM

Project Name: Edith Federal #001

Project Id: API #30-025-28856

Contact: Kenny Long

Project Location: NM

Date Received in Lab: Wed 05.06.2020 15:15

Report Date: 05.11.2020 09:47

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660809-025	660809-026	660809-027	660809-028	660809-029	660809-030
	Field Id:	S-7	S-7	S-7	S-7	S-8	S-8
	Depth:	0-1 ft	2- ft	3- ft	4- ft	0-1 ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00	05.06.2020 00:00
BTEX by EPA 8021B	Extracted:	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00	05.07.2020 20:00
	Analyzed:	05.08.2020 08:17	05.08.2020 10:25	05.08.2020 10:46	05.08.2020 03:17	05.08.2020 03:39	05.08.2020 04:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<0.0998 0.0998	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Benzene		<0.0998 0.0998	0.0136 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Toluene		3.22 0.399	0.0708 0.00202	0.0956 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		3.66 0.798	0.115 0.00403	0.00421 0.00402	<0.00402 0.00402	<0.00398 0.00398	<0.00402 0.00402
m,p-Xylenes		3.05 0.399	0.0645 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
o-Xylene		6.71 0.399	0.180 0.00202	0.00421 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		9.93 0.0998	0.264 0.00202	0.0998 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Total BTEX							
Chloride by EPA 300	Extracted:	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00
	Analyzed:	05.06.2020 23:15	05.06.2020 23:21	05.06.2020 23:27	05.06.2020 23:44	05.06.2020 23:50	05.07.2020 00:07
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		824 9.98	105 9.98	66.4 9.94	81.4 10.1	51.5 10.0	14.6 10.0
Chloride							
TPH By SW8015 Mod	Extracted:	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30
	Analyzed:	05.08.2020 11:09	05.08.2020 11:30	05.08.2020 09:08	05.08.2020 09:28	05.08.2020 09:49	05.08.2020 10:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		564 251	78.2 50.0	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3
Gasoline Range Hydrocarbons (GRO)		6500 251	700 50.0	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3
Diesel Range Organics (DRO)		729 251	69.5 50.0	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		7790 251	848 50.0	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3
Total TPH							

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.

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660809

Penasco Services, Carlsbad, NM

Project Name: Edith Federal #001

Project Id: API #30-025-28856

Contact: Kenny Long

Project Location: NM

Date Received in Lab: Wed 05.06.2020 15:15

Report Date: 05.11.2020 09:47

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660809-031	660809-032				
	Field Id:	S-8	S-8				
	Depth:	3- ft	4- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	05.06.2020 00:00	05.06.2020 00:00				
BTEX by EPA 8021B	Extracted:	05.07.2020 20:00	05.07.2020 20:00				
	Analyzed:	05.08.2020 04:21	05.08.2020 04:43				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00201 0.00201	<0.00201 0.00201				
Toluene		<0.00201 0.00201	<0.00201 0.00201				
Ethylbenzene		<0.00201 0.00201	<0.00201 0.00201				
m,pXylenes		<0.00402 0.00402	<0.00402 0.00402				
o.Xylene		<0.00201 0.00201	<0.00201 0.00201				
Total Xylenes		<0.00201 0.00201	<0.00201 0.00201				
Total BTEX		<0.00201 0.00201	<0.00201 0.00201				
Chloride by EPA 300	Extracted:	05.06.2020 17:00	05.06.2020 17:00				
	Analyzed:	05.07.2020 00:13	05.07.2020 00:19				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		10.1 9.98	27.9 9.96				
TPH By SW8015 Mod	Extracted:	05.07.2020 17:30	05.07.2020 17:30				
	Analyzed:	05.08.2020 10:29	05.07.2020 20:20				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.2 50.2				
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2				
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2				
Total TPH		<49.8 49.8	<50.2 50.2				

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Jessica Kramer

Jessica Kramer
Project Manager



Analytical Report 660809

for

Penasco Services

Project Manager: Kenny Long

Edith Federal #001

API #30-025-28856

05.11.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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)



05.11.2020

Project Manager: **Kenny Long**

Penasco Services

1602 E Green St

Carlsbad, NM 88220

Reference: XENCO Report No(s): **660809**

Edith Federal #001

Project Address: NM

Kenny Long:

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) 660809. 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. 660809 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1	S	05.06.2020 00:00	0 - 1 ft	660809-001
S-1	S	05.06.2020 00:00	2 ft	660809-002
S-1	S	05.06.2020 00:00	3 ft	660809-003
S-1	S	05.06.2020 00:00	4 ft	660809-004
S-2	S	05.06.2020 00:00	0 - 1 ft	660809-005
S-2	S	05.06.2020 00:00	2 ft	660809-006
S-2	S	05.06.2020 00:00	3 ft	660809-007
S-2	S	05.06.2020 00:00	4 ft	660809-008
S-3	S	05.06.2020 00:00	0 - 1 ft	660809-009
S-3	S	05.06.2020 00:00	2 ft	660809-010
S-3	S	05.06.2020 00:00	3 ft	660809-011
S-3	S	05.06.2020 00:00	4 ft	660809-012
S-4	S	05.06.2020 00:00	0 - 1 ft	660809-013
S-4	S	05.06.2020 00:00	2 ft	660809-014
S-4	S	05.06.2020 00:00	3 ft	660809-015
S-4	S	05.06.2020 00:00	4 ft	660809-016
S-5	S	05.06.2020 00:00	0 - 1 ft	660809-017
S-5	S	05.06.2020 00:00	2 ft	660809-018
S-5	S	05.06.2020 00:00	3 ft	660809-019
S-5	S	05.06.2020 00:00	4 ft	660809-020
S-6	S	05.06.2020 00:00	0 - 1 ft	660809-021
S-6	S	05.06.2020 00:00	2 ft	660809-022
S-6	S	05.06.2020 00:00	3 ft	660809-023
S-6	S	05.06.2020 00:00	4 ft	660809-024
S-7	S	05.06.2020 00:00	0 - 1 ft	660809-025
S-7	S	05.06.2020 00:00	2 ft	660809-026
S-7	S	05.06.2020 00:00	3 ft	660809-027
S-7	S	05.06.2020 00:00	4 ft	660809-028
S-8	S	05.06.2020 00:00	0 - 1 ft	660809-029
S-8	S	05.06.2020 00:00	2 ft	660809-030
S-8	S	05.06.2020 00:00	3 ft	660809-031
S-8	S	05.06.2020 00:00	4 ft	660809-032



CASE NARRATIVE

Client Name: Penasco Services

Project Name: Edith Federal #001

Project ID: *API #30-025-28856*
Work Order Number(s): *660809*

Report Date: *05.11.2020*
Date Received: *05.06.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1
Lab Sample Id: 660809-001

