ConocoPhillips

Ike Tavarez
ConocoPhillips
600 W. Illinois Avenue
Midland, TX 79701
+1-432-701-8630

November 21, 2022

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Subject: **Tequiza Federal #1 Release**
Unit Letter O, Section 34, Township 21 South, Range 25 East
Eddy County, New Mexico
Incident ID nAB1805142690
2RP-4632

Sir or Madam:

ConocoPhillips Company("COPC") entered into an Agreed Compliance Order ("ACO") with the New Mexico Oil Conservation Division ("NMOCD") on December 15, 2021, related to unresolved releases from COPC's predecessor-in-interest ("COG"). The ACO required COPC to submit characterization and/or remediation plans with proposed timeframes for the ongoing corrective actions or remediations identified to the NMOCD no later than March 31, 2022. As of March 11, 2022, COPC has submitted characterization and remediation plans for all of the properties identified and owned. All documentation was submitted in accordance with ACO terms. These documents have been submitted to the NMOCD via CentreStack, a Secure Access & File Sharing platform, at the direction of Mr. Bradford Billings, NMOCD.

The Tequiza Federal #1 Release that occurred on February 17, 2018 (Incident ID nAB1805142690, 2RP-4632) was included in the above-mentioned ACO submittals. The Work Plan for the Tequiza Federal #1 Release was originally submitted to the NMOCD and BLM via email on November 12, 2018. No response was received from the NMOCD concerning the approval or rejection of said report.

Enclosed is a copy of the Work Plan for the subject line incident. As mentioned, this Work Plan has been previously submitted in its entirety via the CentreStack platform. It is now duly submitted separately via the NMOCD Fee Application portal.

If you have any questions, please contact me at 432-701-8630.

Sincerely,

Ike Tavarez, P.G.
Program Manager – RMR

cc: Site Files

Attachments: Work Plan, Tequiza Federal #1 Release, Incident ID nAB1805142690, 2RP-4632

From: Ike Tavarez
To: Pruett, Maria, EMNRD; stucker
Cc: mike.bratcher@state.nm.us; Rebecca Haskell; Sheldon Hitchcock; DeAnn Grant; Dakota Neel
Subject: COG - Tequiza Federal #1 (2-17-18) 2RP 4632 - Work Plan
Date: Monday, November 12, 2018 3:44:42 PM
Attachments: image001.jpg
COG - Tequiza Federal #1 (2-17-18) 2 RP 4632 - Work Plan.pdf

Maria and Shelly,

Here is the work plan for the Tequiza Federal #1 located in Eddy County, New Mexico. Let me know if you need additional information or have any questions on the report, thanks

Ike Tavarez, PG
Senior HSE Supervisor
COG Operating LLC
600 W Illinois Avenue | Midland, TX 79701
Direct: 432-685-2573| Main: 432-683-7443
Cell: 432-701-8630
itavarez@concho.com

CONCHO

November 12, 2018

Maria Pruett
Oil Conservation Division, District 2
811 S First St.
Artesia, NM 88210

Shelly Tucker
Bureau of Land Management
620 E. Green St.
Carlsbad, NM 88220

Re: Work Plan
Tequiza Federal #1 (2/17/18)
RP#: 2RP-4632
GPS: 32.8150708, -103.995597
Unit Letter O, Section 34, Township 21 South, Range 25 East
Eddy County, New Mexico

Ms. Pruett /Ms. Tucker,

COG Operating, LLC (COG) is pleased to submit the following work plan in response to a release that occurred at the Tequiza Federal #1 Well Site located in Unit Letter O, Section 34, Township 21 South and Range 25 East in Eddy County, New Mexico.

BACKGROUND

The release was discovered on February 17, 2018 and a C-141 initial report was submitted and approved by the New Mexico Oil Conservation Division (NMOCD). The initial C-141 is shown in Appendix A. The crude oil and produced water release occurred when the packing failed on the well. Approximately fifteen (1.5) barrels of oil and fifteen (15) barrels of produced water were released and recovered one (1) barrel of oil and ten (10) barrels of produced water. Majority of the fluids remained on the pad, except for an area north of the pad.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the New Mexico Office of the State Engineer (NMOSE) and the USGS data, the depth to groundwater in the area varies from <50 to 50-100' below surface and may be due to surface elevation change. The Chevron trend map show a depth to water from 50-100' below surface. The water well information is shown in Appendix B.

A risk based evaluation and site determinations were perform in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization

evaluation, the area is in a high karst area and no other receptors (water wells, playas, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
High Karst	<50 feet

Delineation and Closure Criteria:

Remedial Action Levels (RALs)	
Chlorides	600 mg/kg
TPH (GRO and DRO and MRO)	100 mg/kg
TPH (GRO and DRO)	NA
Benzene	10 mg/kg
Total BTEX	50 mg/kg

PROPOSED WORK PLAN

- The areas of T-2 and T-3 will be excavated to a depth of 1.0 and 2.0' below surface, respectively.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with clean backfilled material.

SAMPLING PLAN

Once the excavation is complete, soil confirmation samples will be collected from the excavated areas. To collect representative samples, composite samples (5-point composite) will be collected every 600 square feet (25 x 25) for the final confirmation sampling for the constituents of concern. Based on the proposed excavation areas, we estimate around 8-10 bottom hole samples in a grid pattern. The sidewall composite samples will be collected every 200 square feet. Discrete soil samples will be collected from the excavation if any "hot spots" are encountered during the excavation.

REMEDIATION TIMEFRAME AND ESTIMATED VOLUME

The remediation will be performed 90 days after the work plan has been approved. Approximately 450 cubic yards of soil will be excavated from the impacted area.

SITE RECLAMATION AND RESTORATION

Majority of the fluid remained on the pad, except for a small portion north of the pad. This area will be excavated to a depth of 1.0' below surface. Concho will perform the reclamation and revegetation in the pasture area per NMED 19.15.29.13. Once excavated, soil samples will be collected from the bottom and sidewalls to confirm the removal of impact soil greater than 600 mg/kg chlorides or background (whichever is greater). The backfilled material will be non-contaminated with concentrations below 600 mg/kg chlorides and reseeded per BLM guidelines when appropriate.

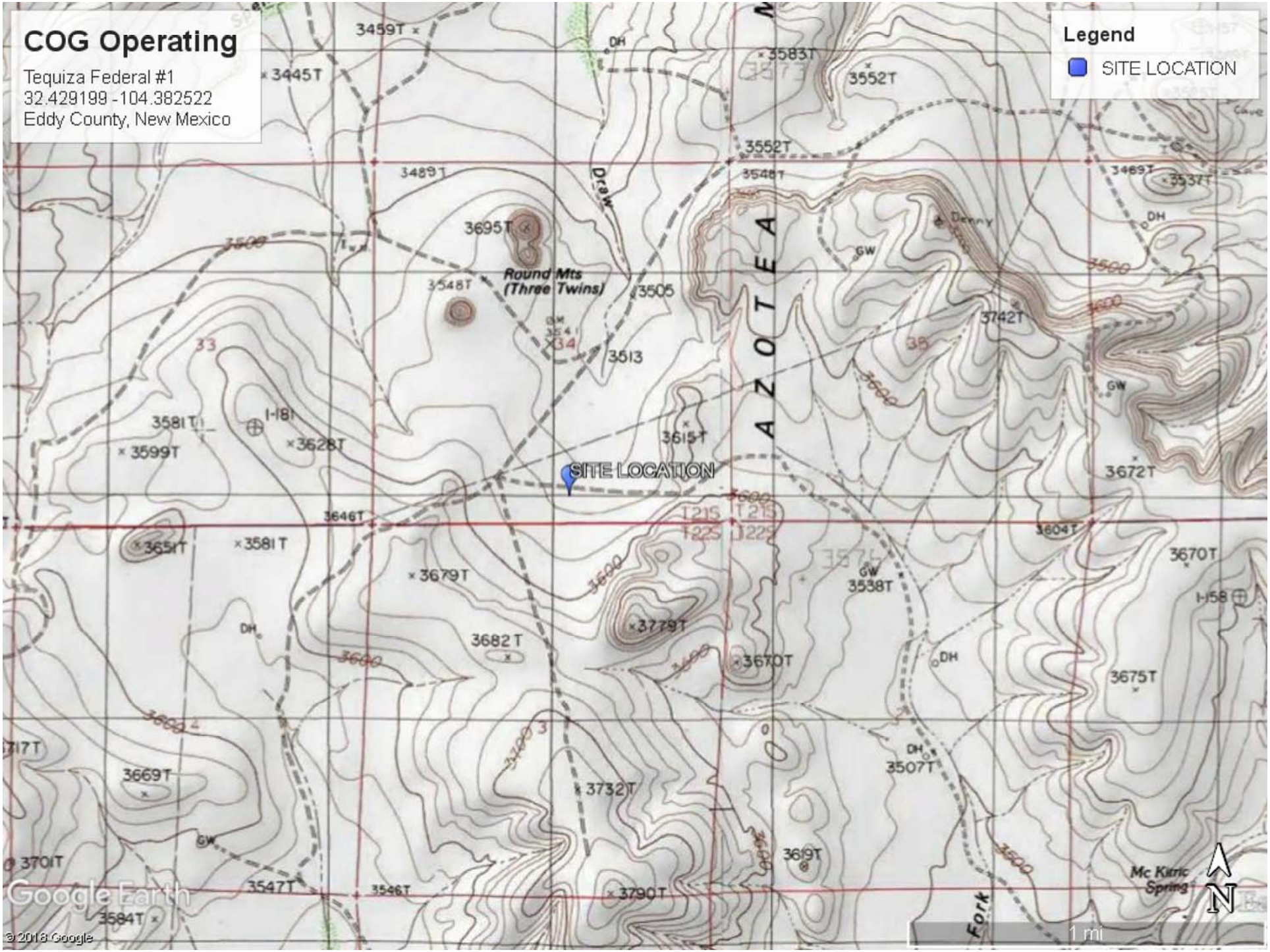
Should you have any questions or concerns on the proposed remediation activities, please do not hesitate to contact me.

