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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: _____ Title: _____

Signature: Sheldon Hitson Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Sheldon Hitson Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: Sheldon Hitson _____ 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: _____

Remediation Summary and Soil Closure Request

COG Operating, LLC
Van Gogh 101H
Lea County, New Mexico
Unit Letter B, Section 11, Township 24 South, Range 34 East
Latitude 32.23872 North, Longitude 103.44071 West
NMOCD Reference No. NRM2003537752

Prepared By:

Etech Environmental & Safety Solutions, Inc.
3100 Plains Highway
Lovington, New Mexico 88260

Lance Crenshaw

Joel W. Lowry

Midland • San Antonio • Lubbock • Lovington • Lafayette

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of COG Operating, LLC, has prepared this Remediation Summary and Soil Closure Request for the release site known as the Van Gogh 101H (henceforth, "Site"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.23872 Longitude: -103.44071

Provided GPS are in WGS84 format.

Site Name:	Van Gogh 101H	Site Type:	Tank Battery
Date Release Discovered:	12/10/2018	API # (if applicable):	30-025-45255

Unit Letter	Section	Township	Range	County
B	11	24S	34E	Lea

Surface Owner: [ ] State [ ] Federal [ ] Tribal [X] Private (Name Quail Ranch, LLC)

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 10	Volume Recovered (bbls) 2
[X] Produced Water	Volume Released (bbls) 10	Volume Recovered (bbls) 2
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	[ ] Yes [ ] No [ ] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
The release was attributed to internal erosion due sand, which resulted in an overspray onto the well pad.

Initial Response

- [X] The source of the release has been stopped.
- [X] The impacted area has been secured to protect human health and the environment.
- [X] Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- [X] All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	44 Feet
Did the 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 any occupied permanent residence, school, hospital, institution or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within the 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

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1, 2, 4, and 5.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standard for the Site are as follows:

Probable Depth to Groundwater	Constituent	Method	Closure Criteria	Reclamation Standard*
44	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg	600 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	100 mg/kg	100 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	-	-
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg	10 mg/kg

* The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas.

4.0 REMEDIATION ACTIVITIES SUMMARY

On August 4, 2020, COG conducted an initial release assessment at the Site. During the initial release assessment, four (4) hand-augered soil bores were advanced within the area inferred to have been affected by the release. During the advancement of the hand-augered soil bores, four (4) soil samples P(SP-1 through SP-4) were collected and submitted to the laboratory for analysis. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria in each of the submitted soil samples with the exception of soil samples SP-3, which exhibited a TPH and chloride concentrations of 171 mg/kg and 646 mg/kg, respectively.

On September 8, 2020, remediation activities commenced at the Site. In accordance with the NMOCD, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending transfer to an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggested BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria.

On September 9, 2020, COG collected seven (7) excavation confirmation soil samples (B-1 through B-6 and SW-1) from the floor and sidewalls of the excavated area. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations below the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples, with the exception of soil sample B-4, which exhibited a chloride concentration of 1,150 mg/kg.

On September 10, 2020, excavation activities resumed at the Site. Impacted soil in the area characterized by soil sample B-4 was excavated and transported to an NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected, an additional confirmation soil sample (B-4) and submitted in to the laboratory for analysis of chloride concentration which were determined to be 144 mg/kg.

On October 14, 2020, a Closure Report was submitted to the NMOCD detailing remediation activities and laboratory analytical results from confirmation soil sampling. The NMOCD rejected the Closure Report and requested that additional soil samples be collected from 1 Ft. intervals to a depth of 4 Ft. bgs.

On February 9, 2021, COG revisited the remediation Site. In accordance with the NMOCD, a hand-auger was utilized to collect soil samples from soil remaining in-situ beneath the former excavation. During the advancement of the hand-augered soil bores, chloride was detected above 600 mg/kg in one (1) of the soil samples collected in the area characterized by soil sample BH-4.

On March 15, 2021, Etech revisited the remediation site. The area characterized by soil sample BH-4 was reexcavated. The floor and sidewalls of the excavation was advanced until chloride field test results suggested chloride concentrations were below the NMOCD Closure Criteria. Upon excavating impacted soil affected above the NMOCD Closure Criteria, Etech collected five (5) excavation confirmation soil samples (FL1 @ 3', NW, SW, WW and EW) were collected from the floor and sidewalls of the excavated area. The collected soil samples were submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations ranged from 112 mg/kg in soil sample FL1 @ 3' to 448 mg/kg in soil sample

A site and sample location map is provided as Figure 3. A soil chemistry table is provided as Table 1. Field data and soil profile logs, if applicable, are provided as Appendix B. Laboratory analytical reports are provided as Appendix C.

The final dimensions of the excavated area were 60 feet in length, and ranged from 8 to 12 feet in width and 1 to 3 feet in depth. During the course of remediation activities, approximately 116 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

5.0 RESTORATION, RECLAMATION, AND RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was graded and compacted to achieve erosion control, stability, and preservation of surface water flow. The affected area was limited to an active production pad therefore reseeding will not be required.

6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria.

Based on laboratory analytical results and field activities conducted to date, Etech recommends COG Operating, LLC, provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Van Gogh 101H Site.

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Remediation Summary and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or COG Operating, LLC.

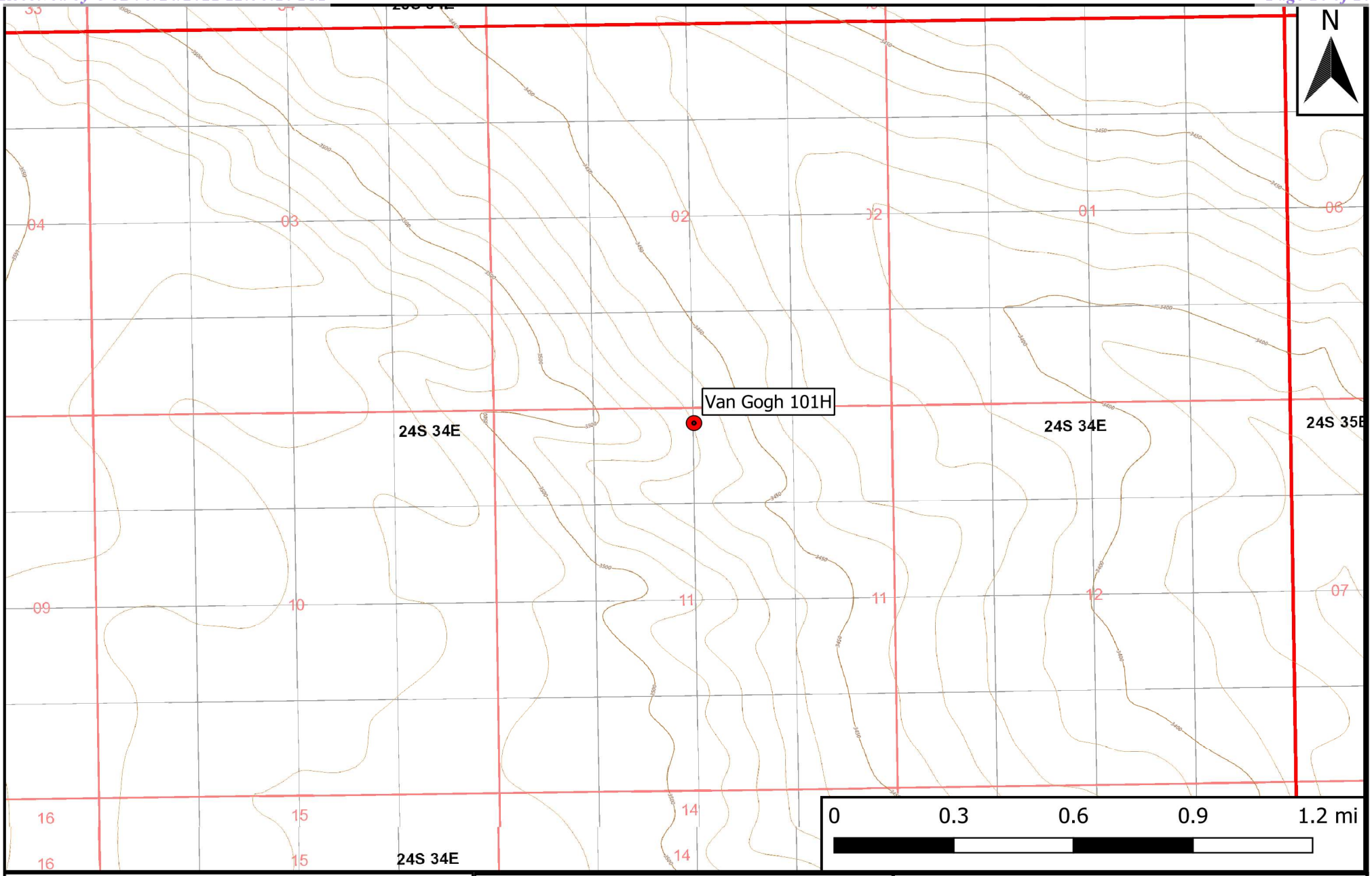
8.0 DISTRIBUTION

COG Operating, LLC
600 West Illinois Avenue
Midland, TX 79701

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1220 South St. Francis Drive
Santa Fe, NM 87505

(Electronic Submission)