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 0 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4530	99.6	mg/kg	05.06.2020 19:30		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	3000	501	mg/kg	05.07.2020 05:23		10
Diesel Range Organics (DRO)	C10C28DRO	22400	501	mg/kg	05.07.2020 05:23		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1940	501	mg/kg	05.07.2020 05:23		10
Total TPH	PHC635	27300	501	mg/kg	05.07.2020 05:23		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.07.2020 05:23	
o-Terphenyl	84-15-1	81	%	70-135	05.07.2020 05:23	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-001

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.100	0.100	mg/kg	05.08.2020 06:30	U	200
Toluene	108-88-3	5.07	0.402	mg/kg	05.08.2020 06:30		200
Ethylbenzene	100-41-4	17.6	0.402	mg/kg	05.08.2020 06:30		200
m,p-Xylenes	179601-23-1	29.0	0.803	mg/kg	05.08.2020 06:30		200
o-Xylene	95-47-6	14.1	0.402	mg/kg	05.08.2020 06:30		200
Total Xylenes	1330-20-7	43.1	0.402	mg/kg	05.08.2020 06:30		200
Total BTEX		65.8	0.100	mg/kg	05.08.2020 06:30		200
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.08.2020 06:30		
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.08.2020 06:30		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1
Lab Sample Id: 660809-002

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.3	9.98	mg/kg	05.06.2020 19:47		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	96.4	50.2	mg/kg	05.07.2020 11:02		1
Diesel Range Organics (DRO)	C10C28DRO	790	50.2	mg/kg	05.07.2020 11:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	226	50.2	mg/kg	05.07.2020 11:02		1
Total TPH	PHC635	1110	50.2	mg/kg	05.07.2020 11:02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	05.07.2020 11:02	
o-Terphenyl	84-15-1	134	%	70-135	05.07.2020 11:02	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1
Lab Sample Id: 660809-002

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00990	0.00990	mg/kg	05.08.2020 06:51	U	5
Toluene	108-88-3	<0.00990	0.00990	mg/kg	05.08.2020 06:51	U	5
Ethylbenzene	100-41-4	<0.00990	0.00990	mg/kg	05.08.2020 06:51	U	5
m,p-Xylenes	179601-23-1	<0.0198	0.0198	mg/kg	05.08.2020 06:51	U	5
o-Xylene	95-47-6	<0.00990	0.00990	mg/kg	05.08.2020 06:51	U	5
Total Xylenes	1330-20-7	<0.00990	0.00990	mg/kg	05.08.2020 06:51	U	5
Total BTEX		<0.00990	0.00990	mg/kg	05.08.2020 06:51	U	5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	05.08.2020 06:51		
1,4-Difluorobenzene	540-36-3	110	%	70-130	05.08.2020 06:51		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-003

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.7	10.0	mg/kg	05.06.2020 19:53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 05:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	126	50.2	mg/kg	05.07.2020 05:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 05:02	U	1
Total TPH	PHC635	126	50.2	mg/kg	05.07.2020 05:02		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	125	%	70-135	05.07.2020 05:02		
o-Terphenyl	84-15-1	133	%	70-135	05.07.2020 05:02		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-003

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.07.2020 16:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.07.2020 16:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.07.2020 16:35	U	1
m,p-Xylenes	179601-23-1	0.0222	0.00398	mg/kg	05.07.2020 16:35		1
o-Xylene	95-47-6	0.0316	0.00199	mg/kg	05.07.2020 16:35		1
Total Xylenes	1330-20-7	0.0538	0.00199	mg/kg	05.07.2020 16:35		1
Total BTEX		0.0538	0.00199	mg/kg	05.07.2020 16:35		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	05.07.2020 16:35		
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.07.2020 16:35		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1
Lab Sample Id: 660809-004

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.1	10.0	mg/kg	05.06.2020 19:59		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.07.2020 04:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.07.2020 04:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.07.2020 04:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.07.2020 04:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	05.07.2020 04:42	
o-Terphenyl	84-15-1	131	%	70-135	05.07.2020 04:42	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-1

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-004

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.07.2020 16:57	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.07.2020 16:57	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.07.2020 16:57	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.07.2020 16:57	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.07.2020 16:57	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.07.2020 16:57	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.07.2020 16:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.07.2020 16:57		
1,4-Difluorobenzene	540-36-3	95	%	70-130	05.07.2020 16:57		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-005 Date Collected: 05.06.2020 00:00 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 18:05 Basis: Wet Weight
 Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.0	9.98	mg/kg	05.06.2020 20:05		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 03:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 03:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 03:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 03:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	05.07.2020 03:21	
o-Terphenyl	84-15-1	133	%	70-135	05.07.2020 03:21	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2
Lab Sample Id: 660809-005

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.07.2020 17:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.07.2020 17:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.07.2020 17:18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.07.2020 17:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.07.2020 17:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.07.2020 17:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.07.2020 17:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.07.2020 17:18		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.07.2020 17:18		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-006

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	05.06.2020 20:10	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.07.2020 03:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.07.2020 03:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.07.2020 03:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.07.2020 03:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	05.07.2020 03:41	
o-Terphenyl	84-15-1	132	%	70-135	05.07.2020 03:41	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-006

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.07.2020 17:39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.07.2020 17:39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.07.2020 17:39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.07.2020 17:39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.07.2020 17:39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.07.2020 17:39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.07.2020 17:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.07.2020 17:39		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.07.2020 17:39		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-007 Date Collected: 05.06.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 18:05 Basis: Wet Weight
 Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	05.06.2020 20:16	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.07.2020 04:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.07.2020 04:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.07.2020 04:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.07.2020 04:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	05.07.2020 04:01	
o-Terphenyl	84-15-1	132	%	70-135	05.07.2020 04:01	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-007

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.07.2020 18:44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.07.2020 18:44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.07.2020 18:44	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.07.2020 18:44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.07.2020 18:44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.07.2020 18:44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.07.2020 18:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.07.2020 18:44		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.07.2020 18:44		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2
Lab Sample Id: 660809-008

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.0	10.0	mg/kg	05.06.2020 20:33		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.07.2020 04:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.07.2020 04:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.07.2020 04:22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.07.2020 04:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	05.07.2020 04:22	
o-Terphenyl	84-15-1	130	%	70-135	05.07.2020 04:22	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-2

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-008

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.07.2020 19:05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.07.2020 19:05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.07.2020 19:05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.07.2020 19:05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.07.2020 19:05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.07.2020 19:05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.07.2020 19:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.07.2020 19:05		
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.07.2020 19:05		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3
Lab Sample Id: 660809-009

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 0 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	207	10.0	mg/kg	05.06.2020 20:39		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:10