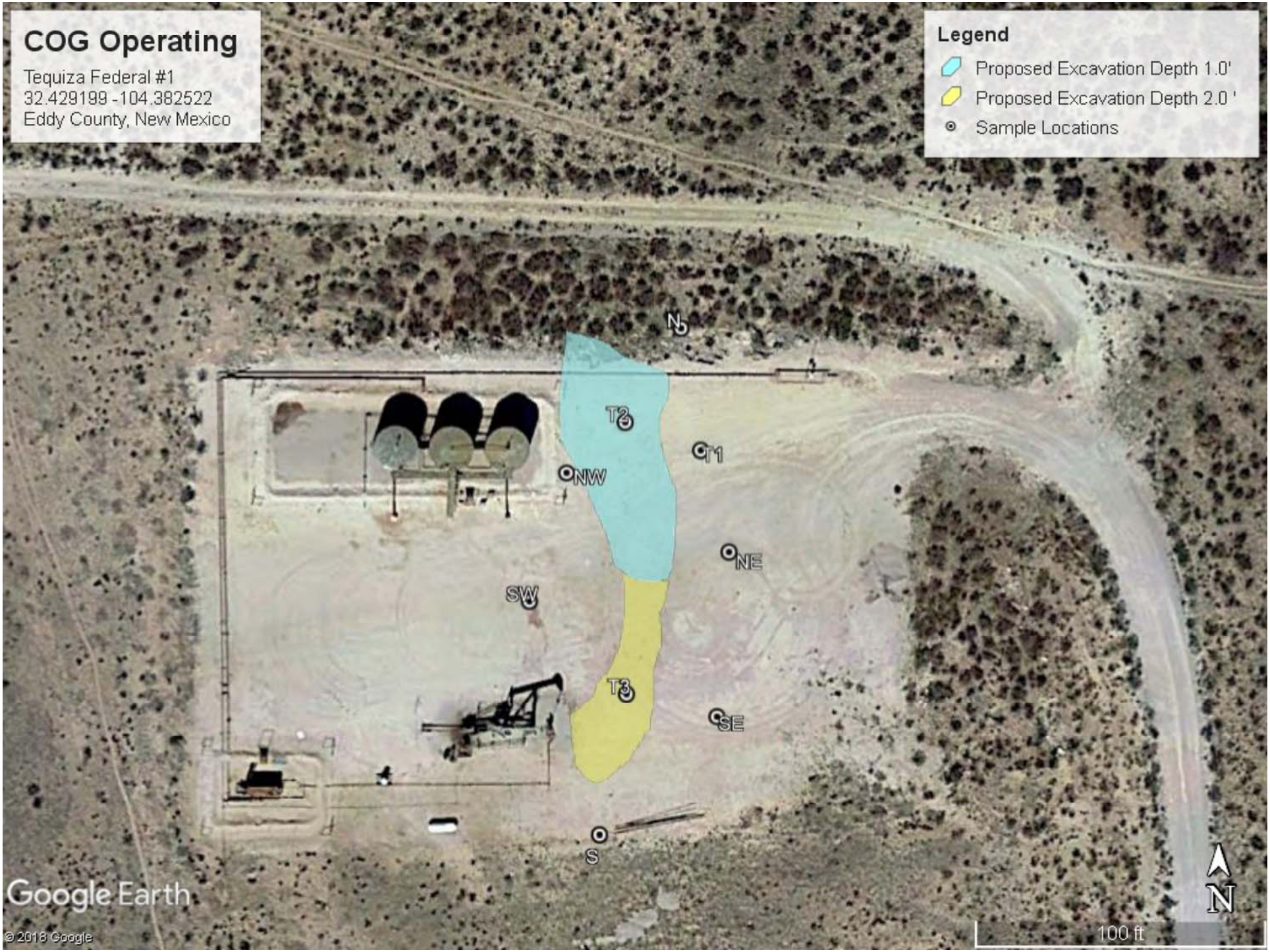
Sincerely,
Concho Operating, LLC

Ike Tavarez, P. G.
Senior HSE Supervisor
itavarez@concho.com

CC:

Figures





Tables

Table 1
COG Operating LLC.
Tequiza Federal #1
Eddy County, New Mexico

Sample ID	Sample Date	Soil Status		TPH (mg/kg)							Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
		In-Situ	Removed	GRO	DRO	MRO	*Total*	GRO	DRO	*Total*			
Average Depth to Groundwater (ft)		**50 -100'**											
NMOCD RAL Limits (mg/kg)				**-**	**-**	**-**	**2,500**	**-**	**-**	**1,000**	**10**	**50**	**10,000**
T-1 (6")	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	24.3
T-1 (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	20.4
T-2 (6")	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	**8,630**
T-2 (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	365
T-3 (6")	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,480**
T-3 (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,600**
T-3 (2.0')	3/7/2018	X		-	-	-	-	-	-	-	-	-	503
South (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	13
North (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	7
Northwest (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	26.8
Southwest (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	35.5
Northeast (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	45.8
Southeast (1.0')	3/7/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	229
South -1 (6")	3/19/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	15.2
North -1 (6")	3/20/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4
Northwest (6")	3/20/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	28.6
Southwest (6")	3/20/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	30.7
Northeast (6")	3/20/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	ND	48.3
Southeast (6")	3/20/2018	X		ND	ND	ND	ND	ND	ND	ND	ND	0.015	234

Proposed Excavation Depths

(-) Not Analyzed

ND - Not Detected - Below Reporting Limit

Appendix A

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 19 2018
RECEIVED

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

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

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1805142040

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **COG Operating, LLC** (OGRID# 229137)	Contact: **Robert McNeill**
Address: **600 West Illinois Avenue, Midland TX 79701**	Telephone No.: **432-683-7443**
Facility Name: **Tequiza Federal #001**	Facility Type: **Oil Well**

Surface Owner: BLM	Mineral Owner: Federal	API No.: 30-015-35849

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	34	21S	25E	330	South	2310	East	Eddy

Latitude: 32.4291992 **Longitude**: -104.3825226 NAD83

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 1.5bbls Oil & 15bbls PW	Volume Recovered: 1bbls Oil & 10bbls PW
Source of Release: Stuffing Box	Date and Hour of Occurrence: 2/17/2018	Date and Hour of Discovery: 2/17/2018 1:00pm
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The packing failed and fluid was released out of the top of the packing gland. The packing was replaced.

Describe Area Affected and Cleanup Action Taken.*

All of the fluid remained on location. A vacuum truck was utilized to recover all freestanding fluids. Concho will have the spill area evaluated for any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Sheldon Hitchcock	OIL CONSERVATION DIVISION
Printed Name: Sheldon L. Hitchcock	Approved by Environmental Specialist: Signed By
Title: HSE Coordinator	Approval Date: 2/20/18 Expiration Date: N/A
E-mail Address: slhitchcock@concho.com	Conditions of Approval: See Attached Attached ☒ 2RP-4632
Date: 2/19/2018 Phone: 575-746-2010	

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4632
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>≤50</u>(ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? 515	☐ 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.

<u>Characterization Report Checklist</u>: ***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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4632
Facility ID	
Application ID	

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

Printed Name: Ike Tavarez Title: Senior HSE Supervisor

Signature:  Date: 11/4/18

email: itavarez@concho.com Telephone: 432-683-7443

OCD Only

Received by: Jocelyn Harimon Date: 11/21/2022

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4632
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Ike Tavarez Title: Senior HSE Supervisor

Signature: _____ Date: 11/8/18

email: itavarez@concho.com Telephone: 432-683-7443

OCD Only

Received by: Jocelyn Harimon Date: 11/21/2022

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

Signature: Brittany Hall Date: 11/29/2022

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP 4632
Facility ID	
Application ID	

Closure

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

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

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B

New Mexico NFHL Data

November 12, 2018

1:18,056

0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

FEMA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

nmflood.org is made possible through a collaboration with NMDHSEM, EDAC, and FEMA
This is a non-regulatory product for informational use only. Please consult your local floodplain administrator for further information.