Figure 1
Topographic Map



Legend

- Site Location

Figure 1

Topographic Map

COG Operating, LLC

Van Gogh 101H

GPS: 32.23872, -103.44071

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 12/20/19

Figure 2
Aerial Proximity Map

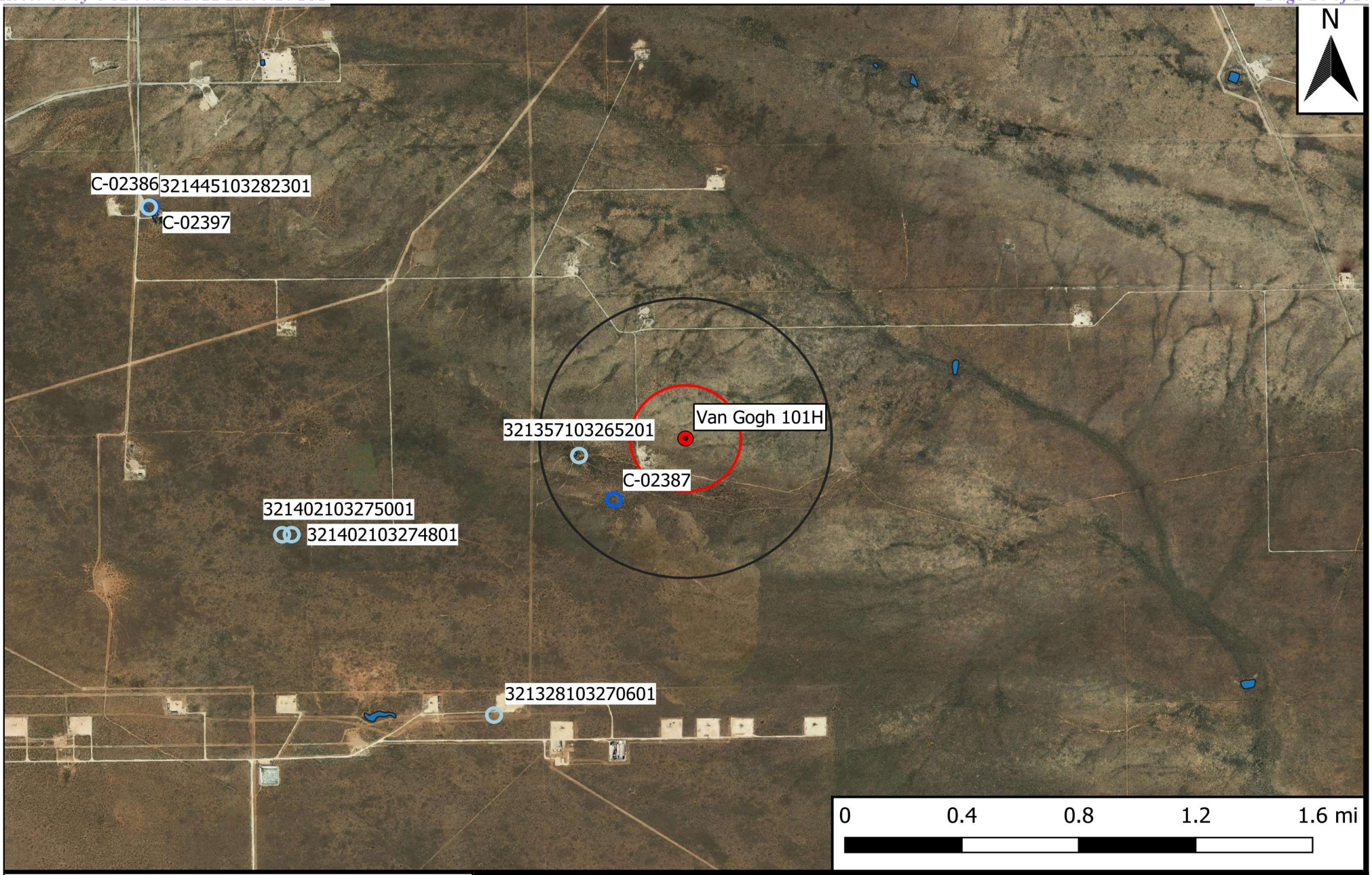
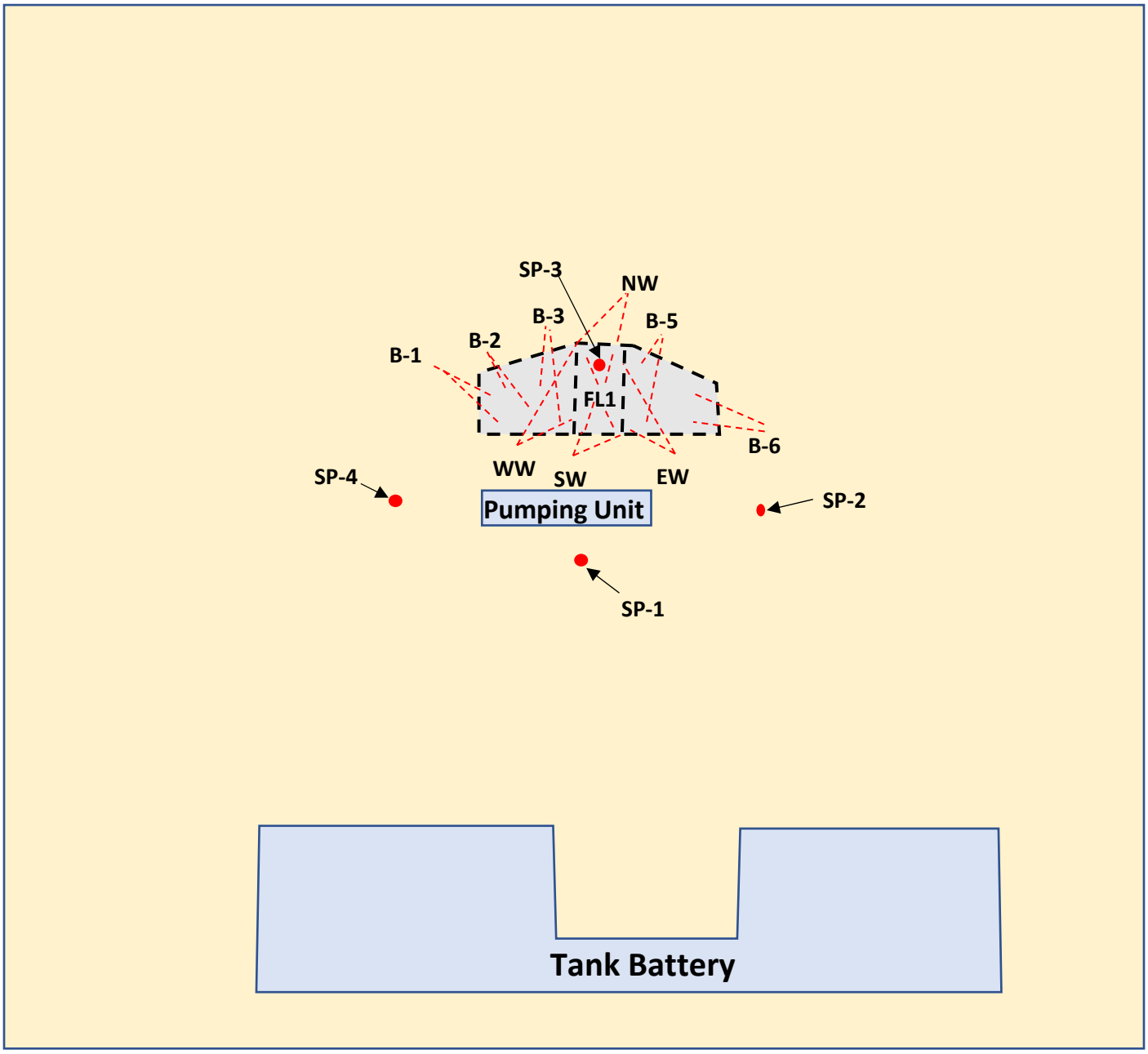


Figure 2
Aerial Map
COG Operating, LLC
Van Gogh 101H
GPS: 32.23872, -103.44071
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 12/20/19

Figure 3
Site and Sample Location Map



Legend:

- Composite Sample Location
- Caliche Well Pad
- Equipment
- Sample Point

Figure 3

Site and Sample Location Map
Fasken Oil and Ranch, Ltd.
Denton Trunkline
GPS: 33.02793, -103.16754
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag
Checked: jwl Date: 3/23/21