Basis: Wet Weight

Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	4280	501	mg/kg	05.07.2020 04:42		10
Diesel Range Organics (DRO)	C10C28DRO	19000	501	mg/kg	05.07.2020 04:42		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1920	501	mg/kg	05.07.2020 04:42		10
Total TPH	PHC635	25200	501	mg/kg	05.07.2020 04:42		10
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	86	%	70-135	05.07.2020 04:42		
o-Terphenyl	84-15-1	122	%	70-135	05.07.2020 04:42		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-009

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0996	0.0996	mg/kg	05.07.2020 20:52	U	200
Toluene	108-88-3	23.8	0.398	mg/kg	05.07.2020 20:52		200
Ethylbenzene	100-41-4	35.4	0.398	mg/kg	05.07.2020 20:52		200
m,p-Xylenes	179601-23-1	50.4	0.797	mg/kg	05.07.2020 20:52		200
o-Xylene	95-47-6	23.5	0.398	mg/kg	05.07.2020 20:52		200
Total Xylenes	1330-20-7	73.9	0.398	mg/kg	05.07.2020 20:52		200
Total BTEX		133	0.0996	mg/kg	05.07.2020 20:52		200
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.07.2020 20:52		
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.07.2020 20:52		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3
Lab Sample Id: 660809-010

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.6	10.0	mg/kg	05.06.2020 20:57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:10

Basis: Wet Weight

Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	4800	499	mg/kg	05.07.2020 05:02		10
Diesel Range Organics (DRO)	C10C28DRO	11300	499	mg/kg	05.07.2020 05:02		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1120	499	mg/kg	05.07.2020 05:02		10
Total TPH	PHC635	17200	499	mg/kg	05.07.2020 05:02		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	05.07.2020 05:02	
o-Terphenyl	84-15-1	125	%	70-135	05.07.2020 05:02	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-010

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	2.28	0.399	mg/kg	05.07.2020 21:13		200
Toluene	108-88-3	34.1	0.399	mg/kg	05.07.2020 21:13		200
Ethylbenzene	100-41-4	50.8	0.399	mg/kg	05.07.2020 21:13		200
m,p-Xylenes	179601-23-1	59.8	0.798	mg/kg	05.07.2020 21:13		200
o-Xylene	95-47-6	25.5	0.399	mg/kg	05.07.2020 21:13		200
Total Xylenes	1330-20-7	85.3	0.399	mg/kg	05.07.2020 21:13		200
Total BTEX		172	0.399	mg/kg	05.07.2020 21:13		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	05.07.2020 21:13	
1,4-Difluorobenzene	540-36-3	94	%	70-130	05.07.2020 21:13	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3	Matrix: Soil	Date Received: 05.06.2020 15:15
Lab Sample Id: 660809-011	Date Collected: 05.06.2020 00:00	Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 18:05	Basis: Wet Weight
Seq Number: 3125247		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.8	9.92	mg/kg	05.06.2020 21:02		1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 05.06.2020 17:10	Basis: Wet Weight
Seq Number: 3125432		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 11:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	301	50.2	mg/kg	05.07.2020 11:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 11:02	U	1
Total TPH	PHC635	301	50.2	mg/kg	05.07.2020 11:02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.07.2020 11:02	
o-Terphenyl	84-15-1	98	%	70-135	05.07.2020 11:02	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-011

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00971	0.00971	mg/kg	05.07.2020 21:35	U	1
Toluene	108-88-3	<0.00971	0.00971	mg/kg	05.07.2020 21:35	U	1
Ethylbenzene	100-41-4	0.606	0.00971	mg/kg	05.07.2020 21:35		1
m,p-Xylenes	179601-23-1	0.0390	0.0194	mg/kg	05.07.2020 21:35		1
o-Xylene	95-47-6	<0.00971	0.00971	mg/kg	05.07.2020 21:35	U	1
Total Xylenes	1330-20-7	0.0390	0.00971	mg/kg	05.07.2020 21:35		1
Total BTEX		0.645	0.00971	mg/kg	05.07.2020 21:35		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.07.2020 21:35		
4-Bromofluorobenzene	460-00-4	130	%	70-130	05.07.2020 21:35		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3
Lab Sample Id: 660809-012

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.3	9.96	mg/kg	05.06.2020 21:08		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:10

Basis: Wet Weight

Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.07.2020 03:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	92.6	49.9	mg/kg	05.07.2020 03:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.07.2020 03:01	U	1
Total TPH	PHC635	92.6	49.9	mg/kg	05.07.2020 03:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.07.2020 03:01	
o-Terphenyl	84-15-1	95	%	70-135	05.07.2020 03:01	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-3

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-012

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00990	0.00990	mg/kg	05.07.2020 21:56	U	1
Toluene	108-88-3	<0.00990	0.00990	mg/kg	05.07.2020 21:56	U	1
Ethylbenzene	100-41-4	<0.00990	0.00990	mg/kg	05.07.2020 21:56	U	1
m,p-Xylenes	179601-23-1	<0.0198	0.0198	mg/kg	05.07.2020 21:56	U	1
o-Xylene	95-47-6	<0.00990	0.00990	mg/kg	05.07.2020 21:56	U	1
Total Xylenes	1330-20-7	<0.00990	0.00990	mg/kg	05.07.2020 21:56	U	1
Total BTEX		<0.00990	0.00990	mg/kg	05.07.2020 21:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.07.2020 21:56		
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.07.2020 21:56		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-013 Date Collected: 05.06.2020 00:00 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 18:05 Basis: Wet Weight
 Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.7	9.96	mg/kg	05.06.2020 21:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.06.2020 17:10 Basis: Wet Weight
 Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.07.2020 03:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.07.2020 03:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.07.2020 03:21	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.07.2020 03:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.07.2020 03:21	
o-Terphenyl	84-15-1	93	%	70-135	05.07.2020 03:21	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-013

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.07.2020 19:27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.07.2020 19:27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.07.2020 19:27	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.07.2020 19:27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.07.2020 19:27	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.07.2020 19:27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.07.2020 19:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.07.2020 19:27		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.07.2020 19:27		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4
Lab Sample Id: 660809-014

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 18:05

Basis: Wet Weight

Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.0	10.1	mg/kg	05.06.2020 21:20		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:10

Basis: Wet Weight

Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.07.2020 03:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.07.2020 03:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.07.2020 03:41	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.07.2020 03:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	05.07.2020 03:41	
o-Terphenyl	84-15-1	93	%	70-135	05.07.2020 03:41	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-014

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.07.2020 19:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.07.2020 19:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.07.2020 19:48	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.07.2020 19:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.07.2020 19:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.07.2020 19:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.07.2020 19:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.07.2020 19:48		
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.07.2020 19:48		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-015 Date Collected: 05.06.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 18:05 Basis: Wet Weight
 Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.5	10.0	mg/kg	05.06.2020 21:25		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.06.2020 17:10 Basis: Wet Weight
 Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.07.2020 04:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.07.2020 04:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.07.2020 04:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.07.2020 04:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.07.2020 04:01	
o-Terphenyl	84-15-1	95	%	70-135	05.07.2020 04:01	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-015