USGS science for a changing world

National Water Information System: Mapper

Sites | Map

Search

Search by Street Address:
32.429199 -104.382522

Search by Place Name:
Enter Placename

Search by Site Number(s):
Enter Site Number(s)

Search by State/Territory:
Select an Area

Search by Watershed Region:
Select a Region

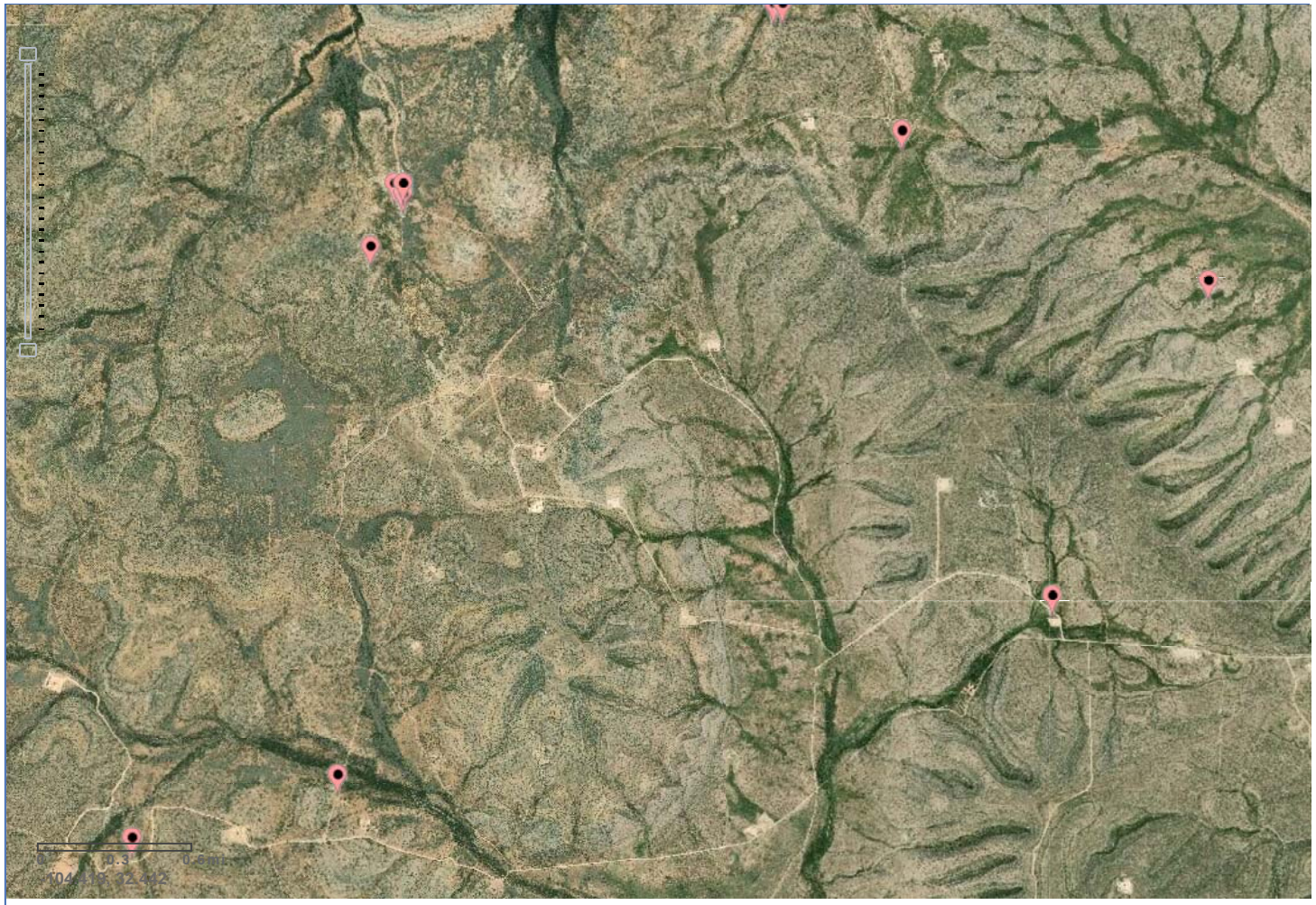
Surface-Water Sites

Groundwater Sites

Springs

Atmospheric Sites

Other Sites



Site Information

Click to hideNews Bulletins

- Please see news on new formats
- **UPDATE, 11/9: As of November 8, the USGS has successfully restored all of the operational gages that stopped transmitting due to an issue with the satellite telemetry system that records and transmits data. The USGS will now focus on restoring other equipment that experienced the telemetry issues, including about 85 rapid deployment gages that are used periodically for emergency response. Read more**
- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322259104255001

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

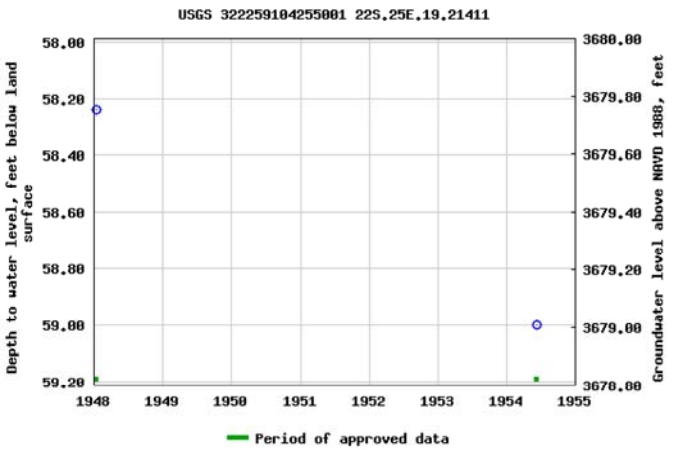
USGS 322259104255001 22S.25E.19.21411

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°22'59", Longitude 104°25'50" NAD27
Land-surface elevation 3,738 feet above NAVD88
The depth of the well is 75 feet below land surface.
This well is completed in the Yates Formation, Guadalupe Group (313YATS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site

USGS Home
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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: New Mexico | GO

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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322310104211701

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

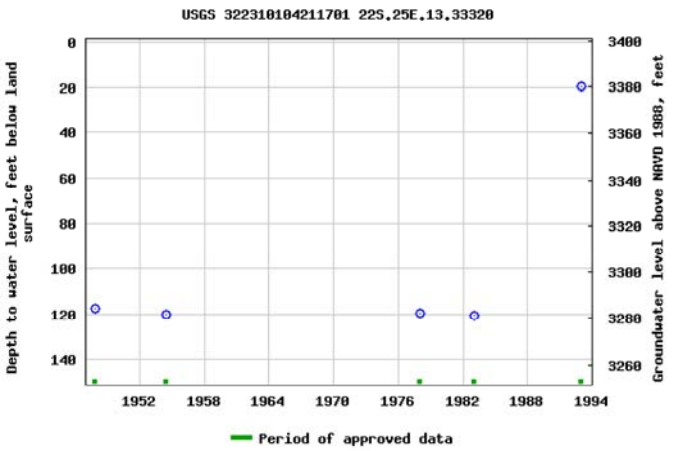
USGS 322310104211701 22S.25E.13.33320

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°23'10", Longitude 104°21'17" NAD27
Land-surface elevation 3,401 feet above NAVD88
The depth of the well is 160 feet below land surface.
This well is completed in the Yates Formation, Guadalupe Group (313YATS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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Data Category: Groundwater | Geographic Area: New Mexico | GO

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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322411104243501

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

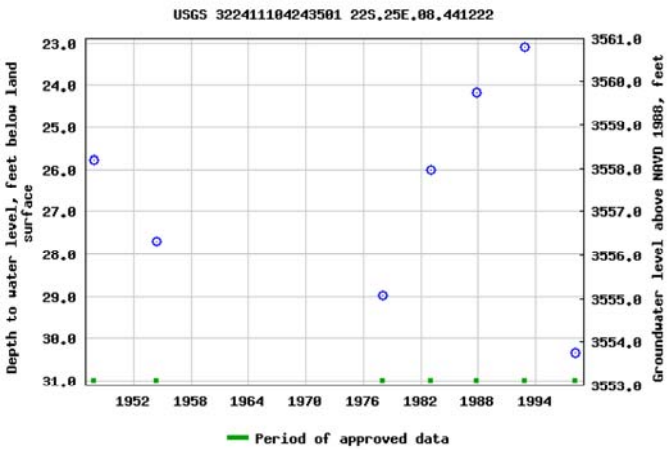
USGS 322411104243501 22S.25E.08.441222

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°24'11", Longitude 104°24'35" NAD27
Land-surface elevation 3,584 feet above NAVD88
The depth of the well is 43 feet below land surface.
This well is completed in the Yates Formation, Guadalupe Group (313YATS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: New Mexico | GO

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- Please see news on new formats
- **UPDATE, 11/9: As of November 8, the USGS has successfully restored all of the operational gages that stopped transmitting due to an issue with the satellite telemetry system that records and transmits data. The USGS will now focus on restoring other equipment that experienced the telemetry issues, including about 85 rapid deployment gages that are used periodically for emergency response. Read more**
- Full News

Groundwater levels for New Mexico

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322703104215601

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

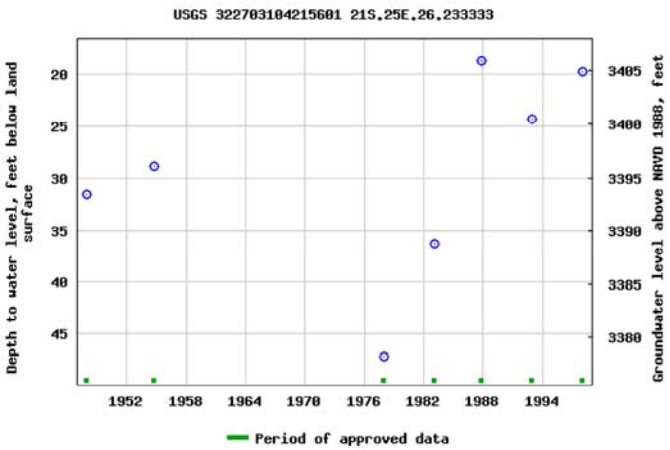
USGS 322703104215601 21S.25E.26.233333

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°27'03", Longitude 104°21'56" NAD27
Land-surface elevation 3,425 feet above NAVD88
The depth of the well is 125 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322411104243501