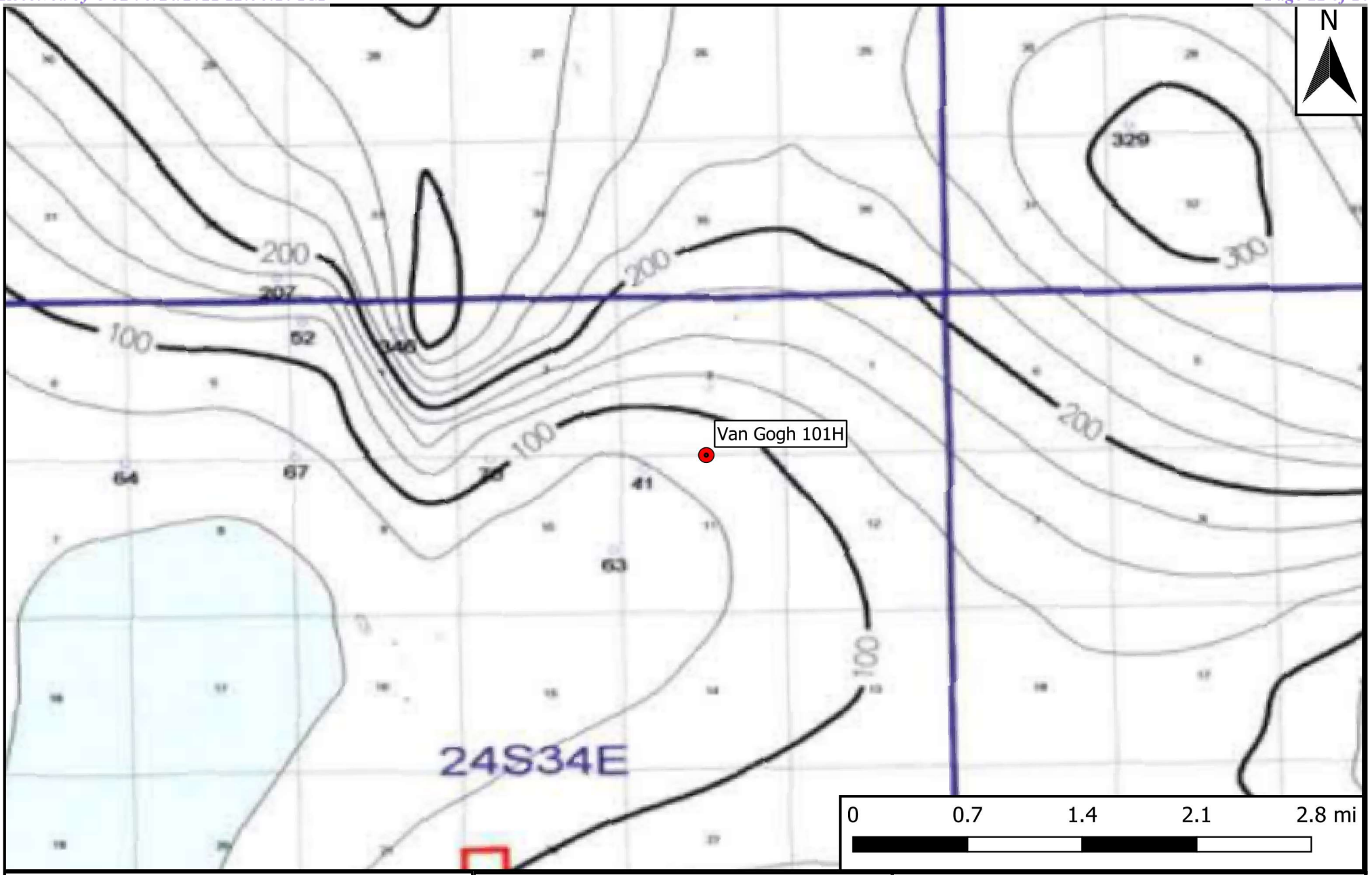
Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

Table 1
Concentrations of BTEX, TPH, and Chloride in Soil
COG Operating, LLC
Van Gogh 101H
NMOCD Ref. #: NRM2003537752

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
Sample ID	**Date**	**Depth**	**Soil Status**	**SW 846 8021B**		**SW 846 8015M Ext.**					**4500 Cl**
				Benzene (mg/kg)	**BTEX (mg/kg)**	**GRO C_6-C_{10} (mg/kg)**	**DRO C_{10}-C_{28} (mg/kg)**	**GRO + DRO C_6-C_{28} (mg/kg)**	**ORO C_{28}-C_{36} (mg/kg)**	**TPH C_6-C_{36} (mg/kg)**	**Chloride (mg/kg)**
SP-1	8/4/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	358
SP-2	8/4/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	101
SP-3	8/4/2020	0-6"	Excavated	ND	ND	ND	171	ND	ND	**171**	**646**
SP-4	8/4/2020	0-6"	In-Situ	ND	ND	ND	62.2	62.2	ND	62.2	101
B-1	9/9/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	73.0
B-2	9/9/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	85.0
B-3	9/9/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	158
B-4	9/9/2020	1'	Excavated	ND	ND	ND	62.2	62.2	ND	62.2	**1,150**
B-5	9/9/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	165
B-6	9/9/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	230
SW-1	9/9/2020	N/A	In-Situ	ND	ND	ND	ND	ND	ND	ND	441
B-4	9/10/2020	1/2/1900	Excavated	ND	ND	ND	ND	ND	ND	ND	144
FL1 @ 3'	3/15/2021	3'	In-Situ	-	-	-	-	-	-	-	112
NW	3/15/2021	0-3'	In-Situ	-	-	-	-	-	-	-	144
SW	3/15/2021	0-3'	In-Situ	-	-	-	-	-	-	-	160
WW	3/15/2021	0-3'	In-Situ	-	-	-	-	-	-	-	448
EW	3/15/2021	0-3'	In-Situ	-	-	-	-	-	-	-	400

NOTES:
- = Sample not analyzed for that constituent.
Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A
Depth to Groundwater Information



Legend

- Site Location

Figure 4

Inferred Depth to Groundwater Trend Map

COG Operating, LLC

Van Gogh 101H

GPS: 32.23872, -103.44071

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 12/20/19

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	Distance	Depth Well	Depth Water	Water Column
C 02387		CUB	LE			1	11	24S	34E	646513	3567613*	527	62	40	22

Average Depth to Water: **40 feet**

Minimum Depth: **40 feet**

Maximum Depth: **40 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 646908.27 **Northing (Y):** 3567963 **Radius:** 804.67

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

12/20/19 11:21 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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	Distance	Depth Well	Depth Water	Water Column
C 02387		CUB	LE			1	11	24S	34E	646513	3567613*	527	62	40	22
C 03932 POD13		CUB	LE	4	2	3	15	24S	34E	645314	3565203	3186	90		

Average Depth to Water: **40 feet**

Minimum Depth: **40 feet**

Maximum Depth: **40 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 646908.27 **Northing (Y):** 3567963 **Radius:** 3220

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

12/20/19 11:22 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03932 POD13	4	2	3	15	24S	34E	645314	3565203

Driller License: 1222 **Driller Company:** PETERSON DRILLING & TESTING INC.

Driller Name: LEE PETERSON

Drill Start Date:	02/10/2016	**Drill Finish Date:**	02/11/2016	**Plug Date:**	
Log File Date:	03/01/2016	**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	90 feet	**Depth Water:**	

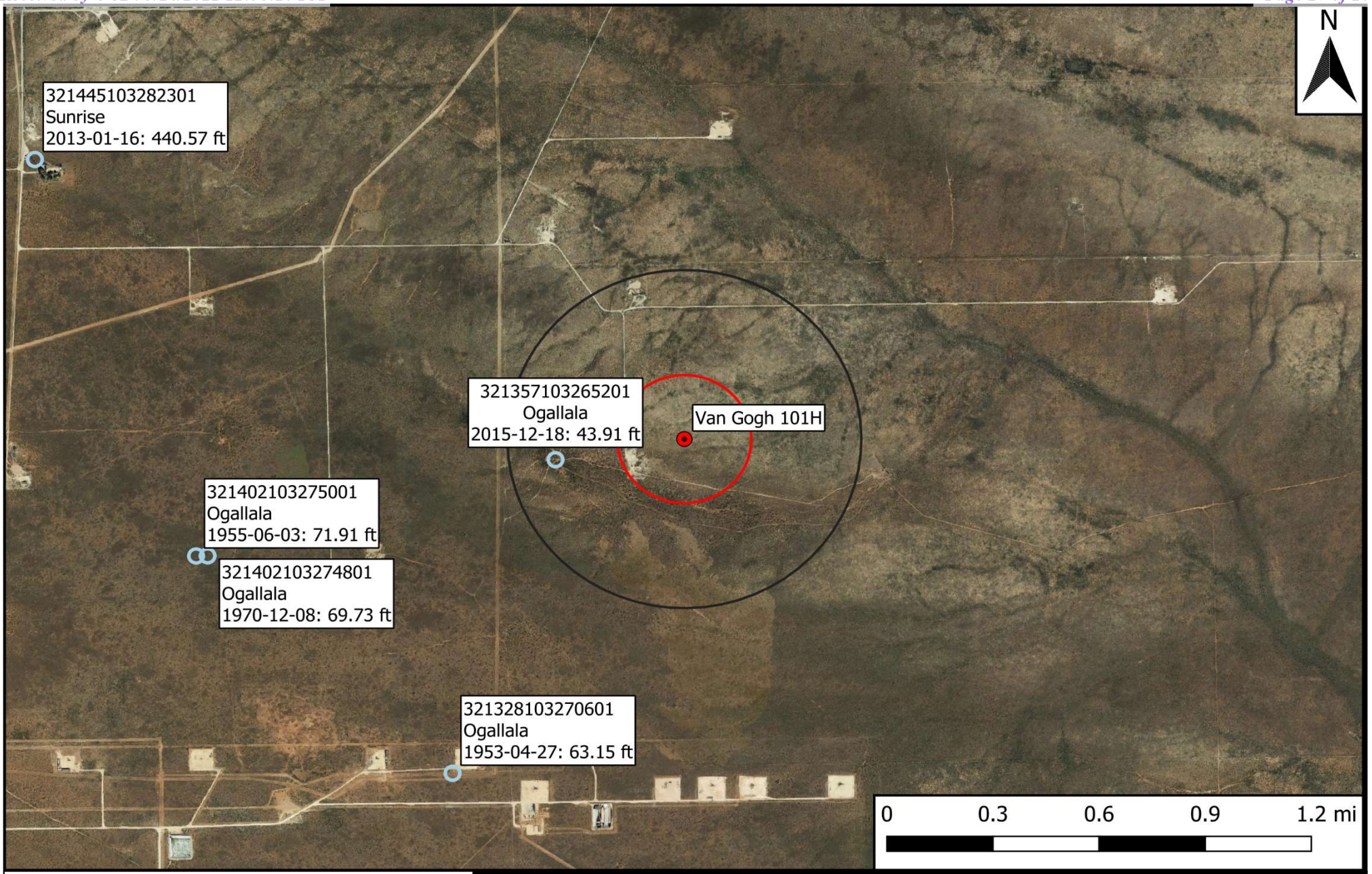
New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 02387			1	11	24S	34E	646513	3567613*

Driller License:		**Driller Company:**			
Driller Name:	UNKNOWN				
Drill Start Date:		**Drill Finish Date:**	12/31/1916	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	3 GPM
Casing Size:	6.00	**Depth Well:**	62 feet	**Depth Water:**	40 feet