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.07.2020 20:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.07.2020 20:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.07.2020 20:09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.07.2020 20:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.07.2020 20:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.07.2020 20:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.07.2020 20:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.07.2020 20:09		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.07.2020 20:09		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-016 Date Collected: 05.06.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 18:05 Basis: Wet Weight
 Seq Number: 3125247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	45.3	9.94	mg/kg	05.06.2020 21:31		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.06.2020 17:10 Basis: Wet Weight
 Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.07.2020 04:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.07.2020 04:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.07.2020 04:22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.07.2020 04:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	05.07.2020 04:22	
o-Terphenyl	84-15-1	94	%	70-135	05.07.2020 04:22	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-4

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-016

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 09:50

Basis: Wet Weight

Seq Number: 3125400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.07.2020 20:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.07.2020 20:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.07.2020 20:31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.07.2020 20:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.07.2020 20:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.07.2020 20:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.07.2020 20:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.07.2020 20:31		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.07.2020 20:31		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-017

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	9.98	mg/kg	05.06.2020 22:06		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.06.2020 17:10

Basis: Wet Weight

Seq Number: 3125432

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	5480	501	mg/kg	05.07.2020 05:43		10
Diesel Range Organics (DRO)	C10C28DRO	21500	501	mg/kg	05.07.2020 05:43		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1880	501	mg/kg	05.07.2020 05:43		10
Total TPH	PHC635	28900	501	mg/kg	05.07.2020 05:43		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.07.2020 05:43	
o-Terphenyl	84-15-1	123	%	70-135	05.07.2020 05:43	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-017

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	2.93	0.400	mg/kg	05.08.2020 07:12		200
Toluene	108-88-3	33.0	0.400	mg/kg	05.08.2020 07:12		200
Ethylbenzene	100-41-4	42.2	0.400	mg/kg	05.08.2020 07:12		200
m,p-Xylenes	179601-23-1	56.0	0.800	mg/kg	05.08.2020 07:12		200
o-Xylene	95-47-6	26.3	0.400	mg/kg	05.08.2020 07:12		200
Total Xylenes	1330-20-7	82.3	0.400	mg/kg	05.08.2020 07:12		200
Total BTEX		160	0.400	mg/kg	05.08.2020 07:12		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	05.08.2020 07:12	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.08.2020 07:12	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5
Lab Sample Id: 660809-018

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.8	10.0	mg/kg	05.06.2020 22:23		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.07.2020 17:30

Basis: Wet Weight

Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	248	50.0	mg/kg	05.08.2020 12:24		1
Diesel Range Organics (DRO)	C10C28DRO	1300	50.0	mg/kg	05.08.2020 12:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	138	50.0	mg/kg	05.08.2020 12:24		1
Total TPH	PHC635	1690	50.0	mg/kg	05.08.2020 12:24		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	116	%	70-135	05.08.2020 12:24		
o-Terphenyl	84-15-1	113	%	70-135	05.08.2020 12:24		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-018

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0990	0.0990	mg/kg	05.08.2020 07:34	U	200
Toluene	108-88-3	1.19	0.396	mg/kg	05.08.2020 07:34		200
Ethylbenzene	100-41-4	28.8	0.396	mg/kg	05.08.2020 07:34		200
m,p-Xylenes	179601-23-1	8.64	0.792	mg/kg	05.08.2020 07:34		200
o-Xylene	95-47-6	3.34	0.396	mg/kg	05.08.2020 07:34		200
Total Xylenes	1330-20-7	12.0	0.396	mg/kg	05.08.2020 07:34		200
Total BTEX		42.0	0.0990	mg/kg	05.08.2020 07:34		200
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	05.08.2020 07:34		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 07:34		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-019

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 17:00

Basis: Wet Weight

Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.2	10.1	mg/kg	05.06.2020 22:29		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.07.2020 17:30

Basis: Wet Weight

Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.08.2020 15:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	101	50.2	mg/kg	05.08.2020 15:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.08.2020 15:03	U	1
Total TPH	PHC635	101	50.2	mg/kg	05.08.2020 15:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	05.08.2020 15:03	
o-Terphenyl	84-15-1	80	%	70-135	05.08.2020 15:03	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-019

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.08.2020 07:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.08.2020 07:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.08.2020 07:55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.08.2020 07:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.08.2020 07:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.08.2020 07:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.08.2020 07:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.08.2020 07:55		
4-Bromofluorobenzene	460-00-4	113	%	70-130	05.08.2020 07:55		



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Penasco Services, Carlsbad, NM

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Sample Id: S-5 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-020 Date Collected: 05.06.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	05.06.2020 22:35	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.07.2020 23:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	79.3	50.3	mg/kg	05.07.2020 23:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.07.2020 23:03	U	1
Total TPH	PHC635	79.3	50.3	mg/kg	05.07.2020 23:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	05.07.2020 23:03	
o-Terphenyl	84-15-1	101	%	70-135	05.07.2020 23:03	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-5
Lab Sample Id: 660809-020

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.08.2020 01:30	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.08.2020 01:30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.08.2020 01:30	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.08.2020 01:30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.08.2020 01:30	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.08.2020 01:30	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.08.2020 01:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.08.2020 01:30		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 01:30		



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Penasco Services, Carlsbad, NM

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Sample Id: S-6 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-021 Date Collected: 05.06.2020 00:00 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	05.06.2020 22:40	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 23:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 23:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 23:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 23:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	05.07.2020 23:24	
o-Terphenyl	84-15-1	98	%	70-135	05.07.2020 23:24	



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Penasco Services, Carlsbad, NM

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Sample Id: S-6

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-021

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.08.2020 01:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.08.2020 01:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.08.2020 01:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.08.2020 01:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.08.2020 01:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.08.2020 01:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.08.2020 01:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 01:52		
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.08.2020 01:52		



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Penasco Services, Carlsbad, NM

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Sample Id: S-6 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-022 Date Collected: 05.06.2020 00:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	05.06.2020 22:58	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 23:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 23:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 23:44	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 23:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	05.07.2020 23:44	
o-Terphenyl	84-15-1	101	%	70-135	05.07.2020 23:44	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-6

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-022

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.08.2020 02:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.08.2020 02:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.08.2020 02:13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.08.2020 02:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.08.2020 02:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.08.2020 02:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.08.2020 02:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.08.2020 02:13		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 02:13		



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Penasco Services, Carlsbad, NM