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

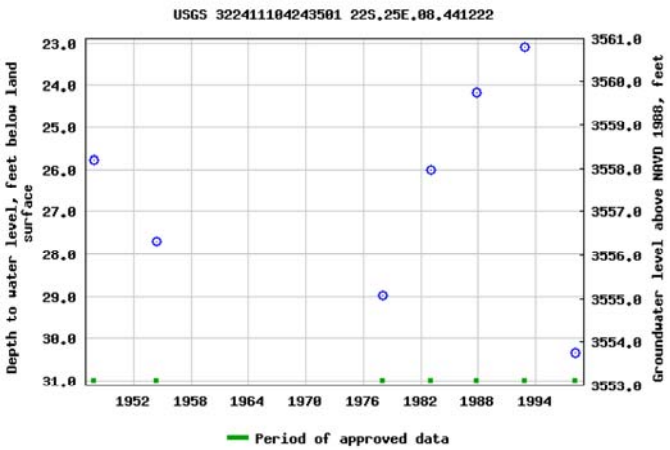
USGS 322411104243501 22S.25E.08.441222

Available data for this site: Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°24'11", Longitude 104°24'35" NAD27
Land-surface elevation 3,584 feet above NAVD88
The depth of the well is 43 feet below land surface.
This well is completed in the Yates Formation, Guadalupe Group (313YATS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
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- Full News

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322259104255001

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

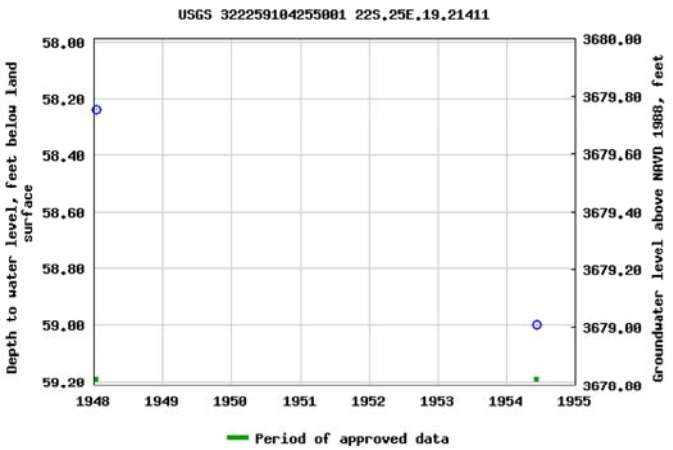
USGS 322259104255001 22S.25E.19.21411

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°22'59", Longitude 104°25'50" NAD27
Land-surface elevation 3,738 feet above NAVD88
The depth of the well is 75 feet below land surface.
This well is completed in the Yates Formation, Guadalupe Group (313YATS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y		Depth Well	Depth Water	Water Column
C 00107		CUB	ED	4	3	3	09	21S	25E	555822	3594647*		300		
C 00384		C	ED	1	4	1	17	21S	25E	554431	3593935		994	220	774
C 00384 CLW201180	O	C	ED	3	2	1	17	21S	25E	554411	3594236*		994	220	774
C 00384 CLW201207	O	C	ED	3	2	1	17	21S	25E	554411	3594236*		994	220	774
C 00550		C	ED	1	1	2	11	21S	25E	559689	3596136*		97		
C 00885		C	ED	3	4	2	05	21S	25E	555204	3597091*		348		
C 00885 POD2		C	ED	3	4	2	05	21S	25E	555204	3597091*		379	348	31
C 01041		C	ED	3	3	3	03	21S	25E	557260	3596343*		85	65	20
C 01166		C	ED		1	3	11	21S	25E	558976	3595176*		550		
C 01399		C	LE	3	3	2	15	21S	25E	558068	3593839*		200		
C 01451		C	ED		3	3	22	21S	25E	557373	3591507*		290	260	30
C 01455		C	ED		3	2	26	21S	25E	559780	3590713*		125	90	35
C 01456	R	C	ED		2	2	33	21S	25E	557012	3589339		60	17	43
C 01456 POD2		C	ED	4	2	2	33	21S	25E	557012	3589339		80	60	20
C 01470		C	ED		2	4	06	21S	25E	553698	3596774*		284	264	20
C 02066		C	ED	3	3	3	04	21S	25E	555616	3596280*		120	97	23
C 02268		CUB	ED	1	4	3	11	21S	25E	559277	3594853*		30	25	5
C 02643		C	ED		3	3	03	21S	25E	557361	3596444*		145	33	112
C 02731		C	ED	1	3	4	18	21S	25E	553218	3593208*		233	60	173
C 03618 POD1		C	ED	2	2	1	03	21S	25E	557943	3597754		160	80	80

Average Depth to Water: **137 feet**

Minimum Depth: **17 feet**

Maximum Depth: **348 feet**

Record Count: 20

PLSS Search:

Township: 21S **Range:** 25E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y		Depth Well	Depth Water	Water Column
C 00959		C	ED	1	1	1	27	22S	25E	557349	3581495*				
C 00960		C	ED	3	1	2	28	22S	25E	556534	3581303*		69	52	17
C 00961		C	ED	4	1	2	19	22S	25E	553461	3582890*		80	60	20
C 00988		C	ED			4	01	22S	25E	561503	3586854*		55	20	35
C 01288		C	ED		1	4	20	22S	25E	554996	3582193*		800		
C 01492		C	ED	1	2	4	30	22S	25E	553689	3580659*				
C 01738		C	ED	4	2	3	16	22S	25E	556273	3583728*		204		
C 01758		C	ED	4	2	3	16	22S	25E	556273	3583728*				
C 01856		C	ED			4	09	22S	25E	556774	3585236*		460		
C 02362		CUB	ED	1	3	3	29	22S	25E	554108	3580247*		83	60	23
C 02874		C	ED	4	3	2	11	22S	25E	559796	3585738*		740	385	355
C 03552 POD1		C	ED	4	4	2	15	22S	25E	558548	3584192		250	150	100

Average Depth to Water: **121 feet**

Minimum Depth: **20 feet**

Maximum Depth: **385 feet**

Record Count: 12

PLSS Search:

Township: 22S **Range:** 25E

***UTM location was derived from PLSS - see Help**

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National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: New Mexico | GO

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Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322715104144501

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

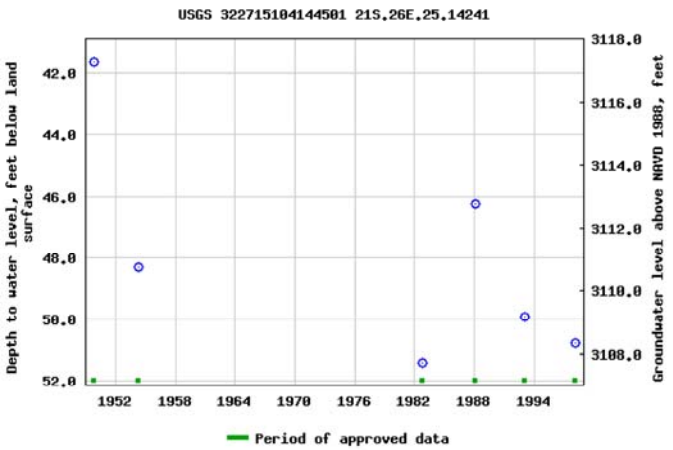
USGS 322715104144501 21S.26E.25.14241

Available data for this site: Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code --
Latitude 32°27'15", Longitude 104°14'45" NAD27
Land-surface elevation 3,159 feet above NAVD88
The depth of the well is 464 feet below land surface.
This well is completed in the Capitan Limestone (313CPTN) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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Questions about sites/data?
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Appendix C

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green
2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa, TEXAS 79764

Project: COG Tequiza Federal 001H
Project Number: [none]
Location: Eddy County NM

Lab Order Number: 8C14004

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 03/21/18

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-1 @ 6"	8C14004-01	Soil	03/07/18 09:05	03-14-2018 09:15
T-1 @1'	8C14004-02	Soil	03/07/18 09:07	03-14-2018 09:15
T-2 @ 6"	8C14004-03	Soil	03/07/18 09:15	03-14-2018 09:15
T-2 @ 1'	8C14004-04	Soil	03/07/18 09:20	03-14-2018 09:15
T-3 @ 6"	8C14004-05	Soil	03/07/18 09:40	03-14-2018 09:15
T-3 @ 1'	8C14004-06	Soil	03/07/18 09:47	03-14-2018 09:15
South-1@1'	8C14004-07	Soil	03/07/18 10:00	03-14-2018 09:15
North-1@1'	8C14004-08	Soil	03/07/18 10:15	03-14-2018 09:15
Northwest-1@1'	8C14004-09	Soil	03/07/18 10:25	03-14-2018 09:15
Southwest-2@1'	8C14004-10	Soil	03/07/18 10:35	03-14-2018 09:15
Northeast-1@1'	8C14004-11	Soil	03/07/18 11:00	03-14-2018 09:15
Southeast-2@1'	8C14004-12	Soil	03/07/18 11:45	03-14-2018 09:15

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @ 6"

8C14004-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Toluene	ND	0.0108	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00538	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0215	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0108	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*125 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.2 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**24.3**	1.08	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*111 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-1 @1'

8C14004-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*71.3 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	*S-GC*
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**20.4**	1.09	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.4 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-2 @ 6"

8C14004-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Toluene	ND	0.0112	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00562	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0225	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0112	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*83.6 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*114 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**8630**	28.1	mg/kg dry	25	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*113 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-2 @ 1'

8C14004-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Toluene	ND	0.0114	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00568	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0227	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0114	mg/kg dry	1	P8C1504	03/15/18	03/16/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*65.8 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	*S-GC*
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P8C1504*	*03/15/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**365**	1.14	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.3 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-3 @ 6"

8C14004-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*120 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*86.8 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1480**	5.43	mg/kg dry	5	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*125 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-3 @ 1'

8C14004-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*83.5 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*106 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1600**	5.56	mg/kg dry	5	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*92.3 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*99.1 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

South-1@1'

8C14004-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.0208	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Toluene	ND	0.208	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.104	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.417	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.208	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*112 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*86.4 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**13.0**	1.04	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P8C1503	03/15/18	03/15/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P8C1507	03/15/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.2 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.9 %*	*70-130*		*P8C1507*	*03/15/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	03/15/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

North-1@1'