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



Legend
- Site Location
- Well - USGS
- 0.5 Mi Radius
- 1000 Ft Radius

Figure 5
USGS Well Proximity Map
COG Operating, LLC
Van Gogh 101H
GPS: 32.23872, -103.44071
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 12/20/19

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321357103265201

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

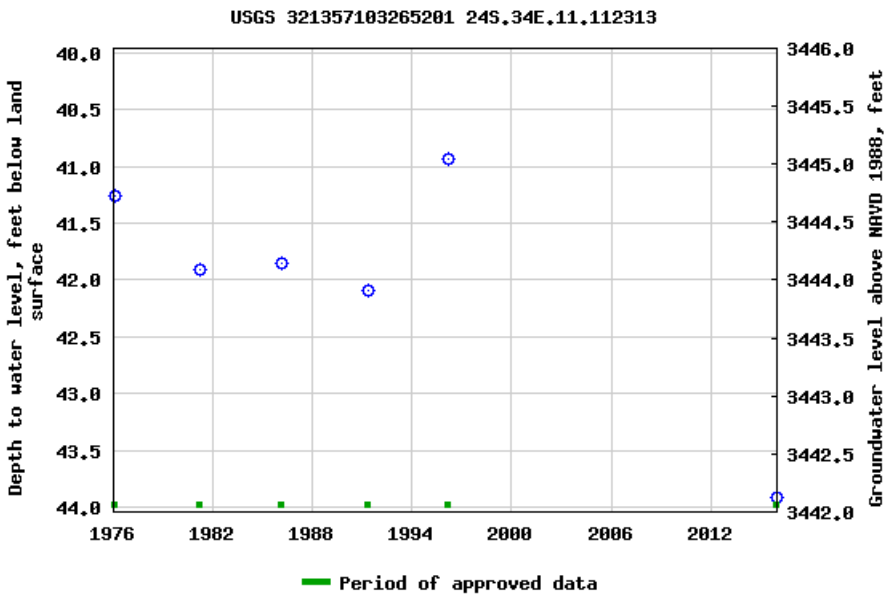
USGS 321357103265201 24S.34E.11.112313

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°14'16.5", Longitude 103°26'49.0" NAD83
Land-surface elevation 3,486 feet above NAVD88
This well is completed in the Ogallala Formation (121OGLL) 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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Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-12-20 13:09:27 EST
0.59 0.47 nadww02

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321402103274801

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

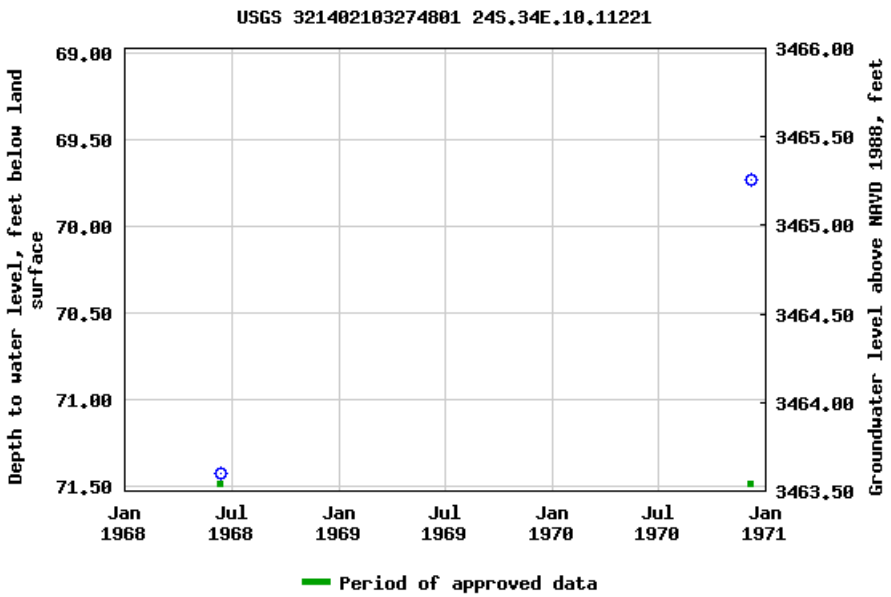
USGS 321402103274801 24S.34E.10.11221

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°14'02", Longitude 103°27'48" NAD27
Land-surface elevation 3,535 feet above NAVD88
This well is completed in the Ogallala Formation (121OGLL) 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

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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-12-20 13:09:28 EST
0.57 0.51 nadww02

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321402103275001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

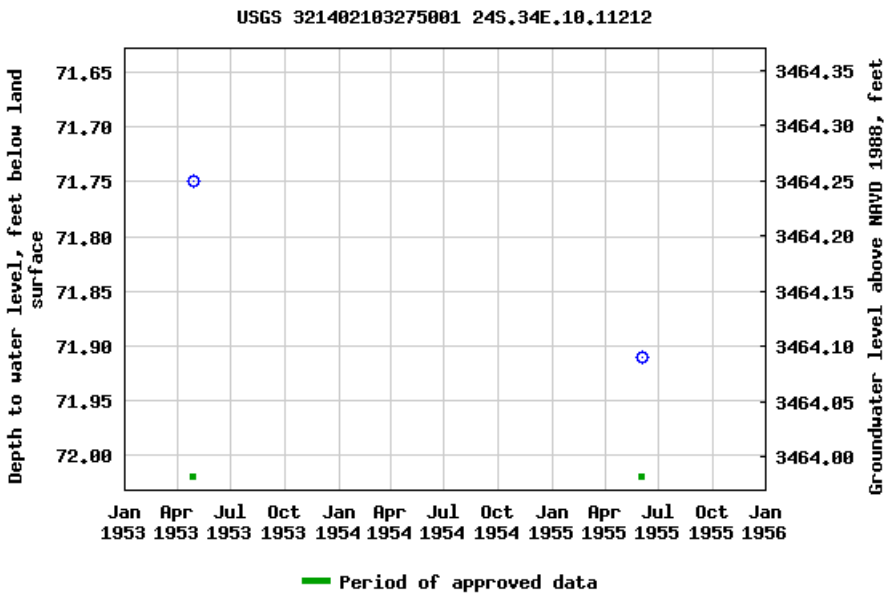
USGS 321402103275001 24S.34E.10.11212

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°14'02", Longitude 103°27'50" NAD27
Land-surface elevation 3,536 feet above NAVD88
The depth of the well is 83 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) 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
Automated retrievals
Help
Data Tips
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-12-20 13:09:28 EST
0.53 0.47 nadww02

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321445103282301

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

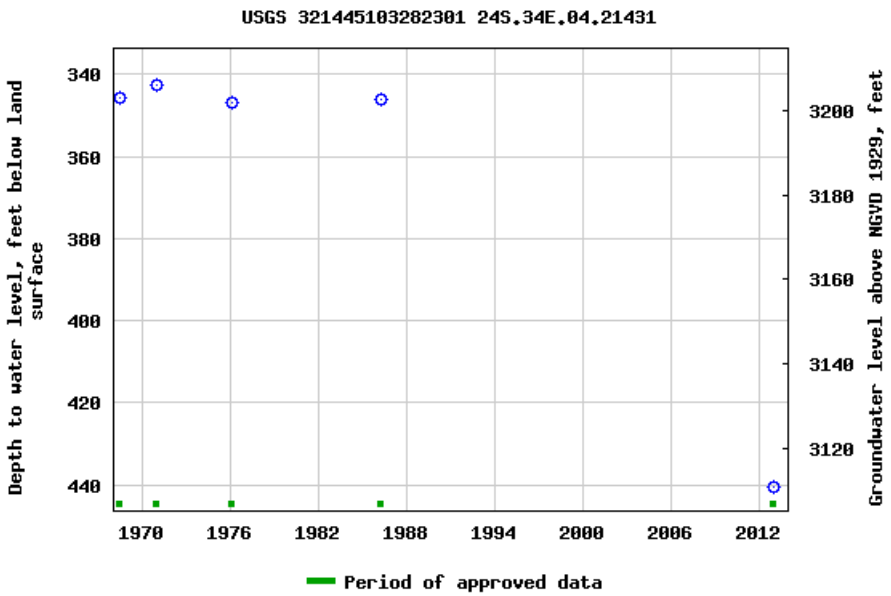
USGS 321445103282301 24S.34E.04.21431

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°15'03.8", Longitude 103°28'18.7" NAD83
Land-surface elevation 3,550.00 feet above NGVD29
The depth of the well is 630 feet below land surface.
This well is completed in the Sunrise Formation (231SNRS) 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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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-12-20 13:09:29 EST
0.55 0.48 nadww02

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321328103270601

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

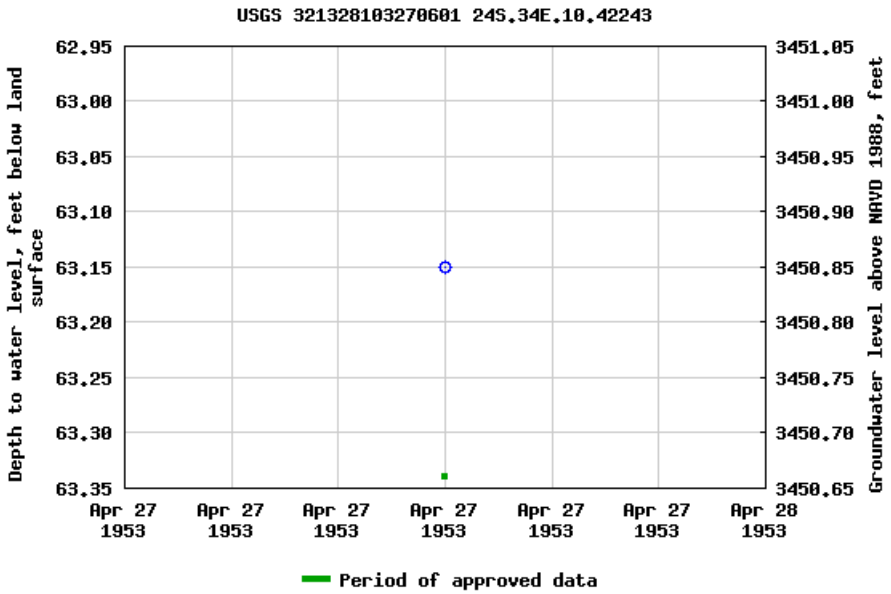
USGS 321328103270601 24S.34E.10.42243

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

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°13'28", Longitude 103°27'06" NAD27
Land-surface elevation 3,514 feet above NAVD88
The depth of the well is 93 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) 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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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2019-12-20 13:09:26 EST
0.55 0.45 nadww02