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Sample Id: S-6	Matrix: Soil	Date Received: 05.06.2020 15:15
Lab Sample Id: 660809-023	Date Collected: 05.06.2020 00:00	Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 17:00	Basis: Wet Weight
Seq Number: 3125251		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	05.06.2020 23:04	U	1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 05.07.2020 17:30	Basis: Wet Weight
Seq Number: 3125473		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.08.2020 00:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.08.2020 00:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.08.2020 00:05	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.08.2020 00:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	05.08.2020 00:05	
o-Terphenyl	84-15-1	99	%	70-135	05.08.2020 00:05	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-6

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-023

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.08.2020 02:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.08.2020 02:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.08.2020 02:34	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.08.2020 02:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.08.2020 02:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.08.2020 02:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.08.2020 02:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.08.2020 02:34		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 02:34		



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-6 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-024 Date Collected: 05.06.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.4	9.90	mg/kg	05.06.2020 23:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.08.2020 08:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	132	50.2	mg/kg	05.08.2020 08:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.08.2020 08:49	U	1
Total TPH	PHC635	132	50.2	mg/kg	05.08.2020 08:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	05.08.2020 08:49	
o-Terphenyl	84-15-1	119	%	70-135	05.08.2020 08:49	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-6

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-024

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 02:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 02:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.08.2020 02:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.08.2020 02:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 02:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.08.2020 02:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.08.2020 02:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 02:56		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.08.2020 02:56		



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Sample Id: S-7	Matrix: Soil	Date Received: 05.06.2020 15:15
Lab Sample Id: 660809-025	Date Collected: 05.06.2020 00:00	Sample Depth: 0 - 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 17:00	Basis: Wet Weight
Seq Number: 3125251		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	824	9.98	mg/kg	05.06.2020 23:15		1

Analytical Method: TPH By SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Date Prep: 05.07.2020 17:30
Seq Number: 3125473	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	564	251	mg/kg	05.08.2020 11:09		5
Diesel Range Organics (DRO)	C10C28DRO	6500	251	mg/kg	05.08.2020 11:09		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	729	251	mg/kg	05.08.2020 11:09		5
Total TPH	PHC635	7790	251	mg/kg	05.08.2020 11:09		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.08.2020 11:09	
o-Terphenyl	84-15-1	111	%	70-135	05.08.2020 11:09	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-025

Date Collected: 05.06.2020 00:00

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0998	0.0998	mg/kg	05.08.2020 08:17	U	200
Toluene	108-88-3	<0.0998	0.0998	mg/kg	05.08.2020 08:17	U	200
Ethylbenzene	100-41-4	3.22	0.399	mg/kg	05.08.2020 08:17		200
m,p-Xylenes	179601-23-1	3.66	0.798	mg/kg	05.08.2020 08:17		200
o-Xylene	95-47-6	3.05	0.399	mg/kg	05.08.2020 08:17		200
Total Xylenes	1330-20-7	6.71	0.399	mg/kg	05.08.2020 08:17		200
Total BTEX		9.93	0.0998	mg/kg	05.08.2020 08:17		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.08.2020 08:17	
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.08.2020 08:17	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-026 Date Collected: 05.06.2020 00:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	105	9.98	mg/kg	05.06.2020 23:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	78.2	50.0	mg/kg	05.08.2020 11:30		1
Diesel Range Organics (DRO)	C10C28DRO	700	50.0	mg/kg	05.08.2020 11:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	69.5	50.0	mg/kg	05.08.2020 11:30		1
Total TPH	PHC635	848	50.0	mg/kg	05.08.2020 11:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.08.2020 11:30	
o-Terphenyl	84-15-1	103	%	70-135	05.08.2020 11:30	



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Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-026

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.08.2020 10:25	U	1
Toluene	108-88-3	0.0136	0.00202	mg/kg	05.08.2020 10:25		1
Ethylbenzene	100-41-4	0.0708	0.00202	mg/kg	05.08.2020 10:25		1
m,p-Xylenes	179601-23-1	0.115	0.00403	mg/kg	05.08.2020 10:25		1
o-Xylene	95-47-6	0.0645	0.00202	mg/kg	05.08.2020 10:25		1
Total Xylenes	1330-20-7	0.180	0.00202	mg/kg	05.08.2020 10:25		1
Total BTEX		0.264	0.00202	mg/kg	05.08.2020 10:25		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.08.2020 10:25		
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.08.2020 10:25		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-027 Date Collected: 05.06.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.4	9.94	mg/kg	05.06.2020 23:27		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.08.2020 09:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.08.2020 09:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.08.2020 09:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.08.2020 09:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.08.2020 09:08	
o-Terphenyl	84-15-1	108	%	70-135	05.08.2020 09:08	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-027

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 10:46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 10:46	U	1
Ethylbenzene	100-41-4	0.0956	0.00201	mg/kg	05.08.2020 10:46		1
m,p-Xylenes	179601-23-1	0.00421	0.00402	mg/kg	05.08.2020 10:46		1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 10:46	U	1
Total Xylenes	1330-20-7	0.00421	0.00201	mg/kg	05.08.2020 10:46		1
Total BTEX		0.0998	0.00201	mg/kg	05.08.2020 10:46		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	05.08.2020 10:46		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.08.2020 10:46		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7	Matrix: Soil	Date Received: 05.06.2020 15:15
Lab Sample Id: 660809-028	Date Collected: 05.06.2020 00:00	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 17:00	Basis: Wet Weight
Seq Number: 3125251		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.4	10.1	mg/kg	05.06.2020 23:44		1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 05.07.2020 17:30	Basis: Wet Weight
Seq Number: 3125473		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.08.2020 09:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.08.2020 09:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.08.2020 09:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.08.2020 09:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	05.08.2020 09:28	
o-Terphenyl	84-15-1	100	%	70-135	05.08.2020 09:28	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-7

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-028

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 03:17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 03:17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.08.2020 03:17	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.08.2020 03:17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 03:17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.08.2020 03:17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.08.2020 03:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 03:17		
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.08.2020 03:17		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-029 Date Collected: 05.06.2020 00:00 Sample Depth: 0 - 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.5	10.0	mg/kg	05.06.2020 23:50		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.08.2020 09:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.08.2020 09:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.08.2020 09:49	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.08.2020 09:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.08.2020 09:49	
o-Terphenyl	84-15-1	104	%	70-135	05.08.2020 09:49	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8
Lab Sample Id: 660809-029

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.06.2020 15:15
Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.08.2020 03:39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.08.2020 03:39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.08.2020 03:39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.08.2020 03:39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.08.2020 03:39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.08.2020 03:39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.08.2020 03:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 03:39		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.08.2020 03:39		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8	Matrix: Soil	Date Received: 05.06.2020 15:15
Lab Sample Id: 660809-030	Date Collected: 05.06.2020 00:00	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.06.2020 17:00	Basis: Wet Weight
Seq Number: 3125251		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.6	10.0	mg/kg	05.07.2020 00:07		1

