TETRA TECH

July 5, 2023

District Supervisor
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Release Characterization, Remediation and Closure Report
ConocoPhillips
Van Gogh Fee 101H Release
Unit Letter B, Section 11, Township 24 South, Range 34 East
DOR: 5/11/2023
Lea County, New Mexico
Incident ID: NAPP2314253030

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a release caused by an oil dump malfunction resulting in a flare fire on pad at the Van Gogh Fee 101H (API # 30-025-45255) wellhead. The release footprint is located within Public Land Survey System (PLSS) Unit Letter B, Section 11, Township 24 South, Range 34 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.2389°, -103.4404°, as shown on Figures 1 and 2.

BACKGROUND

According to the C-141 Initial Report, the release occurred on May 11, 2023, and was caused by an oil dump malfunction resulting in a flare fire on pad. Approximately 0.20 barrels (bbls) of oil were released, and no fluid was recovered due to the fire burning off any standing fluid. The provided spill calculator indicates a release area of approximately 950 square feet on the production pad. This release extent was identified based on information provided by ConocoPhillips representatives and a review of photographs taken at the release area. The approximate release extent is shown in Figure 3. The New Mexico Oil Conservation Division (NMOCD) approved the initial C-141 on May 23, 2023 and assigned the release Incident ID NAPP2314253030. The C-141 is included as Appendix A.

LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the site is located on Private land. Prior to assessment and remedial activities, the appropriate parties were contacted and informed of the work and remedial work was coordinated with the landowner.

SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15. 29 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential. A New Mexico Office of the State Engineer (NMOSE)-identified stream is located approximately 960 feet south of the release site.

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

According to the United States Geological Survey (USGS) groundwater well search through the New Mexico Oil Conservation Division (NMOCD) mapping system, there is one active water well (USGS 321357103265201) within a ½-mile (800-meter) radius of the Site, approximately 0.40 miles (640.7 meters) west of the release point with a depth to water at 43.91 feet below ground surface (bgs). The site characterization data is included in Appendix B.

REGULATORY FRAMEWORK

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

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

Constituent	Site RRALs
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

INITIAL RESPONSE AND REMEDIAL ACTIVITIES

In accordance with 19.15.29.8. B. (4) NMAC that states “the responsible party may commence remediation immediately after discovery of a release,” ConocoPhillips elected to begin remediation of the impacted area on May 19, 2023. The on-pad material was excavated by scraping the surface to a depth of 1 to 3 inches bgs, resulting in approximately 5 cubic yards of contaminated soil being removed and sent to R360 Halfway Facility in Hobbs, New Mexico. Following the remedial activities, the area was backfilled and compacted with clean caliche material. Photographic documentation of the release extent before and after the scrape is included in Appendix C. Waste manifests can be found in Appendix D and the initial response area is indicated in Figure 3.

SITE ASSESSMENT AND CONFIRMATION SAMPLING RESULTS

Tetra Tech personnel mobilized to the site on June 7, 2023, to collect confirmation samples, following the remedial activities completed by ConocoPhillips. A total of six (6) borings (AH-1 through AH-6) were installed in the boundaries of the scraped area and within the release footprint. Two (2) borings (AH-1 and AH-2) were installed to a depth of 2 feet bgs within the release area footprint to achieve vertical delineation and are representative of floor samples. Four (4) borings (AH-3 through AH-6) were installed to a depth of 1-foot bgs outside the release area footprint to achieve horizontal delineation and are representative of sidewall samples. Soil samples collected were field screened for salinity parts per million (ppm) using an ExStik II EC 400 meter. The approximate release extent and boring locations are shown in Figure 4.

A total of eight (8) samples were collected from the six (6) boring locations and submitted to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico to be analyzed for chlorides via EPA Method 4500.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E. Photographic documentation of Site conditions at the time of the assessment is presented in Appendix C.

SITE ASSESSMENT AND CONFIRMATION SAMPLING RESULTS

Analytical results from the 2023 sampling activities are summarized in Table 1. After review of the analytical results from the sampling event, both horizontal and vertical delineation was achieved following the June 2023 soil sampling activities. All analytical results were below the Site RRALs for all constituents. The boring locations are indicated in Figure 4. The initial response remedial action was successful in removing the contaminant mass to meet the standards of Table I of 19.15.29.12 NMAC.

The release extent consisted of approximately 950 sf. Samples were collected such that each discrete sample (horizontal and vertical) was representative of approximately 200 square feet of remediated area. A total of four (4) samples were collected and analyzed from the release interior (vertical), and four (4) additional samples from the release perimeter (horizontal) were collected and analyzed during the sampling activities. Samples were collected from the surface and subsurface, to be representative of the remediated surface and not clean backfill.