8C14004-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0215	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Toluene	ND	0.215	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.108	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.430	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.215	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*90.8 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*115 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.08	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P8C1609	03/16/18	03/16/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*122 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*128 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	03/16/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Northwest-1@1'

8C14004-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0225	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Toluene	ND	0.225	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.112	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.449	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.225	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*157 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**28.6**	1.12	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P8C1609	03/16/18	03/16/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*116 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*123 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/16/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Southwest-2@1'

8C14004-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Toluene	ND	0.0114	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00568	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0227	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0114	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.6 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**35.3**	1.14	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P8C1609	03/16/18	03/16/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*125 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*131 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	03/16/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Northeast-1@1'

8C14004-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0225	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Toluene	ND	0.225	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.112	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.449	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.225	mg/kg dry	20	P8C1610	03/16/18	03/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*138 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*100 %*	*75-125*		*P8C1610*	*03/16/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**45.8**	1.12	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P8C1609	03/16/18	03/16/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*117 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*123 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	03/16/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Southeast-2@1'

8C14004-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Toluene	ND	0.0114	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Ethylbenzene	ND	0.00568	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (p/m)	ND	0.0227	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Xylene (o)	ND	0.0114	mg/kg dry	1	P8C1610	03/16/18	03/16/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*107 %*	*75-125*		*P8C1610*	*03/16/18*	*03/16/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**229**	1.14	mg/kg dry	1	P8C1903	03/19/18	03/20/18	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P8C1609	03/16/18	03/16/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P8C1603	03/16/18	03/16/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*115 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*P8C1603*	*03/16/18*	*03/16/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	03/16/18	03/16/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C1504 - General Preparation (GC)										
Blank (P8C1504-BLK1)				Prepared & Analyzed: 03/15/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0640*		"	*0.0600*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0869*		"	*0.0600*		*145*	*75-125*			*S-GC*
LCS (P8C1504-BS1)				Prepared & Analyzed: 03/15/18						
Benzene	0.0986	0.00100	mg/kg wet	0.100		98.6	70-130			
Toluene	0.109	0.0100	"	0.100		109	70-130			
Ethylbenzene	0.117	0.00500	"	0.100		117	70-130			
Xylene (p/m)	0.211	0.0200	"				70-130			
Xylene (o)	0.116	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0562*		"	*0.0600*		*93.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0669*		"	*0.0600*		*112*	*75-125*			
LCS Dup (P8C1504-BSD1)				Prepared & Analyzed: 03/15/18						
Benzene	0.0979	0.00100	mg/kg wet	0.100		97.9	70-130	0.733	20	
Toluene	0.112	0.0100	"	0.100		112	70-130	2.39	20	
Ethylbenzene	0.110	0.00500	"	0.100		110	70-130	6.26	20	
Xylene (p/m)	0.215	0.0200	"				70-130		20	
Xylene (o)	0.113	0.0100	"				70-130		20	
Surrogate: 4-Bromofluorobenzene	*0.0638*		"	*0.0600*		*106*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0536*		"	*0.0600*		*89.4*	*75-125*			
Matrix Spike (P8C1504-MS1)		**Source: 8C14004-04**		Prepared: 03/15/18 Analyzed: 03/16/18						
Benzene	0.0985	0.00114	mg/kg dry	0.114	ND	86.7	80-120			
Toluene	0.0885	0.0114	"	0.114	ND	77.9	80-120			
Ethylbenzene	0.104	0.00568	"	0.114	ND	91.2	80-120			
Xylene (p/m)	0.180	0.0227	"		ND		80-120			
Xylene (o)	0.0986	0.0114	"		ND		80-120			
Surrogate: 4-Bromofluorobenzene	*0.0898*		"	*0.0682*		*132*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0733*		"	*0.0682*		*107*	*75-125*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C1610 - General Preparation (GC)										
Blank (P8C1610-BLK1)				Prepared & Analyzed: 03/16/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 4-Bromofluorobenzene	*0.0755*		"	*0.0600*		*126*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0585*		"	*0.0600*		*97.5*	*75-125*			
LCS (P8C1610-BS1)				Prepared & Analyzed: 03/16/18						
Benzene	0.108	0.00100	mg/kg wet	0.100		108	70-130			
Toluene	0.115	0.0100	"	0.100		115	70-130			
Ethylbenzene	0.118	0.00500	"	0.100		118	70-130			
Xylene (p/m)	0.218	0.0200	"				70-130			
Xylene (o)	0.120	0.0100	"				70-130			
Surrogate: 4-Bromofluorobenzene	*0.0747*		"	*0.0600*		*125*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0560*		"	*0.0600*		*93.3*	*75-125*			
LCS Dup (P8C1610-BSD1)				Prepared & Analyzed: 03/16/18						
Benzene	0.0967	0.00100	mg/kg wet	0.100		96.7	70-130	11.5	20	
Toluene	0.108	0.0100	"	0.100		108	70-130	6.70	20	
Ethylbenzene	0.109	0.00500	"	0.100		109	70-130	8.01	20	
Xylene (p/m)	0.215	0.0200	"				70-130		20	
Xylene (o)	0.116	0.0100	"				70-130		20	
Surrogate: 4-Bromofluorobenzene	*0.0652*		"	*0.0600*		*109*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0561*		"	*0.0600*		*93.6*	*75-125*			
Matrix Spike (P8C1610-MS1)	**Source: 8C14005-10**			Prepared: 03/16/18 Analyzed: 03/17/18						
Benzene	0.0886	0.00106	mg/kg dry	0.106	ND	83.3	80-120			
Toluene	0.0861	0.0106	"	0.106	ND	80.9	80-120			
Ethylbenzene	0.104	0.00532	"	0.106	ND	97.7	80-120			
Xylene (p/m)	0.195	0.0213	"		ND		80-120			
Xylene (o)	0.0992	0.0106	"		ND		80-120			
Surrogate: 4-Bromofluorobenzene	*0.0683*		"	*0.0638*		*107*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.0650*		"	*0.0638*		*102*	*75-125*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C1610 - General Preparation (GC)										
Matrix Spike Dup (P8C1610-MSD1)	**Source: 8C14005-10**			Prepared: 03/16/18 Analyzed: 03/17/18						
Benzene	0.0864	0.00106	mg/kg dry	0.106	ND	81.2	80-120	2.58	20	
Toluene	0.0862	0.0106	"	0.106	ND	81.1	80-120	0.173	20	
Ethylbenzene	0.102	0.00532	"	0.106	ND	96.0	80-120	1.83	20	
Xylene (p/m)	0.194	0.0213	"		ND		80-120		20	
Xylene (o)	0.0982	0.0106	"		ND		80-120		20	
Surrogate: 1,4-Difluorobenzene	*0.0737*		*"*	*0.0638*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0797*		*"*	*0.0638*		*125*	*75-125*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C1503 - * DEFAULT PREP *** **										
Blank (P8C1503-BLK1)				Prepared & Analyzed: 03/15/18						
% Moisture	ND	0.1	%							
Duplicate (P8C1503-DUP1)		**Source: 8C13007-08**		Prepared & Analyzed: 03/15/18						
% Moisture	9.0	0.1	%		8.0			11.8	20	
Duplicate (P8C1503-DUP2)		**Source: 8C13009-19**		Prepared & Analyzed: 03/15/18						
% Moisture	11.0	0.1	%		11.0			0.00	20	
Duplicate (P8C1503-DUP3)		**Source: 8C14002-16**		Prepared & Analyzed: 03/15/18						
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P8C1503-DUP4)		**Source: 8C14004-07**		Prepared & Analyzed: 03/15/18						
% Moisture	4.0	0.1	%		4.0			0.00	20	
Batch P8C1609 - * DEFAULT PREP *** **										
Blank (P8C1609-BLK1)				Prepared & Analyzed: 03/16/18						
% Moisture	ND	0.1	%							
Batch P8C1903 - * DEFAULT PREP *** **										
Blank (P8C1903-BLK1)				Prepared: 03/19/18 Analyzed: 03/20/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C1903-BS1)				Prepared: 03/19/18 Analyzed: 03/20/18						
Chloride	417	1.00	mg/kg wet	400		104	80-120			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C1903 - * DEFAULT PREP *** **										
LCS Dup (P8C1903-BSD1)				Prepared: 03/19/18 Analyzed: 03/20/18						
Chloride	415	1.00	mg/kg wet	400		104	80-120	0.534	20	
Duplicate (P8C1903-DUP1)		**Source: 8C14003-11**		Prepared: 03/19/18 Analyzed: 03/20/18						
Chloride	4120	10.8	mg/kg dry		4070			1.21	20	
Duplicate (P8C1903-DUP2)		**Source: 8C14004-09**		Prepared: 03/19/18 Analyzed: 03/20/18						
Chloride	28.0	1.12	mg/kg dry		28.6			2.11	20	
Matrix Spike (P8C1903-MS1)		**Source: 8C14003-11**		Prepared: 03/19/18 Analyzed: 03/20/18						
Chloride	5290	10.8	mg/kg dry	1080	4070	114	80-120			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C1507 - General Preparation (GC)										
Blank (P8C1507-BLK1)				Prepared: 03/15/18 Analyzed: 03/16/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*129*		*"*	*100*		*129*	*70-130*			
Surrogate: o-Terphenyl	*67.8*		*"*	*50.0*		*136*	*70-130*			
LCS (P8C1507-BS1)				Prepared: 03/15/18 Analyzed: 03/16/18						
C6-C12	1130	25.0	mg/kg wet	1000		113	75-125			
>C12-C28	1110	25.0	"	1000		111	75-125			
Surrogate: 1-Chlorooctane	*120*		*"*	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*59.8*		*"*	*50.0*		*120*	*70-130*			
LCS Dup (P8C1507-BSD1)				Prepared: 03/15/18 Analyzed: 03/16/18						
C6-C12	1130	25.0	mg/kg wet	1000		113	75-125	0.166	20	
>C12-C28	1110	25.0	"	1000		111	75-125	0.133	20	
Surrogate: 1-Chlorooctane	*126*		*"*	*100*		*126*	*70-130*			
Surrogate: o-Terphenyl	*60.6*		*"*	*50.0*		*121*	*70-130*			
Matrix Spike (P8C1507-MS1)		**Source: 8C14002-19**		Prepared: 03/15/18 Analyzed: 03/16/18						
C6-C12	1020	26.3	mg/kg dry	1050	13.3	95.5	75-125			
>C12-C28	993	26.3	"	1050	38.5	90.7	75-125			
Surrogate: 1-Chlorooctane	*128*		*"*	*105*		*121*	*70-130*			
Surrogate: o-Terphenyl	*61.6*		*"*	*52.6*		*117*	*70-130*			
Matrix Spike Dup (P8C1507-MSD1)		**Source: 8C14002-19**		Prepared: 03/15/18 Analyzed: 03/16/18						
C6-C12	1040	26.3	mg/kg dry	1050	13.3	97.1	75-125	1.66	20	
>C12-C28	1010	26.3	"	1050	38.5	91.9	75-125	1.29	20	
Surrogate: 1-Chlorooctane	*129*		*"*	*105*		*122*	*70-130*			
Surrogate: o-Terphenyl	*62.3*		*"*	*52.6*		*118*	*70-130*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 3/21/2018