Analytical Method: TPH By SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 05.07.2020 17:30	Basis: Wet Weight
Seq Number: 3125473		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.08.2020 10:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.08.2020 10:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.08.2020 10:09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.08.2020 10:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	05.08.2020 10:09	
o-Terphenyl	84-15-1	103	%	70-135	05.08.2020 10:09	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-030

Date Collected: 05.06.2020 00:00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 04:00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 04:00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.08.2020 04:00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.08.2020 04:00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 04:00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.08.2020 04:00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.08.2020 04:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.08.2020 04:00		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.08.2020 04:00		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-031 Date Collected: 05.06.2020 00:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	9.98	mg/kg	05.07.2020 00:13		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.08.2020 10:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.08.2020 10:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.08.2020 10:29	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.08.2020 10:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	05.08.2020 10:29	
o-Terphenyl	84-15-1	102	%	70-135	05.08.2020 10:29	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-031

Date Collected: 05.06.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 04:21	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 04:21	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.08.2020 04:21	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.08.2020 04:21	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 04:21	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.08.2020 04:21	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.08.2020 04:21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.08.2020 04:21		
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.08.2020 04:21		



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8 Matrix: Soil Date Received: 05.06.2020 15:15
 Lab Sample Id: 660809-032 Date Collected: 05.06.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.06.2020 17:00 Basis: Wet Weight
 Seq Number: 3125251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.9	9.96	mg/kg	05.07.2020 00:19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 20:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 20:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 20:20	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 20:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	05.07.2020 20:20	
o-Terphenyl	84-15-1	73	%	70-135	05.07.2020 20:20	



Certificate of Analytical Results 660809

Penasco Services, Carlsbad, NM

Edith Federal #001

Sample Id: S-8

Matrix: Soil

Date Received: 05.06.2020 15:15

Lab Sample Id: 660809-032

Date Collected: 05.06.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 20:00

Basis: Wet Weight

Seq Number: 3125465

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 04:43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 04:43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.08.2020 04:43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.08.2020 04:43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 04:43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.08.2020 04:43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.08.2020 04:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.08.2020 04:43		
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.08.2020 04:43		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



QC Summary 660809

Penasco Services
 Edith Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3125251

MB Sample Id: 7702862-1-BLK

Matrix: Solid

LCS Sample Id: 7702862-1-BKS

Prep Method: E300P

Date Prep: 05.06.2020

LCSD Sample Id: 7702862-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	250	100	90-110	0	20	mg/kg	05.06.2020 21:54	

Analytical Method: Chloride by EPA 300

Seq Number: 3125247

MB Sample Id: 7702861-1-BLK

Matrix: Solid

LCS Sample Id: 7702861-1-BKS

Prep Method: E300P

Date Prep: 05.06.2020

LCSD Sample Id: 7702861-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	250	100	90-110	0	20	mg/kg	05.06.2020 18:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3125251

Parent Sample Id: 660809-017

Matrix: Soil

MS Sample Id: 660809-017 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660809-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	166	200	359	97	360	97	90-110	0	20	mg/kg	05.06.2020 22:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3125251

Parent Sample Id: 660809-027

Matrix: Soil

MS Sample Id: 660809-027 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660809-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	66.4	199	258	96	258	96	90-110	0	20	mg/kg	05.06.2020 23:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3125247

Parent Sample Id: 660723-003

Matrix: Soil

MS Sample Id: 660723-003 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660723-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7150	200	7330	90	7350	100	90-110	0	20	mg/kg	05.06.2020 19:01	

Analytical Method: Chloride by EPA 300

Seq Number: 3125247

Parent Sample Id: 660809-007

Matrix: Soil

MS Sample Id: 660809-007 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660809-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	197	99	197	99	90-110	0	20	mg/kg	05.06.2020 20:22	

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



QC Summary 660809

Penasco Services
 Edith Federal #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125417

MB Sample Id: 7702949-1-BLK

Matrix: Solid

LCS Sample Id: 7702949-1-BKS

Prep Method: SW8015P

Date Prep: 05.06.2020

LCSD Sample Id: 7702949-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1140	114	1170	117	70-135	3	35	mg/kg	05.07.2020 01:19	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1190	119	70-135	2	35	mg/kg	05.07.2020 01:19	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	113		133		127		70-135			%	05.07.2020 01:19	
o-Terphenyl	125		117		122		70-135			%	05.07.2020 01:19	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125432

MB Sample Id: 7702958-1-BLK

Matrix: Solid

LCS Sample Id: 7702958-1-BKS

Prep Method: SW8015P

Date Prep: 05.06.2020

LCSD Sample Id: 7702958-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	869	87	1070	107	70-135	21	35	mg/kg	05.07.2020 01:19	
Diesel Range Organics (DRO)	<50.0	1000	889	89	1140	114	70-135	25	35	mg/kg	05.07.2020 01:19	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	77		93		112		70-135			%	05.07.2020 01:19	
o-Terphenyl	74		82		100		70-135			%	05.07.2020 01:19	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125463

MB Sample Id: 7702968-1-BLK

Matrix: Solid

LCS Sample Id: 7702968-1-BKS

Prep Method: SW8015P

Date Prep: 05.07.2020

LCSD Sample Id: 7702968-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1070	107	70-135	3	35	mg/kg	05.07.2020 19:39	
Diesel Range Organics (DRO)	<50.0	1000	1190	119	1170	117	70-135	2	35	mg/kg	05.07.2020 19:39	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	76		114		113		70-135			%	05.07.2020 19:39	
o-Terphenyl	72		104		103		70-135			%	05.07.2020 19:39	

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

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

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



QC Summary 660809

Penasco Services
 Edith Federal #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125473

MB Sample Id: 7702966-1-BLK

Matrix: Solid

LCS Sample Id: 7702966-1-BKS

Prep Method: SW8015P

Date Prep: 05.07.2020

LCSD Sample Id: 7702966-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1060	106	990	99	70-135	7	35	mg/kg	05.07.2020 19:39	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	944	94	70-135	6	35	mg/kg	05.07.2020 19:39	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	94		112		104		70-135			%	05.07.2020 19:39	
o-Terphenyl	101		115		105		70-135			%	05.07.2020 19:39	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125417

Matrix: Solid

MB Sample Id: 7702949-1-BLK

Prep Method: SW8015P

Date Prep: 05.06.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 00:59	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125432

Matrix: Solid

MB Sample Id: 7702958-1-BLK

Prep Method: SW8015P

Date Prep: 05.06.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 00:59	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125463

Matrix: Solid

MB Sample Id: 7702968-1-BLK

Prep Method: SW8015P

Date Prep: 05.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 19:19	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125473