CONCLUSION

Based on the results of the site assessment and confirmation sampling, ConocoPhillips respectfully requests closure of the incident. The current release footprint is fully delineated. All analytical results associated with the site sampling event were below applicable Site RRALs following the initial response actions; therefore, remediation of the on-pad release footprint is complete. The impacted surface area was remediated to meet the standards of Table I of 19.15.29.12 NMAC during the initial response remedial activities.

This final closure report has been submitted within 90 days of discovery of the release. This final closure report details the release characterization, remediation activities and the results of the assessment sampling. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the soil assessment activities for the Site, please call me at (512) 739-7874.

Sincerely,

Tetra Tech, Inc.

Samantha Abbott, P.G.
Project Manager

Christian M. Llull, P.G.
Program Manager

cc:
Mr. Jacob Laird, GPBU – ConocoPhillips

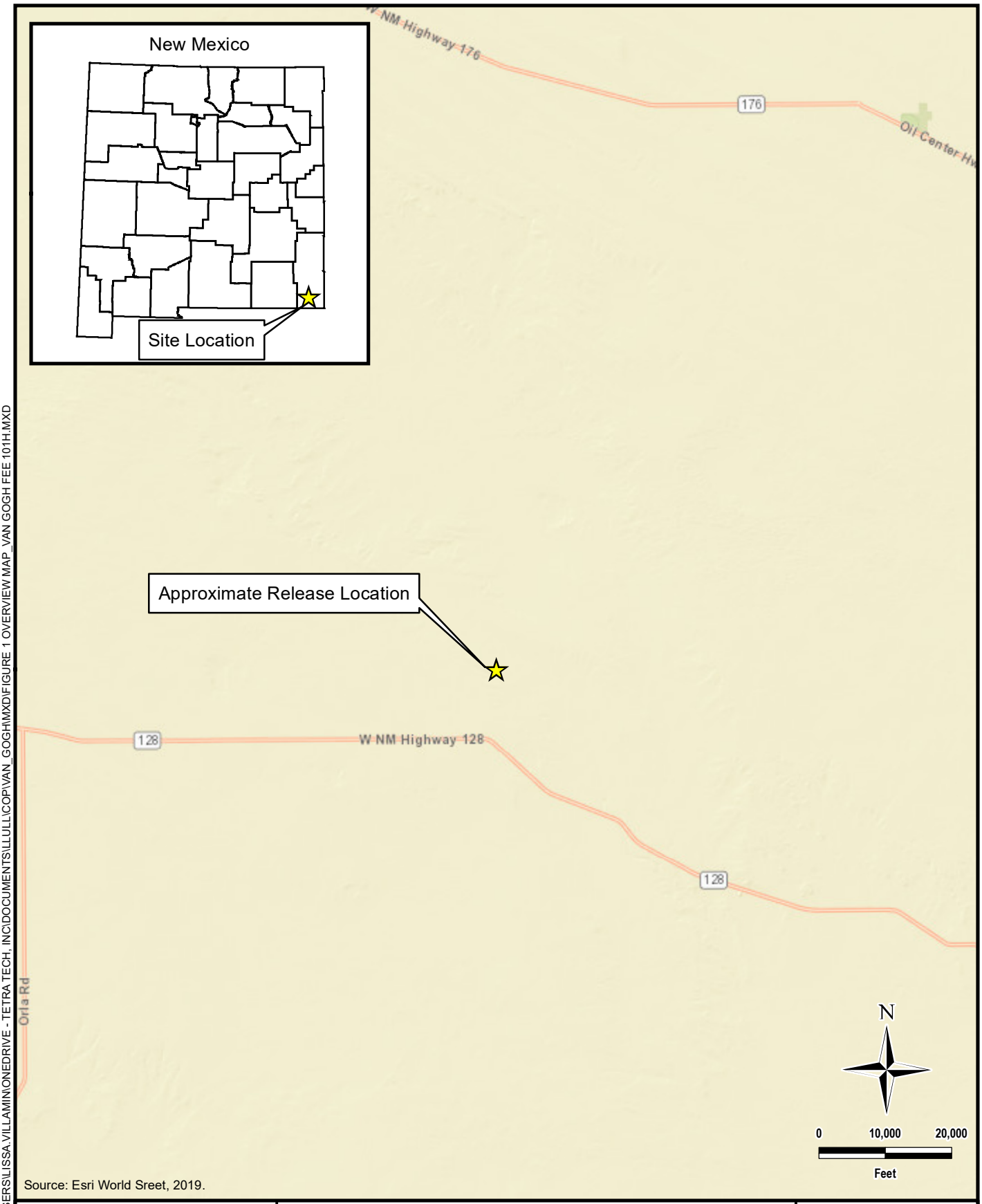
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



Source: Esri World Sreet, 2019.

DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\VAN_GOGH\MXD\FIGURE 1 OVERVIEW MAP_VAN GOGH FEE 101H.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

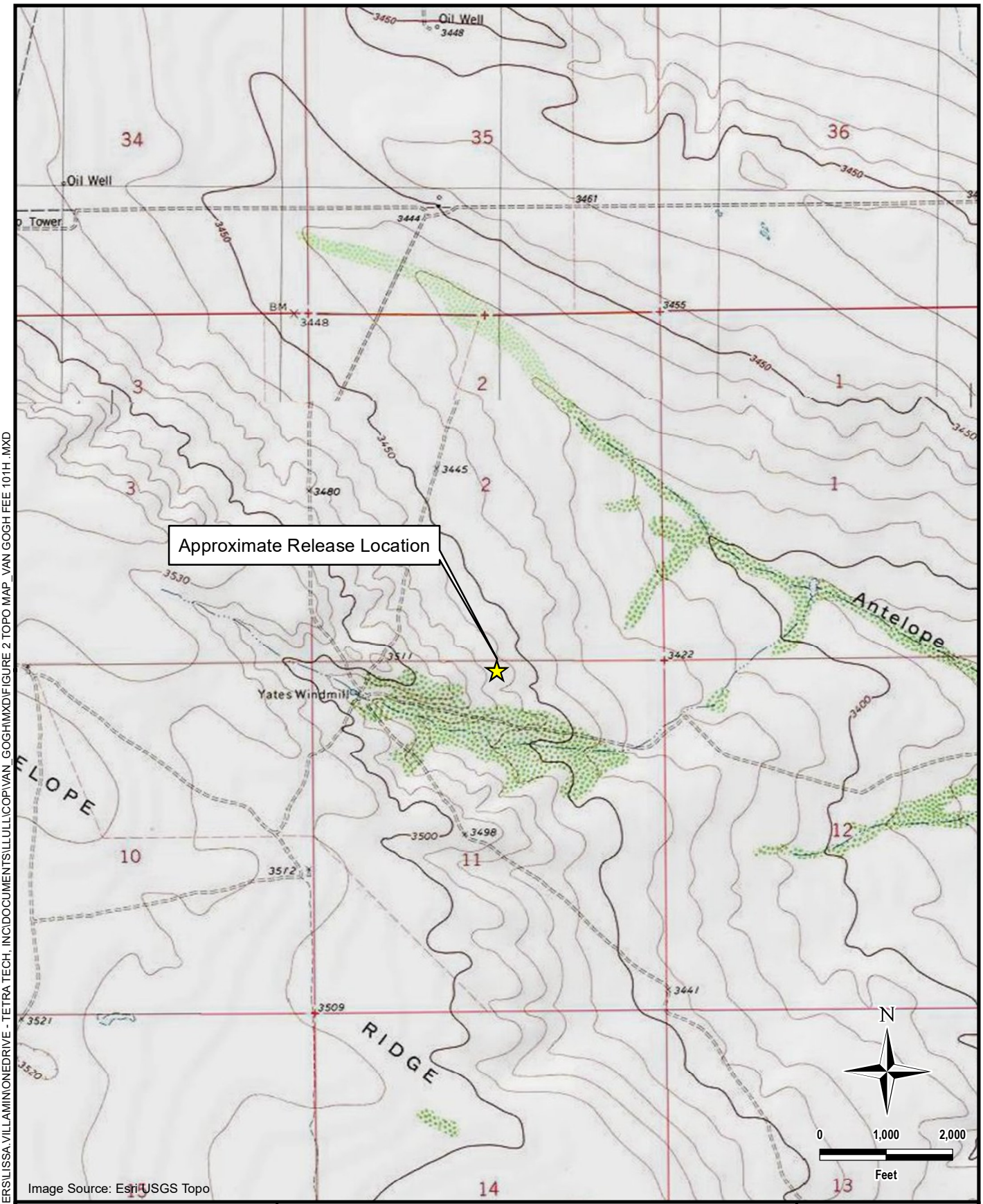
CONOCOPHILLIPS

NAPP2314253030
LEA COUNTY, NEW MEXICO
(32.238860° -103.440242°)
DOR: 5/11/2023

VAN GOGH FEE 101H FLARE RELEASE
OVERVIEW MAP

PROJECT NO.:	212C-MD-03137
DATE:	JUNE 08, 2023
DESIGNED BY:	LMV

Figure No.
1



DOCUMENT PATH: C:\USERS\LISSA.VILLAMINONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\VAN_GOGH\MXD\FIGURE 2 TOPO MAP_VAN GOGH FEE 101H .MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