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: COG Tequiza Federal 001H
Project #:
Project Loc: Eddy County, NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 8C14004

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TOTAL: TPH: 8015B TX 1005 Ext TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Matals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatilas	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	T-1 @ 6"			3/7/2018	905		1	x								S	X								X			X				X
2	T-1 @ 1'			3/7/2018	907		1	x								S	X								X							X
3	T-2 @ 6"			3/7/2018	915		1	x								S	X								X							X
4	T-2 @ 1'			3/7/2018	920		1	x								S	X								X							X
5	T-3 @ 6"			3/7/2018	940		1	x								S	X								X							X
6	T-3 @ 1'			3/7/2018	947		1	x								S	X								X							X
7	South-1 @ 1'			3/7/2018	1000		1	x								S	X								X							X
8	North-1 @ 1'			3/7/2018	1015		1	x								S	X								X							X
9	Northwest-1 @ 1'			3/7/2018	1025		1	x								S	X								X							X
10	Southwest-2 @ 1'			3/7/2018	1035		1	x								S	X								X							X

Special Instructions:

	Relinquished by:	Date	Time	Received by:	Date	Time
1	Matthew Green	3-14-18	830	Tori Martinez	3-14-18	8:30
2	Tori Martinez	3-14-18	9:15			
3				Received by PBEL:	3/14/18	915

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: 4.0 °C
Adjusted: 0.4 °C Factor 451

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green

Company Name: 2M Environmental Services, LLC.

Company Address: 1219 W. University Blvd.

City/State/Zip: Odessa, Texas 79764

Telephone No: (432)230-3763 Fax No:

Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: COG Tequiza Federal 001H

Project #:

Project Loc: Eddy County, NM

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TOTAL: TPH: TX 1005 Ext TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 6260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	Northeast-1 @ 1'			3/7/2018	1100		1	x								S	X								X			X				X
12	Southeast-2 @ 1'			3/7/2018	1145		1	x								S	X								X			X				X

Special Instructions:

	Date	Time		Date	Time
Relinquished by: Matthew Green	3-14-18	930	Received by: Tori Mishler	3-14-18	8:30
Relinquished by: Tori Mishler	3-14-18	9:15	Received by:		
Relinquished by:			Received by PBEL:	3/14/18	915

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 4 °C
Adjusted: 4 °C
°C Factor 4.5

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green
2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa, TEXAS 79764

Project: COG Tequiza Federal 001H
Project Number: [none]
Location: Eddy County, NM

Lab Order Number: 8C20016

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 04/13/18

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
South-1 @6"	8C20016-01	Soil	03/19/18 09:00	03-20-2018 15:10
North-1 @6"	8C20016-02	Soil	03/19/18 09:05	03-20-2018 15:10
Northwest-1 @6"	8C20016-03	Soil	03/19/18 09:10	03-20-2018 15:10
Southwest -2 @6"	8C20016-04	Soil	03/19/18 09:15	03-20-2018 15:10
Northeast -1 @6"	8C20016-05	Soil	03/19/18 09:20	03-20-2018 15:10
Southeast -2 @6"	8C20016-06	Soil	03/19/18 09:25	03-20-2018 15:10

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

South-1 @6"

8C20016-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.0204	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Toluene	ND	0.204	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.102	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.408	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.204	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*114 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*84.3 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**15.2**	1.02	mg/kg dry	1	P8C2017	03/20/18	03/21/18	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*77.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.2 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	03/20/18	03/20/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

North-1 @6"

8C20016-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.9 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*158 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1.38**	1.06	mg/kg dry	1	P8C2017	03/20/18	03/21/18	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.9 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*89.8 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	03/20/18	03/20/18	calc	

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Northwest-1 @6"

8C20016-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*163 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**28.6**	1.09	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*84.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.5 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

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Southwest -2 @6"

8C20016-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.1 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*103 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**30.7**	1.11	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*74.9 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*78.0 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

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Northeast -1 @6"

8C20016-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0222	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Toluene	ND	0.222	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.111	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.444	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.222	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.1 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*132 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**48.3**	1.11	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*78.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.0 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
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Southeast -2 @6"

8C20016-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Ethylbenzene	**0.0150**	0.00556	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*76.7 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**234**	1.11	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*79.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.3 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2014 - General Preparation (GC)										
Blank (P8C2014-BLK1)				Prepared & Analyzed: 03/20/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0574*		"	*0.0600*		*95.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0780*		"	*0.0600*		*130*	*75-125*			*S-GC*
LCS (P8C2014-BS1)				Prepared & Analyzed: 03/20/18						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	70-130			
Toluene	0.103	0.0100	"	0.100		103	70-130			
Ethylbenzene	0.111	0.00500	"	0.100		111	70-130			
Xylene (p/m)	0.220	0.0200	"				70-130			
Xylene (o)	0.118	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0592*		"	*0.0600*		*98.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0731*		"	*0.0600*		*122*	*75-125*			
LCS Dup (P8C2014-BSD1)				Prepared & Analyzed: 03/20/18						
Benzene	0.0920	0.00100	mg/kg wet	0.100		92.0	70-130	10.5	20	
Toluene	0.101	0.0100	"	0.100		101	70-130	2.11	20	
Ethylbenzene	0.109	0.00500	"	0.100		109	70-130	2.36	20	
Xylene (p/m)	0.210	0.0200	"				70-130		20	
Xylene (o)	0.119	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0597*		"	*0.0600*		*99.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0660*		"	*0.0600*		*110*	*75-125*			
Matrix Spike (P8C2014-MS1)	**Source: 8C20020-01**			Prepared: 03/20/18 Analyzed: 03/21/18						
Benzene	0.0689	0.00101	mg/kg dry	0.101	ND	68.2	80-120			QM-05
Toluene	0.0566	0.0101	"	0.101	ND	56.1	80-120			QM-05
Ethylbenzene	0.0530	0.00505	"	0.101	ND	52.5	80-120			QM-05
Xylene (p/m)	0.0883	0.0202	"		0.00225		80-120			
Xylene (o)	0.0408	0.0101	"		ND		80-120			
Surrogate: 1,4-Difluorobenzene	*0.0615*		"	*0.0606*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0661*		"	*0.0606*		*109*	*75-125*			

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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2014 - General Preparation (GC)										
Matrix Spike Dup (P8C2014-MSD1)		**Source: 8C20020-01**		Prepared: 03/20/18 Analyzed: 03/21/18						
Benzene	0.0782	0.00101	mg/kg dry	0.101	ND	77.4	80-120	12.7	20	QM-05
Toluene	0.0724	0.0101	"	0.101	ND	71.7	80-120	24.4	20	QM-05
Ethylbenzene	0.0787	0.00505	"	0.101	ND	77.9	80-120	39.0	20	QM-05
Xylene (p/m)	0.133	0.0202	"		0.00225		80-120		20	
Xylene (o)	0.0687	0.0101	"		ND		80-120		20	
Surrogate: 1,4-Difluorobenzene	*0.0678*		*"*	*0.0606*		*112*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0703*		*"*	*0.0606*		*116*	*75-125*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2017 - * DEFAULT PREP *** **										
Blank (P8C2017-BLK1)				Prepared & Analyzed: 03/20/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2017-BS1)				Prepared & Analyzed: 03/20/18						
Chloride	415	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P8C2017-BSD1)				Prepared & Analyzed: 03/20/18						
Chloride	414	1.00	mg/kg wet	400		103	80-120	0.290	20	
Duplicate (P8C2017-DUP1)		**Source: 8C16011-15**		Prepared & Analyzed: 03/20/18						
Chloride	622	1.09	mg/kg dry		614			1.18	20	
Duplicate (P8C2017-DUP2)		**Source: 8C20014-01**		Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	228	1.04	mg/kg dry		230			0.769	20	
Matrix Spike (P8C2017-MS1)		**Source: 8C16011-15**		Prepared & Analyzed: 03/20/18						
Chloride	1750	1.09	mg/kg dry	1090	614	105	80-120			
Batch P8C2018 - * DEFAULT PREP *** **										
Blank (P8C2018-BLK1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2018-BS1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	411	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P8C2018-BSD1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	406	1.00	mg/kg wet	400		101	80-120	1.15	20	