Matrix: Solid

MB Sample Id: 7702966-1-BLK

Prep Method: SW8015P

Date Prep: 05.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 19:19	

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

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

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



QC Summary 660809

Penasco Services
Edith Federal #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125417

Parent Sample Id: 660723-004

Matrix: Soil

MS Sample Id: 660723-004 S

Prep Method: SW8015P

Date Prep: 05.06.2020

MSD Sample Id: 660723-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	989	99	70-135	3	35	mg/kg	05.07.2020 02:20	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	957	96	70-135	4	35	mg/kg	05.07.2020 02:20	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane			108		106		70-135			%	05.07.2020 02:20	
o-Terphenyl			110		105		70-135			%	05.07.2020 02:20	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125432

Parent Sample Id: 660723-005

Matrix: Soil

MS Sample Id: 660723-005 S

Prep Method: SW8015P

Date Prep: 05.06.2020

MSD Sample Id: 660723-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1100	110	1100	110	70-135	0	35	mg/kg	05.07.2020 02:20	
Diesel Range Organics (DRO)	<50.2	1000	1180	118	1190	119	70-135	1	35	mg/kg	05.07.2020 02:20	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane			117		115		70-135			%	05.07.2020 02:20	
o-Terphenyl			103		102		70-135			%	05.07.2020 02:20	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125463

Parent Sample Id: 660809-032

Matrix: Soil

MS Sample Id: 660809-032 S

Prep Method: SW8015P

Date Prep: 05.07.2020

MSD Sample Id: 660809-032 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1180	118	1190	119	70-135	1	35	mg/kg	05.07.2020 20:41	
Diesel Range Organics (DRO)	<49.9	997	1160	116	1130	113	70-135	3	35	mg/kg	05.07.2020 20:41	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane			118		102		70-135			%	05.07.2020 20:41	
o-Terphenyl			91		88		70-135			%	05.07.2020 20:41	

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



QC Summary 660809

Penasco Services
 Edith Federal #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125473

Parent Sample Id: 660832-001

Matrix: Soil

MS Sample Id: 660832-001 S

Prep Method: SW8015P

Date Prep: 05.07.2020

MSD Sample Id: 660832-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1160	116	1150	115	70-135	1	35	mg/kg	05.07.2020 20:41	
Diesel Range Organics (DRO)	1750	1000	3160	141	3100	135	70-135	2	35	mg/kg	05.07.2020 20:41	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		119		70-135	%	05.07.2020 20:41
o-Terphenyl	122		118		70-135	%	05.07.2020 20:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125400

MB Sample Id: 7702858-1-BLK

Matrix: Solid

LCS Sample Id: 7702858-1-BKS

Prep Method: SW5035A

Date Prep: 05.07.2020

LCSD Sample Id: 7702858-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.114	114	0.115	115	70-130	1	35	mg/kg	05.07.2020 14:05	
Toluene	<0.00200	0.100	0.105	105	0.103	103	70-130	2	35	mg/kg	05.07.2020 14:05	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0962	96	71-129	1	35	mg/kg	05.07.2020 14:05	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.186	93	70-135	2	35	mg/kg	05.07.2020 14:05	
o-Xylene	<0.00200	0.100	0.0965	97	0.0964	96	71-133	0	35	mg/kg	05.07.2020 14:05	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		109		108		70-130	%	05.07.2020 14:05
4-Bromofluorobenzene	107		100		98		70-130	%	05.07.2020 14:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125465

MB Sample Id: 7702944-1-BLK

Matrix: Solid

LCS Sample Id: 7702944-1-BKS

Prep Method: SW5035A

Date Prep: 05.07.2020

LCSD Sample Id: 7702944-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.122	122	0.121	121	70-130	1	35	mg/kg	05.07.2020 23:43	
Toluene	<0.00200	0.100	0.111	111	0.112	112	70-130	1	35	mg/kg	05.07.2020 23:43	
Ethylbenzene	<0.00200	0.100	0.103	103	0.104	104	71-129	1	35	mg/kg	05.07.2020 23:43	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.202	101	70-135	1	35	mg/kg	05.07.2020 23:43	
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	05.07.2020 23:43	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		109		108		70-130	%	05.07.2020 23:43
4-Bromofluorobenzene	109		100		101		70-130	%	05.07.2020 23:43

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



QC Summary 660809

Penasco Services

Edith Federal #001

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125400

Parent Sample Id: 660711-001

Matrix: Soil

MS Sample Id: 660711-001 S

Prep Method: SW5035A

Date Prep: 05.07.2020

MSD Sample Id: 660711-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.114	113	0.112	111	70-130	2	35	mg/kg	05.07.2020 12:40	
Toluene	<0.00202	0.101	0.0994	98	0.0954	94	70-130	4	35	mg/kg	05.07.2020 12:40	
Ethylbenzene	<0.00202	0.101	0.0886	88	0.0843	83	71-129	5	35	mg/kg	05.07.2020 12:40	
m,p-Xylenes	<0.00404	0.202	0.167	83	0.162	80	70-135	3	35	mg/kg	05.07.2020 12:40	
o-Xylene	<0.00202	0.101	0.0881	87	0.0842	83	71-133	5	35	mg/kg	05.07.2020 12:40	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		110		70-130	%	05.07.2020 12:40
4-Bromofluorobenzene	101		103		70-130	%	05.07.2020 12:40

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125465

Parent Sample Id: 660809-020

Matrix: Soil

MS Sample Id: 660809-020 S

Prep Method: SW5035A

Date Prep: 05.07.2020

MSD Sample Id: 660809-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.120	120	0.111	111	70-130	8	35	mg/kg	05.08.2020 09:42	
Toluene	<0.00199	0.0996	0.109	109	0.101	101	70-130	8	35	mg/kg	05.08.2020 09:42	
Ethylbenzene	<0.00199	0.0996	0.102	102	0.0944	94	71-129	8	35	mg/kg	05.08.2020 09:42	
m,p-Xylenes	<0.00398	0.199	0.198	99	0.181	91	70-135	9	35	mg/kg	05.08.2020 09:42	
o-Xylene	<0.00199	0.0996	0.102	102	0.0941	94	71-133	8	35	mg/kg	05.08.2020 09:42	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	05.08.2020 09:42
4-Bromofluorobenzene	100		101		70-130	%	05.08.2020 09:42

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



Chain of Custody

Work Order No: 1660809

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Grapeland, TX (409) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager: <u>Penasco Services</u>	Bill to: (if different) <u>Prima Exploration</u>	Work Order Comments Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRAP ☐ Level IV ☐ Deliverables: EDD ☐ ADaPT ☐ Other:
Company Name: <u>Penasco Services</u>	Company Name:	
Address: <u>11002 E Green St</u>	Address:	
City, State ZIP: <u>Carlsbad NM 88720</u>	City, State ZIP: <u>Carlsbad NM 88720</u>	
Phone:	Email: <u>Kenny.10na@penascoservices.com</u>	