Appendix B
Field Data and Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

Remediation Log

Project: Van Gogh 101H
Project Number: 11667 Latitude: 32.23872 0 Longitude: -103.44071 0

	Yes	No
Confirmation of Active One Call? One Call No. 20 SE030578	☐	☐
Confirmation of On-Site JSA?	☐	☐

Date:	Notes	Yds Out	Yds In
	****Begin Remediation Activities****		
9-8-20	Excavate & ~~Haul off~~ stockpile Cont Soil		
9-9-20	Haul off Contaminated Soil to North Delaware Basin Land fill Estimated 12yds	72 yds	
9-10-20	Excavate East 1/3 of Excavation Down 2ft & Resample Bottom		
9-11-20	Haul off one load to North Delaware Landfill	20 yds	
	Haul in clean Caliche for Backfill		80 yds
	Backfill & Cross up Excavation		
3-15-21	Reopen Excavation, Field Test, Sample		
3-16-21	Haul Out Impacted Soil	24	24
3-17-21	Backfill Excavated Area		
	****Begin Backfill Activies****		
	****Complete Remediation Activities****		

Total Yds Out	Total Yds In
116	104

	Yes	No
Pictures of Open Excavation Prior to Backfill	☑	☐
Relevant Information in Project Tracker?	☑	☐

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 9-10-20

Project: Van Gogh 101H

Project Number: 11667 Latitude: 0 Longitude: 0

Sample ID	PID/Odor	Chloride Conc.	GPS
B 4	none	240	
1115 FL 1 @ 3	none	316	
NW	—	148	
SW	—	180	
WW	—	288	
EW	—	328	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 1/28/20 (27)

Project: Van Gogh 101H

Project Number: 11667 Latitude: 32.23872 Longitude: -103.44071

Sample ID	PID/Odor	Chloride Conc.	GPS
V1 @ 1'		384	
V2 @ 1'		2324 L+L	
V3 @ 1'		5316 L+H	
V4 @ 1'		988 L+L	
WH1@1'		384	
WH2@1'		280	
NH1@1'		<124	
EH1@1'		312	
EH2a@ 0-6"		348	
EH2b@ 1'		<124	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Appendix C
Laboratory Analytical Reports

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Certificate of Analysis Summary 669287

COG Operating LLC, Artesia, NM

Project Name: Van Gogh Fed #101H

Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea

Date Received in Lab: Wed 08.05.2020 15:28

Report Date: 08.06.2020 13:40

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	669287-001		669287-002		669287-003		669287-004					
	Field Id:	SP-1		SP-2		SP-3		SP-4					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	08.04.2020 11:30		08.04.2020 11:35		08.04.2020 11:40		08.04.2020 11:45					
BTEX by EPA 8021B	***Extracted:***	08.05.2020 17:25		08.05.2020 17:25		08.05.2020 17:25		08.05.2020 17:25					
	Analyzed:	08.05.2020 22:00		08.05.2020 22:22		08.05.2020 22:45		08.05.2020 23:07					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
m,p-Xylenes		<0.00401	0.00401	<0.00404	0.00404	<0.00402	0.00402	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201				
Chloride by EPA 300	***Extracted:***	08.06.2020 08:30		08.06.2020 08:30		08.06.2020 08:30		08.06.2020 08:30					
	Analyzed:	08.06.2020 09:42		08.06.2020 09:47		08.06.2020 09:53		08.06.2020 10:09					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		358	50.1	101	9.94	646	9.98	101	49.4				
TPH By SW8015 Mod	***Extracted:***	08.05.2020 17:00		08.05.2020 17:00		08.05.2020 17:00		08.05.2020 17:00					
	Analyzed:	08.06.2020 00:11		08.06.2020 00:31		08.06.2020 00:52		08.06.2020 01:12					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		<50.0	50.0	<49.8	49.8	<50.1	50.1	<49.9	49.9				
Diesel Range Organics		<50.0	50.0	<49.8	49.8	171	50.1	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.8	49.8	<50.1	50.1	<49.9	49.9				
Total TPH		<50.0	50.0	<49.8	49.8	171	50.1	<49.9	49.9				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 669287

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Van Gogh Fed #101H

08.06.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

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08.06.2020

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **669287**
Van Gogh Fed #101H
Project Address: Lea

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669287. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669287 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	08.04.2020 11:30		669287-001
SP-2	S	08.04.2020 11:35		669287-002
SP-3	S	08.04.2020 11:40		669287-003
SP-4	S	08.04.2020 11:45		669287-004

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Van Gogh Fed #101H

Project ID:
Work Order Number(s): *669287*

Report Date: *08.06.2020*
Date Received: *08.05.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-1**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-001	Date Collected:	08.04.2020 11:30		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.06.2020 08:30	Basis:	Wet Weight
Seq Number:	3133753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**358**	50.1	mg/kg	08.06.2020 09:42		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.05.2020 17:00	Basis:	Wet Weight
Seq Number:	3133707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	08.06.2020 00:11	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	08.06.2020 00:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.06.2020 00:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.06.2020 00:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	08.06.2020 00:11	
o-Terphenyl	84-15-1	114	%	70-135	08.06.2020 00:11	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-1**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-001	Date Collected:	08.04.2020 11:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.05.2020 17:25	Basis:	Wet Weight
Seq Number:	3133716				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.05.2020 22:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.05.2020 22:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.05.2020 22:00	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.05.2020 22:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.05.2020 22:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.05.2020 22:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.05.2020 22:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.05.2020 22:00	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.05.2020 22:00	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-2**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-002	Date Collected:	08.04.2020 11:35		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.06.2020 08:30	Basis:	Wet Weight
Seq Number:	3133753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**101**	9.94	mg/kg	08.06.2020 09:47		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.05.2020 17:00	Basis:	Wet Weight
Seq Number:	3133707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	08.06.2020 00:31	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	08.06.2020 00:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.06.2020 00:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.06.2020 00:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.06.2020 00:31	
o-Terphenyl	84-15-1	111	%	70-135	08.06.2020 00:31	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-2**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-002	Date Collected:	08.04.2020 11:35		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.05.2020 17:25	Basis:	Wet Weight
Seq Number:	3133716				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.05.2020 22:22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.05.2020 22:22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.05.2020 22:22	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.05.2020 22:22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.05.2020 22:22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.05.2020 22:22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.05.2020 22:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.05.2020 22:22	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.05.2020 22:22	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-3**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-003	Date Collected:	08.04.2020 11:40		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.06.2020 08:30	Basis:	Wet Weight
Seq Number:	3133753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**646**	9.98	mg/kg	08.06.2020 09:53		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.05.2020 17:00	Basis:	Wet Weight
Seq Number:	3133707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	08.06.2020 00:52	U	1
Diesel Range Organics	C10C28DRO	**171**	50.1	mg/kg	08.06.2020 00:52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.06.2020 00:52	U	1
Total TPH	PHC635	**171**	50.1	mg/kg	08.06.2020 00:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.06.2020 00:52	
o-Terphenyl	84-15-1	107	%	70-135	08.06.2020 00:52	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-3**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-003	Date Collected:	08.04.2020 11:40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.05.2020 17:25	Basis:	Wet Weight
Seq Number:	3133716				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.05.2020 22:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.05.2020 22:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.05.2020 22:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.05.2020 22:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.05.2020 22:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.05.2020 22:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.05.2020 22:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.05.2020 22:45	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.05.2020 22:45	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-4**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-004	Date Collected:	08.04.2020 11:45		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.06.2020 08:30	Basis:	Wet Weight
Seq Number:	3133753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**101**	49.4	mg/kg	08.06.2020 10:09		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.05.2020 17:00	Basis:	Wet Weight
Seq Number:	3133707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	08.06.2020 01:12	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	08.06.2020 01:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.06.2020 01:12	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.06.2020 01:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.06.2020 01:12	
o-Terphenyl	84-15-1	108	%	70-135	08.06.2020 01:12	

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Certificate of Analytical Results 669287

COG Operating LLC, Artesia, NM

Van Gogh Fed #101H

Sample Id:	**SP-4**	Matrix:	Soil	Date Received:	08.05.2020 15:28
Lab Sample Id:	669287-004	Date Collected:	08.04.2020 11:45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.05.2020 17:25	Basis:	Wet Weight
Seq Number:	3133716				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.05.2020 23:07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.05.2020 23:07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.05.2020 23:07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.05.2020 23:07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.05.2020 23:07	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.05.2020 23:07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.05.2020 23:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.05.2020 23:07	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.05.2020 23:07	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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QC Summary 669287