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2018 - * DEFAULT PREP *** **										
Duplicate (P8C2018-DUP1)	**Source: 8C20016-03**			Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	25.5	1.09	mg/kg dry		28.6			11.7	20	
Matrix Spike (P8C2018-MS1)	**Source: 8C20016-03**			Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	1100	1.09	mg/kg dry	1090	28.6	98.6	80-120			
Batch P8C2102 - * DEFAULT PREP *** **										
Blank (P8C2102-BLK1)				Prepared & Analyzed: 03/21/18						
% Moisture	ND	0.1	%							
Duplicate (P8C2102-DUP1)	**Source: 8C16011-13**			Prepared & Analyzed: 03/21/18						
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P8C2102-DUP2)	**Source: 8C20002-05**			Prepared & Analyzed: 03/21/18						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P8C2102-DUP3)	**Source: 8C20008-02**			Prepared & Analyzed: 03/21/18						
% Moisture	13.0	0.1	%		12.0			8.00	20	

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2015 - General Preparation (GC)										
Blank (P8C2015-BLK1)				Prepared & Analyzed: 03/20/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*76.8*		*"*	*100*		*76.8*	*70-130*			
Surrogate: o-Terphenyl	*40.2*		*"*	*50.0*		*80.4*	*70-130*			
LCS (P8C2015-BS1)				Prepared & Analyzed: 03/20/18						
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125			
>C12-C28	933	25.0	"	1000		93.3	75-125			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
LCS Dup (P8C2015-BSD1)				Prepared & Analyzed: 03/20/18						
C6-C12	1090	25.0	mg/kg wet	1000		109	75-125	5.04	20	
>C12-C28	986	25.0	"	1000		98.6	75-125	5.56	20	
Surrogate: 1-Chlorooctane	*115*		*"*	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*52.6*		*"*	*50.0*		*105*	*70-130*			
Matrix Spike (P8C2015-MS1)	**Source: 8C20020-01**			Prepared: 03/20/18 Analyzed: 03/21/18						
C6-C12	1060	25.3	mg/kg dry	1010	13.0	103	75-125			
>C12-C28	1060	25.3	"	1010	24.0	102	75-125			
Surrogate: 1-Chlorooctane	*122*		*"*	*101*		*120*	*70-130*			
Surrogate: o-Terphenyl	*45.3*		*"*	*50.5*		*89.8*	*70-130*			
Matrix Spike Dup (P8C2015-MSD1)	**Source: 8C20020-01**			Prepared: 03/20/18 Analyzed: 03/21/18						
C6-C12	1080	25.3	mg/kg dry	1010	13.0	105	75-125	1.98	20	
>C12-C28	1060	25.3	"	1010	24.0	103	75-125	0.420	20	
Surrogate: 1-Chlorooctane	*126*		*"*	*101*		*124*	*70-130*			
Surrogate: o-Terphenyl	*53.6*		*"*	*50.5*		*106*	*70-130*			

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Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 4/13/2018

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: COG Tequiza Federal #001H
Project #:
Project Loc: Eddy County, NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 8C20016

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 8015B	TPH: TX 1005 Ext TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	South-1 @ 6"			3/19/2018	900		1	x								S	X								X			X			X	
	North-1 @ 6'			3/19/2018	905		1	x								S	X								X			X			X	
	Northwest -1 @ 6"			3/19/2018	910		1	x								S	X								X			X			X	
	Southwest -2 @ 6"			3/19/2018	915		1	x								S	X								X			X			X	
	Northeast -1 @ 6"			3/19/2018	920		1	x								S	X								X			X			X	
	Southeast -2 @ 6"			3/19/2018	925		1	x								S	X								X			X			X	

Additional Instructions: Charge rush charges to 2M

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	3-2018	14:11		3/20/18	14:11
	3/20/18		Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				3/20/18	0511

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: °C
Adjusted: °C Factor 0.5

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green
2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa, TEXAS 79764

Project: COG Tequiza Federal 001H
Project Number: [none]
Location: Eddy County NM

Lab Order Number: 8C23003

NELAP/TCEQ # T104704516-17-8

Report Date: 03/26/18

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-3 @ 2'	8C23003-01	Soil	03/07/18 09:51	03-23-2018 13:45

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

T-3 @ 2'

8C23003-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**503**	1.09	mg/kg dry	1	P8C2607	03/26/18	03/26/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C2610	03/26/18	03/26/18	ASTM D2216	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2607 - * DEFAULT PREP *** **										
Blank (P8C2607-BLK1)				Prepared & Analyzed: 03/26/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2607-BS1)				Prepared & Analyzed: 03/26/18						
Chloride	414	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P8C2607-BSD1)				Prepared & Analyzed: 03/26/18						
Chloride	410	1.00	mg/kg wet	400		103	80-120	0.903	20	
Duplicate (P8C2607-DUP1)		**Source: 8C23003-01**		Prepared & Analyzed: 03/26/18						
Chloride	507	1.09	mg/kg dry		503			0.657	20	
Duplicate (P8C2607-DUP2)		**Source: 8C20021-03**		Prepared & Analyzed: 03/26/18						
Chloride	ND	1.11	mg/kg dry		ND				20	
Matrix Spike (P8C2607-MS1)		**Source: 8C23003-01**		Prepared & Analyzed: 03/26/18						
Chloride	1600	1.09	mg/kg dry	1090	503	101	80-120			
Batch P8C2610 - % Solids										
Blank (P8C2610-BLK1)				Prepared & Analyzed: 03/26/18						
% Moisture	ND	0.1	%							
Duplicate (P8C2610-DUP1)		**Source: 8C22004-27**		Prepared & Analyzed: 03/26/18						
% Moisture	12.0	0.1	%		13.0			8.00	20	
Duplicate (P8C2610-DUP2)		**Source: 8C23004-05**		Prepared & Analyzed: 03/26/18						
% Moisture	7.0	0.1	%		11.0			44.4	20	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Notes and Definitions

BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By:  Date: 3/26/2018

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763
Fax No:
Sampler Signature: Matthew Green
e-mail: mgreen@2m-environmental.com

Project Name: COG Tequiza Federal #001H
Project #:
Project Loc: Eddy County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 8C23003

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TPH: TX 1005 Ext	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 6260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	T-3 @ 2'			3-719	951		1	x								S												X			X	

Special Instructions: Charge 2M for rush charges

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	3-23-18	12:45		3/23/18	12:45
	3/23/18	13:40			
			Received by PBEL:	3/23/18	1345

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 2.4 9.0 °C
Adjusted: 2.4 °C Factor 3.0

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Matt Green
2M Environmental Services, LLC.
1219 W. University Blvd.
Odessa, TEXAS 79764

Project: COG Tequiza Federal 001H
Project Number: [none]
Location: Eddy County, NM

Lab Order Number: 8C20016

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 03/21/18

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
South-1 @6"	8C20016-01	Soil	03/19/18 09:00	03-20-2018 15:10
North-1 @6"	8C20016-02	Soil	03/20/18 09:05	03-20-2018 15:10
Northwest-1 @6"	8C20016-03	Soil	03/20/18 09:10	03-20-2018 15:10
Southwest -2 @6"	8C20016-04	Soil	03/20/18 09:15	03-20-2018 15:10
Northeast -1 @6"	8C20016-05	Soil	03/20/18 09:20	03-20-2018 15:10
Southeast -2 @6"	8C20016-06	Soil	03/20/18 09:25	03-20-2018 15:10

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

South-1 @6"

8C20016-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.0204	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Toluene	ND	0.204	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.102	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.408	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.204	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*114 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*84.3 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**15.2**	1.02	mg/kg dry	1	P8C2017	03/20/18	03/21/18	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*77.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.2 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	03/20/18	03/20/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

North-1 @6"

8C20016-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Toluene	ND	0.0106	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.00532	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0213	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.0106	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.9 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*158 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1.38**	1.06	mg/kg dry	1	P8C2017	03/20/18	03/21/18	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P8C2015	03/20/18	03/20/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.9 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*89.8 %*	*70-130*		*P8C2015*	*03/20/18*	*03/20/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	03/20/18	03/20/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Northwest-1 @6"

8C20016-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Toluene	ND	0.0109	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.00543	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0217	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.0109	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*163 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**28.6**	1.09	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*84.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.5 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Southwest -2 @6"

8C20016-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Ethylbenzene	ND	0.00556	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/20/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.1 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*103 %*	*75-125*		*P8C2014*	*03/20/18*	*03/20/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**30.7**	1.11	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*74.9 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*78.0 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Northeast -1 @6"

8C20016-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0222	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Toluene	ND	0.222	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Ethylbenzene	ND	0.111	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.444	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.222	mg/kg dry	20	P8C2014	03/20/18	03/21/18	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.1 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*132 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	*S-GC*
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**48.3**	1.11	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*78.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.0 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Southeast -2 @6"