Project Name: <u>CDH Fed #1</u>		Turn Around	ANALYSIS REQUEST										Preservative Codes				
Project Number: <u>API #30-025-2880</u>		Routine ☒											MeOH: Me				
Project Location		Rush:											None: NO				
Sampler's Name:		Due Date:											HNO3: HN				
PO #:		Quote #:											H2SO4: H2				
SAMPLE RECEIPT		Temp Blank: Yes ☒ No ☐	Wet Ice: Yes ☒ No ☐											HCL: HL			
Temperature (°C): <u>20</u>		Thermometer ID: <u>TN1007</u>												NaOH: Na			
Received Intact: Yes ☒ No ☐		Correction Factor: <u>-0.2</u>												Zn Acetate+ NaOH: Zn			
Cooler Custody Seals: Yes ☒ No ☐ N/A		Total Containers: <u>32</u>												TAT starts the day received by the lab, if received by 4:00pm			
Sample Custody Seals: Yes ☒ No ☐ N/A														Sample Comments			
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers											
S-1	(0-11)	S	5-10-20		0-1'	1	X	X	X								
S-1	(1-2)				2'												
S-1	(3-4)				3'												
S-1	(4-5)				4'												
S-2	(0-11)				0-1'												
S-2	(1-2)				2'												
S-2	(3-4)				3'												
S-2	(4-5)				4'												
S-3	(0-11)				0-1'												
S-3	(1-2)				2'												

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>[Signature]</u>	<u>5/6/20 15:15</u>			

Revised Date 02/28/19 Rev. 2019.1

Final 1,000

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Chain of Custody

Work Order No: 660809

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Casabad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:		Bill to: (if different)	<u>Prime Exploration</u>
Company Name:	<u>Penco services</u>	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Work Order Comments			
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐			
State of Project:			
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐			
Deliverables: EDD ☐ ADaPT ☐ Other:			

Project Name: <u>Edith Fed 1</u>		Turn Around		Pres. Code	ANALYSIS REQUEST												Preservative Codes			
Project Number:		Routine ☒															MeOH: Me			
Project Location		Rush:															None: NO			
Sampler's Name:		Due Date:															HNO3: HN			
PO #:		Quote #:		Number of Containers													H2SO4: H2			
SAMPLE RECEIPT		Temp Blank: Yes No															HCL: HL			
Temperature (°C): <u>00</u>		Wet Ice: Yes No															NaOH: Na			
Received intact: Yes No		Thermometer ID															Zn Acetate+ NaOH: Zn			
Cooler Custody Seals: Yes No N/A		Correction Factor:															TAT starts the day received by the lab, if received by 4:00pm			
Sample Custody Seals: Yes No N/A		Total Containers:															Sample Comments			
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth															
	<u>S-3 (1.3)</u>	<u>S</u>	<u>5-6-20</u>		<u>3'</u>	<u>300-CL</u>	<u>SW 6015</u>	<u>SW 802</u>												
	<u>S-3 (1.4)</u>				<u>4'</u>															
	<u>S-4 (0-11)</u>				<u>0-1'</u>															
	<u>S-4 (2)</u>				<u>2'</u>															
	<u>S-4 (3)</u>				<u>3'</u>															
	<u>S-4 (4)</u>				<u>4'</u>															
	<u>S-5 (0-11)</u>				<u>0-1'</u>															
	<u>S-5 (0.2)</u>				<u>2'</u>															
	<u>S-5 (3)</u>				<u>3'</u>															
	<u>S-5 (4)</u>				<u>4'</u>															

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>[Signature]</u>	<u>5/6/20 15:15</u>			

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Final 1,000

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Chain of Custody

Work Order No: 060809

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Carlsbad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:		Bill to: (if different)	<u>Prima Exploration</u>
Company Name:	<u>Penasco Services</u>	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADaPT ☐ Other:	

Project Name: <u>Ed: H Fed 1</u>		Turn Around		Pres. Code	ANALYSIS REQUEST												Preservative Codes					
Project Number:		Routine ☒															MeOH: Me					
Project Location:		Rush:															None: NO					
Sampler's Name:		Due Date:															HNO3: HN					
PO #:		Quote #:															H2SO4: H2					
SAMPLE RECEIPT				Temp Blank: Yes No		Wet Ice: Yes No		Number of Containers													HCL: HL	
Temperature (°C):						Thermometer ID															NaOH: Na	
Received In: Yes No																					Zn Acetate+ NaOH: Zn	
Cooler Custody Seals: Yes No N/A						Correction Factor:															TAT starts the day received by the lab, if received by 4:00pm	
Sample Custody Seals: Yes No N/A						Total Containers:															Sample Comments	
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth																	
	S-6 (0-1')	S	5-6-20		0-1'																	
	S-6 (2')				2'																	
	S-6 (3')				3'																	
	S-6 (4')				4'																	
	S-7 (0-1')				0-1'																	
	S-7 (2')				2'																	
	S-7 (3')				3'																	
	S-7 (4')				4'																	
	S-8 (0-1')				0-1'																	
	S-8 (2')				2'																	

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>PO Hg</u>	<u>[Signature]</u>	<u>5/6/20 15:15</u>			

Revised Date 02/26/19 Rev. 2019.1

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Chain of Custody

Work Order No: 660809

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Carlsbad, NM (505) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Bill to: (if different)	Prime Exploration	Work Order Comments Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables: EDD ☐ ADaPT ☐ Other:
Company Name: <u>Xenco Services</u>	Company Name:		
Address:	Address:		
City, State ZIP:	City, State ZIP:		
Phone:	Email:		

Project Name: <u>Chick Ped 1</u>	Turn Around	ANALYSIS REQUEST Pres. Code Number of Containers <u>300-CL</u> <u>SW 8015</u> <u>SW 8021</u>	Preservative Codes MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn TAT starts the day received by the lab, if received by 4:00pm Sample Comments																
Project Number:	Routine ☒																		
Project Location:	Rush:																		
Sampler's Name:	Due Date:																		
PO #:	Quote #:																		
SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No Temperature (°C): Received Intact: <u>Yes</u> Cooler Custody Seals: Yes No N/A Correction Factor: Sample Custody Seals: Yes No N/A Total Containers:																			
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth														
	<u>S-8 (3')</u>	<u>S</u>	<u>5/6/20</u>		<u>3'</u>														
	<u>S-8 (4')</u>	<u>I</u>	<u>1</u>		<u>4'</u>														

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>PS 10</u>	<u>[Signature]</u>	<u>5/6/20 15:15</u>			

Revised Date: 02/26/19 Rev: 2015.1

Final 1.000

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