COG Operating LLC

Van Gogh Fed #101H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133753 — Matrix: Solid — Date Prep: 08.06.2020
MB Sample Id: 7708823-1-BLK — LCS Sample Id: 7708823-1-BKS — LCSD Sample Id: 7708823-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	270	108	269	108	90-110	0	20	mg/kg	08.06.2020 09:08	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133753 — Matrix: Soil — Date Prep: 08.06.2020
Parent Sample Id: 669281-007 — MS Sample Id: 669281-007 S — MSD Sample Id: 669281-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	420	200	626	103	626	103	90-110	0	20	mg/kg	08.06.2020 09:25	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133753 — Matrix: Soil — Date Prep: 08.06.2020
Parent Sample Id: 669294-001 — MS Sample Id: 669294-001 S — MSD Sample Id: 669294-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4560	201	4750	95	4750	95	90-110	0	20	mg/kg	08.06.2020 10:32	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133707 — Matrix: Solid — Date Prep: 08.05.2020
MB Sample Id: 7708805-1-BLK — LCS Sample Id: 7708805-1-BKS — LCSD Sample Id: 7708805-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	1070	107	1060	106	70-135	1	35	mg/kg	08.05.2020 21:09	
Diesel Range Organics	<50.0	1000	1170	117	1150	115	70-135	2	35	mg/kg	08.05.2020 21:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		126		130		70-135	%	08.05.2020 21:09
o-Terphenyl	114		121		118		70-135	%	08.05.2020 21:09

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133707 — Matrix: Solid — Date Prep: 08.05.2020
MB Sample Id: 7708805-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.05.2020 20:49	

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

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

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

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QC Summary 669287

COG Operating LLC

Van Gogh Fed #101H

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3133707 Matrix: Soil Date Prep: 08.05.2020
Parent Sample Id: 669281-004 MS Sample Id: 669281-004 S MSD Sample Id: 669281-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	999	1070	107	994	99	70-135	7	35	mg/kg	08.05.2020 22:10	
Diesel Range Organics	<50.0	999	1160	116	1070	107	70-135	8	35	mg/kg	08.05.2020 22:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	08.05.2020 22:10
o-Terphenyl	124		117		70-135	%	08.05.2020 22:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3133716 Matrix: Solid Date Prep: 08.05.2020
MB Sample Id: 7708826-1-BLK LCS Sample Id: 7708826-1-BKS LCSD Sample Id: 7708826-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.109	109	70-130	2	35	mg/kg	08.05.2020 19:57	
Toluene	<0.00200	0.100	0.101	101	0.104	104	70-130	3	35	mg/kg	08.05.2020 19:57	
Ethylbenzene	<0.00200	0.100	0.0948	95	0.0970	97	71-129	2	35	mg/kg	08.05.2020 19:57	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.197	99	70-135	2	35	mg/kg	08.05.2020 19:57	
o-Xylene	<0.00200	0.100	0.0949	95	0.0975	98	71-133	3	35	mg/kg	08.05.2020 19:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		99		70-130	%	08.05.2020 19:57
4-Bromofluorobenzene	96		102		103		70-130	%	08.05.2020 19:57

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3133716 Matrix: Soil Date Prep: 08.05.2020
Parent Sample Id: 669287-001 MS Sample Id: 669287-001 S MSD Sample Id: 669287-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.126	126	0.121	121	70-130	4	35	mg/kg	08.05.2020 20:42	
Toluene	<0.00201	0.100	0.124	124	0.113	113	70-130	9	35	mg/kg	08.05.2020 20:42	
Ethylbenzene	<0.00201	0.100	0.115	115	0.104	104	71-129	10	35	mg/kg	08.05.2020 20:42	
m,p-Xylenes	<0.00402	0.201	0.231	115	0.208	104	70-135	10	35	mg/kg	08.05.2020 20:42	
o-Xylene	<0.00201	0.100	0.113	113	0.102	102	71-133	10	35	mg/kg	08.05.2020 20:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	08.05.2020 20:42
4-Bromofluorobenzene	102		98		70-130	%	08.05.2020 20:42

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

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

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

Cele9287

Analysis Request of Chain of Custody Record

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

Client Name: COG-Artesia	**Site Manager:** Sheldon Hitchcock
Project Name: Van Dorn Fed #101H	
Project Location: (county, state) Lea	**Project #:**
Invoice to: Sheldon Hitchcock	
Receiving Laboratory: Xenco	**Sampler Name:** Sheldon Hitchcock
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	SP-1	8/4/20	11:30		X			X	1	G	X	X	X	
	SP-2		11:35		X			X	1	G	X	X	X	
	SP-3		11:40		X			X	1	G	X	X	X	
	SP-4		11:45		X			X	1	G	X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	8/5/20	15:28	[signature]	8/5/20	1528
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature 1.2/1.0

REMARKS: Standard

- ☐ RUSH: Same Day 24 hr 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 08.05.2020 03.28.00 PM

Work Order #: 669287

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 08.05.2020

Checklist reviewed by: Jessica Kramer Date: 08.06.2020

Jessica Kramer

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Certificate of Analysis Summary 672165

COG Operating LLC, Artesia, NM

Project Name: Van Gogh Fee #101

Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea County, New Mexico

Date Received in Lab: Wed 09.09.2020 15:07

Report Date: 09.10.2020 10:41

Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	672165-001						
	Field Id:	SW-1						
	Depth:							
	Matrix:	SOIL						
	Sampled:	09.09.2020 10:20						
BTEX by EPA 8021B	***Extracted:***	09.09.2020 16:16						
	Analyzed:	09.09.2020 18:51						
	Units/RL:	mg/kg	RL					
Benzene		<0.00201	0.00201					
Toluene		<0.00201	0.00201					
Ethylbenzene		<0.00201	0.00201					
m,p-Xylenes		<0.00402	0.00402					
o-Xylene		<0.00201	0.00201					
Total Xylenes		<0.00201	0.00201					
Total BTEX		<0.00201	0.00201					
Chloride by EPA 300	***Extracted:***	09.09.2020 15:36						
	Analyzed:	09.09.2020 17:21						
	Units/RL:	mg/kg	RL					
Chloride		441	9.96					
TPH By SW8015 Mod	***Extracted:***	09.09.2020 17:20						
	Analyzed:	09.09.2020 18:38						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons		<50.3	50.3					
Diesel Range Organics		<50.3	50.3					
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3					
Total TPH		<50.3	50.3					

BRL - Below Reporting Limit

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

Jessica Kramer

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Analytical Report 672165

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Van Gogh Fee #101

09.10.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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

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09.10.2020

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **672165**
Van Gogh Fee #101
Project Address: Lea County, New Mexico

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672165. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672165 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 672165

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW-1	S	09.09.2020 10:20		672165-001

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Van Gogh Fee #101

Project ID:
Work Order Number(s): *672165*

Report Date: *09.10.2020*
Date Received: *09.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 672165

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672165-001	Date Collected:	09.09.2020 10:20		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**441**	9.96	mg/kg	09.09.2020 17:21		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.3	50.3	mg/kg	09.09.2020 18:38	U	1
Diesel Range Organics	C10C28DRO	<50.3	50.3	mg/kg	09.09.2020 18:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.09.2020 18:38	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.09.2020 18:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	09.09.2020 18:38	
o-Terphenyl	84-15-1	112	%	70-135	09.09.2020 18:38	

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Certificate of Analytical Results 672165

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672165-001	Date Collected:	09.09.2020 10:20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.09.2020 18:51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.09.2020 18:51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.09.2020 18:51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.09.2020 18:51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.09.2020 18:51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.09.2020 18:51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.09.2020 18:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.09.2020 18:51	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.09.2020 18:51	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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QC Summary 672165

COG Operating LLC

Van Gogh Fee #101

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3136730 — Matrix: Solid — Date Prep: 09.09.2020
MB Sample Id: 7711008-1-BLK — LCS Sample Id: 7711008-1-BKS — LCSD Sample Id: 7711008-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	252	101	90-110	0	20	mg/kg	09.09.2020 14:28	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3136730 — Matrix: Soil — Date Prep: 09.09.2020
Parent Sample Id: 672074-001 — MS Sample Id: 672074-001 S — MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	72.0	200	275	102	276	101	90-110	0	20	mg/kg	09.09.2020 14:44	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3136730 — Matrix: Soil — Date Prep: 09.09.2020
Parent Sample Id: 672167-003 — MS Sample Id: 672167-003 S — MSD Sample Id: 672167-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	158	200	362	102	362	102	90-110	0	20	mg/kg	09.09.2020 17:46	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3136684 — Matrix: Solid — Date Prep: 09.09.2020
MB Sample Id: 7711004-1-BLK — LCS Sample Id: 7711004-1-BKS — LCSD Sample Id: 7711004-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	898	90	860	86	70-135	4	35	mg/kg	09.09.2020 10:12	
Diesel Range Organics	<50.0	1000	1010	101	973	97	70-135	4	35	mg/kg	09.09.2020 10:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		122		115		70-135	%	09.09.2020 10:12
o-Terphenyl	101		117		112		70-135	%	09.09.2020 10:12

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3136684 — Matrix: Solid — Date Prep: 09.09.2020
MB Sample Id: 7711004-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.09.2020 09:51	

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

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

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

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QC Summary 672165

COG Operating LLC

Van Gogh Fee #101

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3136684 Matrix: Soil Date Prep: 09.09.2020
Parent Sample Id: 672074-001 MS Sample Id: 672074-001 S MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.1	1000	899	90	897	90	70-135	0	35	mg/kg	09.09.2020 12:11	
Diesel Range Organics	<50.1	1000	1030	103	997	100	70-135	3	35	mg/kg	09.09.2020 12:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		127		70-135	%	09.09.2020 12:11
o-Terphenyl	127		133		70-135	%	09.09.2020 12:11

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3136727 Matrix: Solid Date Prep: 09.09.2020
MB Sample Id: 7711007-1-BLK LCS Sample Id: 7711007-1-BKS LCSD Sample Id: 7711007-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0965	97	0.0997	100	70-130	3	35	mg/kg	09.09.2020 14:34	
Toluene	<0.00200	0.100	0.0953	95	0.0983	98	70-130	3	35	mg/kg	09.09.2020 14:34	
Ethylbenzene	<0.00200	0.100	0.0900	90	0.0926	93	71-129	3	35	mg/kg	09.09.2020 14:34	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.186	93	70-135	3	35	mg/kg	09.09.2020 14:34	
o-Xylene	<0.00200	0.100	0.0901	90	0.0924	92	71-133	3	35	mg/kg	09.09.2020 14:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		99		70-130	%	09.09.2020 14:34
4-Bromofluorobenzene	88		89		87		70-130	%	09.09.2020 14:34