8C20016-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Toluene	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Ethylbenzene	**0.0150**	0.00556	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (p/m)	ND	0.0222	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Xylene (o)	ND	0.0111	mg/kg dry	1	P8C2014	03/20/18	03/21/18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*76.7 %*	*75-125*		*P8C2014*	*03/20/18*	*03/21/18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**234**	1.11	mg/kg dry	1	P8C2018	03/20/18	03/21/18	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P8C2102	03/21/18	03/21/18	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P8C2015	03/20/18	03/21/18	TPH 8015M	
Surrogate: 1-Chlorooctane		*79.1 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*82.3 %*	*70-130*		*P8C2015*	*03/20/18*	*03/21/18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	03/20/18	03/21/18	calc	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2014 - General Preparation (GC)										
Blank (P8C2014-BLK1)				Prepared & Analyzed: 03/20/18						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.0100	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.0200	"							
Xylene (o)	ND	0.0100	"							
Surrogate: 1,4-Difluorobenzene	*0.0574*		"	*0.0600*		*95.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0780*		"	*0.0600*		*130*	*75-125*			*S-GC*
LCS (P8C2014-BS1)				Prepared & Analyzed: 03/20/18						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	70-130			
Toluene	0.103	0.0100	"	0.100		103	70-130			
Ethylbenzene	0.111	0.00500	"	0.100		111	70-130			
Xylene (p/m)	0.220	0.0200	"				70-130			
Xylene (o)	0.118	0.0100	"				70-130			
Surrogate: 1,4-Difluorobenzene	*0.0592*		"	*0.0600*		*98.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0731*		"	*0.0600*		*122*	*75-125*			
LCS Dup (P8C2014-BSD1)				Prepared & Analyzed: 03/20/18						
Benzene	0.0920	0.00100	mg/kg wet	0.100		92.0	70-130	10.5	20	
Toluene	0.101	0.0100	"	0.100		101	70-130	2.11	20	
Ethylbenzene	0.109	0.00500	"	0.100		109	70-130	2.36	20	
Xylene (p/m)	0.210	0.0200	"				70-130		20	
Xylene (o)	0.119	0.0100	"				70-130		20	
Surrogate: 1,4-Difluorobenzene	*0.0597*		"	*0.0600*		*99.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0660*		"	*0.0600*		*110*	*75-125*			
Matrix Spike (P8C2014-MS1)	**Source: 8C20020-01**			Prepared: 03/20/18 Analyzed: 03/21/18						
Benzene	0.0689	0.00101	mg/kg dry	0.101	ND	68.2	80-120			QM-05
Toluene	0.0566	0.0101	"	0.101	ND	56.1	80-120			QM-05
Ethylbenzene	0.0530	0.00505	"	0.101	ND	52.5	80-120			QM-05
Xylene (p/m)	0.0883	0.0202	"		0.00225		80-120			
Xylene (o)	0.0408	0.0101	"		ND		80-120			
Surrogate: 1,4-Difluorobenzene	*0.0615*		"	*0.0606*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0661*		"	*0.0606*		*109*	*75-125*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
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Odessa TEXAS, 79764	Project Manager: Matt Green	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2014 - General Preparation (GC)										
Matrix Spike Dup (P8C2014-MSD1)		**Source: 8C20020-01**		Prepared: 03/20/18 Analyzed: 03/21/18						
Benzene	0.0782	0.00101	mg/kg dry	0.101	ND	77.4	80-120	12.7	20	QM-05
Toluene	0.0724	0.0101	"	0.101	ND	71.7	80-120	24.4	20	QM-05
Ethylbenzene	0.0787	0.00505	"	0.101	ND	77.9	80-120	39.0	20	QM-05
Xylene (p/m)	0.133	0.0202	"		0.00225		80-120		20	
Xylene (o)	0.0687	0.0101	"		ND		80-120		20	
Surrogate: 1,4-Difluorobenzene	*0.0678*		*"*	*0.0606*		*112*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.0703*		*"*	*0.0606*		*116*	*75-125*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2017 - * DEFAULT PREP *** **										
Blank (P8C2017-BLK1)				Prepared & Analyzed: 03/20/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2017-BS1)				Prepared & Analyzed: 03/20/18						
Chloride	415	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P8C2017-BSD1)				Prepared & Analyzed: 03/20/18						
Chloride	414	1.00	mg/kg wet	400		103	80-120	0.290	20	
Duplicate (P8C2017-DUP1)		**Source: 8C16011-15**		Prepared & Analyzed: 03/20/18						
Chloride	622	1.09	mg/kg dry		614			1.18	20	
Duplicate (P8C2017-DUP2)		**Source: 8C20014-01**		Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	228	1.04	mg/kg dry		230			0.769	20	
Matrix Spike (P8C2017-MS1)		**Source: 8C16011-15**		Prepared & Analyzed: 03/20/18						
Chloride	1750	1.09	mg/kg dry	1090	614	105	80-120			
Batch P8C2018 - * DEFAULT PREP *** **										
Blank (P8C2018-BLK1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8C2018-BS1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	411	1.00	mg/kg wet	400		103	80-120			
LCS Dup (P8C2018-BSD1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	406	1.00	mg/kg wet	400		101	80-120	1.15	20	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
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Odessa TEXAS, 79764	Project Manager: Matt Green	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2018 - * DEFAULT PREP *** **										
Duplicate (P8C2018-DUP1)	**Source: 8C20016-03**			Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	25.5	1.09	mg/kg dry		28.6			11.7	20	
Matrix Spike (P8C2018-MS1)	**Source: 8C20016-03**			Prepared: 03/20/18 Analyzed: 03/21/18						
Chloride	1100	1.09	mg/kg dry	1090	28.6	98.6	80-120			
Batch P8C2102 - * DEFAULT PREP *** **										
Blank (P8C2102-BLK1)				Prepared & Analyzed: 03/21/18						
% Moisture	ND	0.1	%							
Duplicate (P8C2102-DUP1)	**Source: 8C16011-13**			Prepared & Analyzed: 03/21/18						
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (P8C2102-DUP2)	**Source: 8C20002-05**			Prepared & Analyzed: 03/21/18						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P8C2102-DUP3)	**Source: 8C20008-02**			Prepared & Analyzed: 03/21/18						
% Moisture	13.0	0.1	%		12.0			8.00	20	

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P8C2015 - General Preparation (GC)										
Blank (P8C2015-BLK1)				Prepared & Analyzed: 03/20/18						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*76.8*		*"*	*100*		*76.8*	*70-130*			
Surrogate: o-Terphenyl	*40.2*		*"*	*50.0*		*80.4*	*70-130*			
LCS (P8C2015-BS1)				Prepared & Analyzed: 03/20/18						
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125			
>C12-C28	933	25.0	"	1000		93.3	75-125			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
LCS Dup (P8C2015-BSD1)				Prepared & Analyzed: 03/20/18						
C6-C12	1090	25.0	mg/kg wet	1000		109	75-125	5.04	20	
>C12-C28	986	25.0	"	1000		98.6	75-125	5.56	20	
Surrogate: 1-Chlorooctane	*115*		*"*	*100*		*115*	*70-130*			
Surrogate: o-Terphenyl	*52.6*		*"*	*50.0*		*105*	*70-130*			
Matrix Spike (P8C2015-MS1)	**Source: 8C20020-01**			Prepared: 03/20/18 Analyzed: 03/21/18						
C6-C12	1060	25.3	mg/kg dry	1010	13.0	103	75-125			
>C12-C28	1060	25.3	"	1010	24.0	102	75-125			
Surrogate: 1-Chlorooctane	*122*		*"*	*101*		*120*	*70-130*			
Surrogate: o-Terphenyl	*45.3*		*"*	*50.5*		*89.8*	*70-130*			
Matrix Spike Dup (P8C2015-MSD1)	**Source: 8C20020-01**			Prepared: 03/20/18 Analyzed: 03/21/18						
C6-C12	1080	25.3	mg/kg dry	1010	13.0	105	75-125	1.98	20	
>C12-C28	1060	25.3	"	1010	24.0	103	75-125	0.420	20	
Surrogate: 1-Chlorooctane	*126*		*"*	*101*		*124*	*70-130*			
Surrogate: o-Terphenyl	*53.6*		*"*	*50.5*		*106*	*70-130*			

2M Environmental Services, LLC.	Project: COG Tequiza Federal 001H	Fax:
1219 W. University Blvd.	Project Number: [none]	
Odessa TEXAS, 79764	Project Manager: Matt Green	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 3/21/2018

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Matt Green
Company Name: 2M Environmental Services, LLC.
Company Address: 1219 W. University Blvd.
City/State/Zip: Odessa, Texas 79764
Telephone No: (432)230-3763 Fax No:
Sampler Signature: Matthew Green e-mail: mgreen@2m-environmental.com

Project Name: COG Tequiza Federal #001H
Project #:
Project Loc: Eddy County, NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 8C20016

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH: 418.1 8015M 8015B	TPH: TX 1005 Ext TX 1008	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	South-1 @ 6"			3/19/2018	900		1	x								S	X								X			X			X	
2	North-1 @ 6'			3/19/2018	905		1	x								S	X								X			X			X	
3	Northwest -1 @ 6"			3/19/2018	910		1	x								S	X								X			X			X	
4	Southwest -2 @ 6"			3/19/2018	915		1	x								S	X								X			X			X	
5	Northeast -1 @ 6"			3/19/2018	920		1	x								S	X								X			X			X	
6	Southeast -2 @ 6"			3/19/2018	925		1	x								S	X								X			X			X	

Additional Instructions: Charge rush charges to 2M

Relinquished by:	Date	Time	Received by:	Date	Time
Matthew Green	3-2018	14:11		3/20/18	14:11
	3/20/18		Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				3/20/18	0511

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: °C
Adjusted: °C Factor 0.5

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 160303

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	229137
	Action Number: 160303
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation and closure must be in compliance with 19.15.29.12 and 19.15.29.13 NMAC.	11/29/2022
bhall	In the "Sampling Plan" portion of the report, it states "To collect representative samples, composite samples (5-point composite) will be collected every 600 square feet (25 x 25) for the final confirmation sampling for the constituents of concern." The OCD approves 5-point composite samples representative of NO MORE THAN 400 SQUARE FEET. All other sampling is approved per the workplan.	11/29/2022
bhall	All confirmation samples must be analyzed for all constituents listed in Table I.	11/29/2022
bhall	2RP-4632 closed. Please refer to incident #NAB1805142690 in all future communication.	11/29/2022
bhall	Please submit a complete closure report through the OCD Permitting website by 3/3/2023.	11/29/2022