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3136727 Matrix: Soil Date Prep: 09.09.2020
Parent Sample Id: 672074-001 MS Sample Id: 672074-001 S MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.123	123	0.114	115	70-130	8	35	mg/kg	09.09.2020 15:19	
Toluene	<0.00200	0.0998	0.121	121	0.112	113	70-130	8	35	mg/kg	09.09.2020 15:19	
Ethylbenzene	<0.00200	0.0998	0.114	114	0.105	106	71-129	8	35	mg/kg	09.09.2020 15:19	
m,p-Xylenes	<0.00399	0.200	0.229	115	0.211	106	70-135	8	35	mg/kg	09.09.2020 15:19	
o-Xylene	<0.00200	0.0998	0.112	112	0.103	104	71-133	8	35	mg/kg	09.09.2020 15:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.09.2020 15:19
4-Bromofluorobenzene	89		90		70-130	%	09.09.2020 15:19

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

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

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

Analysis Request of Chain of Custody Record

Page 1 of 1

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas Tel (432) 683-7443

672165

Client Name: COG-Artesia

Site Manager: Sheldon Hitchcock

Project Name: Van Goon Fee #101

Project Location: (county, state) Lea, NM

Project #:

Invoice to: Sheldon Hitchcock

Receiving Laboratory: Xenco

Sampler Name: Sheldon Hitchcock

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	SW-1	9/9	10:20		X			X	1	C	X	X	X	

ANALYSIS REQUEST (Circle or Specify Method No.)

Relinquished by: Date: 9.9.20 Time: 15:07

Received by: Cloe Cuffley Date: 9.9.20 Time: 15:07

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 0.4/0.2

REMARKS:

☒ RUSH: Same Day (24 hr) 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 09.09.2020 03.07.00 PM

Work Order #: 672165

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 09.09.2020

Checklist reviewed by: Jessica Kramer Date: 09.10.2020

Jessica Kramer

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Certificate of Analysis Summary 672167

COG Operating LLC, Artesia, NM

Project Name: Van Gogh Fee #101

Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea County, New Mexico

Date Received in Lab: Wed 09.09.2020 15:07

Report Date: 09.10.2020 10:42

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	672167-001		672167-002		672167-003		672167-004		672167-005		672167-006	
	Field Id:	B-1		B-2		B-3		B-4		B-5		B-6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	09.09.2020 10:00		09.09.2020 10:02		09.09.2020 10:04		09.09.2020 10:06		09.09.2020 10:08		09.09.2020 10:10	
BTEX by EPA 8021B	***Extracted:***	09.09.2020 16:16		09.09.2020 16:16		09.09.2020 16:16		09.09.2020 16:16		09.09.2020 16:16		09.09.2020 16:16	
	Analyzed:	09.09.2020 19:13		09.09.2020 19:36		09.09.2020 19:58		09.09.2020 21:16		09.09.2020 21:38		09.09.2020 22:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00403	0.00403	<0.00399	0.00399	<0.00398	0.00398	<0.00403	0.00403	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	09.09.2020 15:36		09.09.2020 15:36		09.09.2020 15:36		09.09.2020 15:36		09.09.2020 15:36		09.09.2020 15:36	
	Analyzed:	09.09.2020 17:29		09.09.2020 17:34		09.09.2020 17:40		09.09.2020 17:57		09.09.2020 18:03		09.09.2020 18:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		73.4	9.98	84.9	9.98	158	9.94	1150	101	165	9.94	230	9.94
TPH By SW8015 Mod	***Extracted:***	09.09.2020 17:20		09.09.2020 17:20		09.09.2020 17:20		09.09.2020 17:20		09.09.2020 17:20		09.09.2020 17:20	
	Analyzed:	09.09.2020 18:58		09.09.2020 19:18		09.09.2020 19:38		09.09.2020 19:58		09.09.2020 20:18		09.09.2020 20:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.0	50.0
Diesel Range Organics		<49.9	49.9	<50.0	50.0	<50.2	50.2	62.2	50.2	<50.0	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.0	50.0
Total TPH		<49.9	49.9	<50.0	50.0	<50.2	50.2	62.2	50.2	<50.0	50.0	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

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

Final 1.000

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Analytical Report 672167

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Van Gogh Fee #101

09.10.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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

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09.10.2020

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **672167**
Van Gogh Fee #101
Project Address: Lea County, New Mexico

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672167. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672167 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 672167

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
B-1	S	09.09.2020 10:00		672167-001
B-2	S	09.09.2020 10:02		672167-002
B-3	S	09.09.2020 10:04		672167-003
B-4	S	09.09.2020 10:06		672167-004
B-5	S	09.09.2020 10:08		672167-005
B-6	S	09.09.2020 10:10		672167-006

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Van Gogh Fee #101

Project ID:
Work Order Number(s): *672167*

Report Date: *09.10.2020*
Date Received: *09.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 672167

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-1**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-001	Date Collected:	09.09.2020 10:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**73.4**	9.98	mg/kg	09.09.2020 17:29		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	09.09.2020 18:58	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	09.09.2020 18:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.09.2020 18:58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.09.2020 18:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.09.2020 18:58	
o-Terphenyl	84-15-1	122	%	70-135	09.09.2020 18:58	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-1**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-001	Date Collected:	09.09.2020 10:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.09.2020 19:13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.09.2020 19:13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.09.2020 19:13	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.09.2020 19:13	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.09.2020 19:13	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.09.2020 19:13	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.09.2020 19:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.09.2020 19:13	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.09.2020 19:13	

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Certificate of Analytical Results 672167

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-2**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-002	Date Collected:	09.09.2020 10:02		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**84.9**	9.98	mg/kg	09.09.2020 17:34		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	09.09.2020 19:18	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	09.09.2020 19:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.09.2020 19:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.09.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.09.2020 19:18	
o-Terphenyl	84-15-1	114	%	70-135	09.09.2020 19:18	

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Certificate of Analytical Results 672167

COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-2**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-002	Date Collected:	09.09.2020 10:02		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.09.2020 19:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.09.2020 19:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.09.2020 19:36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.09.2020 19:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.09.2020 19:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.09.2020 19:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.09.2020 19:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.09.2020 19:36	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.09.2020 19:36	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-3**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-003	Date Collected:	09.09.2020 10:04		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**158**	9.94	mg/kg	09.09.2020 17:40		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	09.09.2020 19:38	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	09.09.2020 19:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.09.2020 19:38	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.09.2020 19:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	09.09.2020 19:38	
o-Terphenyl	84-15-1	116	%	70-135	09.09.2020 19:38	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-3**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-003	Date Collected:	09.09.2020 10:04		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.09.2020 19:58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.09.2020 19:58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.09.2020 19:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.09.2020 19:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.09.2020 19:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.09.2020 19:58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.09.2020 19:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.09.2020 19:58	
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.09.2020 19:58	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-4**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-004	Date Collected:	09.09.2020 10:06		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1150**	101	mg/kg	09.09.2020 17:57		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	09.09.2020 19:58	U	1
Diesel Range Organics	C10C28DRO	**62.2**	50.2	mg/kg	09.09.2020 19:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.09.2020 19:58	U	1
Total TPH	PHC635	**62.2**	50.2	mg/kg	09.09.2020 19:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.09.2020 19:58	
o-Terphenyl	84-15-1	115	%	70-135	09.09.2020 19:58	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-4**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-004	Date Collected:	09.09.2020 10:06		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.09.2020 21:16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.09.2020 21:16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.09.2020 21:16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.09.2020 21:16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.09.2020 21:16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.09.2020 21:16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.09.2020 21:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.09.2020 21:16	
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.09.2020 21:16	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-5**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-005	Date Collected:	09.09.2020 10:08		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**165**	9.94	mg/kg	09.09.2020 18:03		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	09.09.2020 20:18	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	09.09.2020 20:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.09.2020 20:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.09.2020 20:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	09.09.2020 20:18	
o-Terphenyl	84-15-1	121	%	70-135	09.09.2020 20:18	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-5**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-005	Date Collected:	09.09.2020 10:08		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.09.2020 21:38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.09.2020 21:38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.09.2020 21:38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.09.2020 21:38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.09.2020 21:38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.09.2020 21:38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.09.2020 21:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.09.2020 21:38	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.09.2020 21:38	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-6**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-006	Date Collected:	09.09.2020 10:10		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 15:36	Basis:	Wet Weight
Seq Number:	3136730				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**230**	9.94	mg/kg	09.09.2020 18:20		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	09.09.2020 17:20	Basis:	Wet Weight
Seq Number:	3136684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	09.09.2020 20:39	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	09.09.2020 20:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.09.2020 20:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.09.2020 20:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	09.09.2020 20:39	
o-Terphenyl	84-15-1	121	%	70-135	09.09.2020 20:39	

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COG Operating LLC, Artesia, NM

Van Gogh Fee #101

Sample Id:	**B-6**	Matrix:	Soil	Date Received:	09.09.2020 15:07
Lab Sample Id:	672167-006	Date Collected:	09.09.2020 10:10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	09.09.2020 16:16	Basis:	Wet Weight
Seq Number:	3136727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.09.2020 22:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.09.2020 22:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.09.2020 22:01	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.09.2020 22:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.09.2020 22:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.09.2020 22:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.09.2020 22:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.09.2020 22:01	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.09.2020 22:01	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

eurofins | Environment Testing Xenco

QC Summary 672167

COG Operating LLC

Van Gogh Fee #101

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3136730 — Matrix: Solid — Date Prep: 09.09.2020
MB Sample Id: 7711008-1-BLK — LCS Sample Id: 7711008-1-BKS — LCSD Sample Id: 7711008-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	252	101	90-110	0	20	mg/kg	09.09.2020 14:28	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3136730 — Matrix: Soil — Date Prep: 09.09.2020
Parent Sample Id: 672074-001 — MS Sample Id: 672074-001 S — MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	72.0	200	275	102	276	101	90-110	0	20	mg/kg	09.09.2020 14:44	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3136730 — Matrix: Soil — Date Prep: 09.09.2020
Parent Sample Id: 672167-003 — MS Sample Id: 672167-003 S — MSD Sample Id: 672167-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	158	200	362	102	362	102	90-110	0	20	mg/kg	09.09.2020 17:46	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3136684 — Matrix: Solid — Date Prep: 09.09.2020
MB Sample Id: 7711004-1-BLK — LCS Sample Id: 7711004-1-BKS — LCSD Sample Id: 7711004-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	898	90	860	86	70-135	4	35	mg/kg	09.09.2020 10:12	
Diesel Range Organics	<50.0	1000	1010	101	973	97	70-135	4	35	mg/kg	09.09.2020 10:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		122		115		70-135	%	09.09.2020 10:12
o-Terphenyl	101		117		112		70-135	%	09.09.2020 10:12

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3136684 — Matrix: Solid — Date Prep: 09.09.2020
MB Sample Id: 7711004-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.09.2020 09:51	

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

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

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

eurofins | Environment Testing Xenco

QC Summary 672167

COG Operating LLC

Van Gogh Fee #101

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3136684 Matrix: Soil Date Prep: 09.09.2020
Parent Sample Id: 672074-001 MS Sample Id: 672074-001 S MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.1	1000	899	90	897	90	70-135	0	35	mg/kg	09.09.2020 12:11	
Diesel Range Organics	<50.1	1000	1030	103	997	100	70-135	3	35	mg/kg	09.09.2020 12:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		127		70-135	%	09.09.2020 12:11
o-Terphenyl	127		133		70-135	%	09.09.2020 12:11

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3136727 Matrix: Solid Date Prep: 09.09.2020
MB Sample Id: 7711007-1-BLK LCS Sample Id: 7711007-1-BKS LCSD Sample Id: 7711007-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0965	97	0.0997	100	70-130	3	35	mg/kg	09.09.2020 14:34	
Toluene	<0.00200	0.100	0.0953	95	0.0983	98	70-130	3	35	mg/kg	09.09.2020 14:34	
Ethylbenzene	<0.00200	0.100	0.0900	90	0.0926	93	71-129	3	35	mg/kg	09.09.2020 14:34	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.186	93	70-135	3	35	mg/kg	09.09.2020 14:34	
o-Xylene	<0.00200	0.100	0.0901	90	0.0924	92	71-133	3	35	mg/kg	09.09.2020 14:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		99		70-130	%	09.09.2020 14:34
4-Bromofluorobenzene	88		89		87		70-130	%	09.09.2020 14:34

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3136727 Matrix: Soil Date Prep: 09.09.2020
Parent Sample Id: 672074-001 MS Sample Id: 672074-001 S MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.123	123	0.114	115	70-130	8	35	mg/kg	09.09.2020 15:19	
Toluene	<0.00200	0.0998	0.121	121	0.112	113	70-130	8	35	mg/kg	09.09.2020 15:19	
Ethylbenzene	<0.00200	0.0998	0.114	114	0.105	106	71-129	8	35	mg/kg	09.09.2020 15:19	
m,p-Xylenes	<0.00399	0.200	0.229	115	0.211	106	70-135	8	35	mg/kg	09.09.2020 15:19	
o-Xylene	<0.00200	0.0998	0.112	112	0.103	104	71-133	8	35	mg/kg	09.09.2020 15:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.09.2020 15:19
4-Bromofluorobenzene	89		90		70-130	%	09.09.2020 15:19

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

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

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

Analysis Request of Chain of Custody Record

CONCHO

One Concho Center/600/Illinois
Avenue/Midland, Texas
Tel (432) 683-7443

672167

Client Name: COG-Artesia	Site Manager: Sheldon Hitchcock
Project Name: Van Gogh Fee #101	
Project Location: (county, state) Lea, NM	Project #:
Invoice to: Sheldon Hitchcock	
Receiving Laboratory: Xenco	Sampler Name: Sheldon Hitchcock
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	TIME	MATRIX: WATER	SOIL	PRESERVATIVE METHOD: HCL	HNO_3	ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	B-1	9/9	10:00		X			X	1	C	X	X	X	
	B-2		10:02											
	B-3		10:04											
	B-4		10:06											
	B-5		10:08											
	B-6		10:10											

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	9.9.20	15:07	[signature]	9.9.20	15:07
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature
0.4/0.2

REMARKS:

- [X] RUSH: Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 09.09.2020 03.07.00 PM

Work Order #: 672167

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 09.09.2020

Checklist reviewed by: Jessica Kramer Date: 09.10.2020

Jessica Kramer

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 10, 2020

LANCE CRENSHAW

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: VAN GOGH 101H

Enclosed are the results of analyses for samples received by the laboratory on 09/10/20 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Etech Environmental & Safety Solutions
LANCE CRENSHAW
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	09/10/2020	Sampling Date:	09/10/2020
Reported:	09/10/2020	Sampling Type:	Soil
Project Name:	VAN GOGH 101H	Sampling Condition:	** (See Notes)
Project Number:	VAN GOGH 101	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO - LEA CO NM		

Sample ID: B4 (H002406-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	09/10/2020	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	ANALYSIS REQUEST
Company Name:	COG	P.O. #:	
Project Manager:	Sheldon Hitchcock	Company:	COG
Address:		Attn:	Sheldon Hitchcock
City:	State: Zip:	Address:	
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State: Zip:	
Project Name:	Van Gogh 101	Phone #:	
Project Location:		Fax #:	
Sampler Name:	David Robinson		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cl
H003406 1	B4	G	1			X							9-10-20		X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 9-10-20	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1435	Tamara Oldaker	All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS: pm@etechenv.com
	Time:		

Delivered By: (Circle One)	Observed Temp. °C 21.3	Sample Condition	CHECKED BY:	Turnaround Time: Standard ☐ Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact ☐ Yes ☑ Yes ☑ No ☐ No	(Initials) TO	Rush ☑ Cool Intact Observed Temp. °C ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C
				Thermometer ID #113 Correction Factor None

FORM-006 R 3.1 06/04/20

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

March 16, 2021

JOEL LOWRY

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: VAN GOGH 101H

Enclosed are the results of analyses for samples received by the laboratory on 03/15/21 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Etech Environmental & Safety Solutions
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	03/15/2021	Sampling Date:	03/15/2021
Reported:	03/16/2021	Sampling Type:	Soil
Project Name:	VAN GOGH 101H	Sampling Condition:	** (See Notes)
Project Number:	11667	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO - LEA CO NM		

Sample ID: FL 1 @ 3' (H210652-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	03/16/2021	ND	400	100	400	0.00	

Sample ID: NW (H210652-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	03/16/2021	ND	400	100	400	0.00	

Sample ID: SW (H210652-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	03/16/2021	ND	400	100	400	0.00	

Sample ID: WW (H210652-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	03/16/2021	ND	400	100	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Etech Environmental & Safety Solutions
JOEL LOWRY
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	03/15/2021	Sampling Date:	03/15/2021
Reported:	03/16/2021	Sampling Type:	Soil
Project Name:	VAN GOGH 101H	Sampling Condition:	** (See Notes)
Project Number:	11667	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO - LEA CO NM		

Sample ID: EW (H210652-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	03/16/2021	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name: Etech Environmental & Safety Solutions, Inc.		P.O. #:	
Project Manager: Joel Lowry		Company: COG	
Address: P.O. Box 301		Attn:	
City: Lovington	State: NM Zip: 88260	Address:	
Phone #: (575) 396-2378	Fax #: (575) 396-1429	City:	
Project #: 11667	Project Owner: COG	State:	Zip:
Project Name: Van Gogh 10H		Phone #:	
Project Location: Van Gogh 10H		Fax #:	
Sampler Name: Leonel Mojica			

ANALYSIS REQUEST

Lab I.D. (FOR LAB USE ONLY)	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H210652																	
1	FL 1 @ 3'	C	1			x					x		3/15/21		X		
2	NW	C	1			x					x		3/15/21		X		
3	SW	C	1			x					x		3/15/21		X		
4	WW	C	1			x					x		3/15/21		X		
5	EW	C	1			x					x		3/15/21		X		

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Leonel Mojica	Date: 3/15/21 Time: 4:30	Received By: Tamara [signature]	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS: RUSH

Please email results to pm@etechenv.com.

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 17.9°c #113

Sample Condition: Cool ☐ Yes ☑ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) TO

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

FORM-006
Revision 1.0

Appendix D
Photographic Log

Photographic Log

Photo Number: 1 **Photo Direction:** Southeast **Photo Description:** View of portion of the excavated area.	

Photo Number: 2 **Photo Direction:** East **Photo Description:** View of portion of the excavated area.	

Photographic Log

Photo Number: 3 **Photo Direction:** Southeast **Photo Description:** View of portion of the excavated area.	

Photo Number: 4 **Photo Direction:** North **Photo Description:** View of affected area after additional excavation activities.	

Photographic Log

Photo Number: 5	
Photo Direction: South	
Photo Description: View of affected area after additional excavation activities.	

Photo Number: 6	
Photo Direction: East	
Photo Description: View of affected area after remediation activities.	

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

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

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	229137
	Action Number: 21831
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	None	7/19/2021