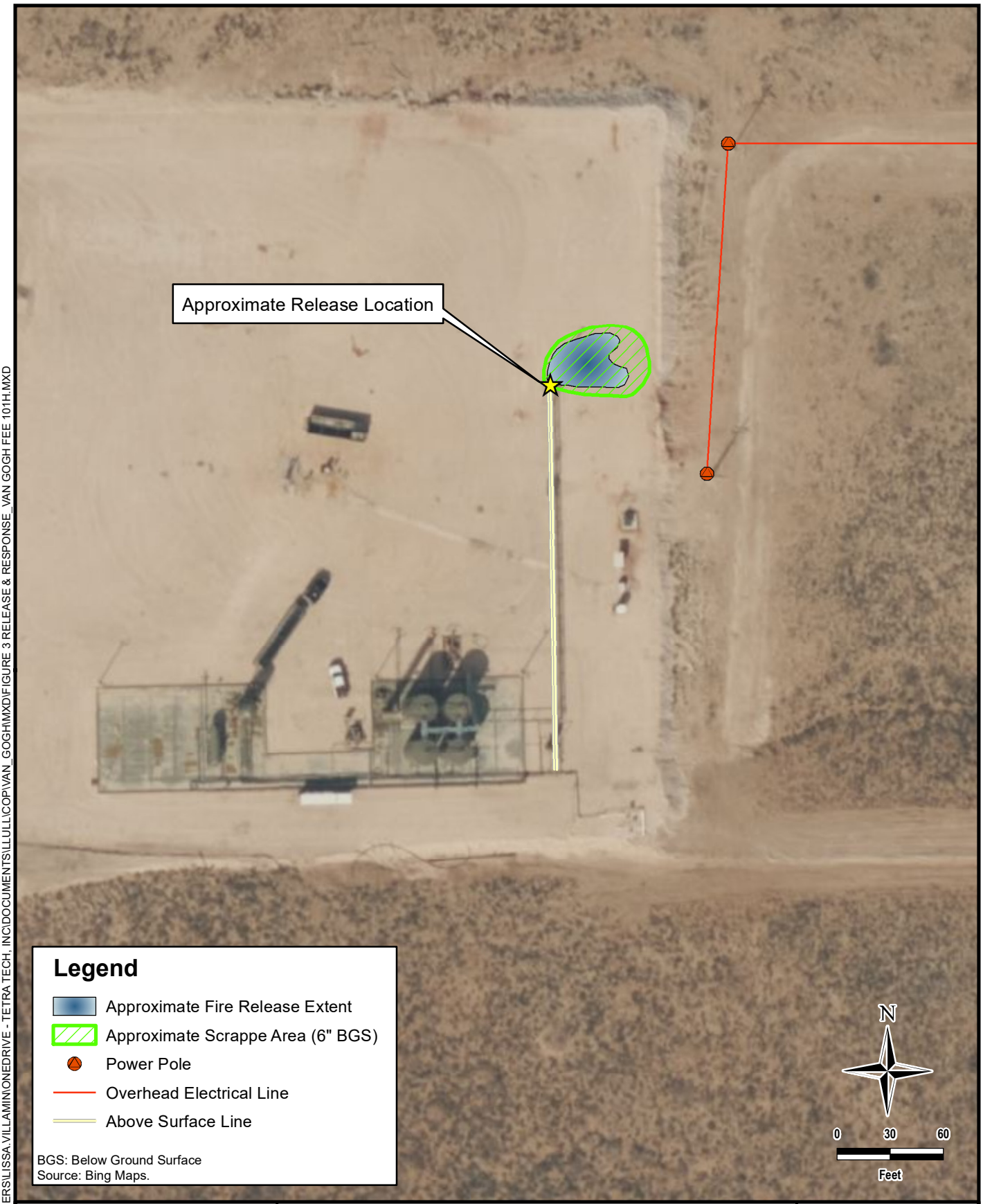
CONOCOPHILLIPS

NAPP2314253030
LEA COUNTY, NEW MEXICO
(32.238860° -103.440242°)
DOR: 5/11/2023

VAN GOGH FEE 101H FLARE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-03137
DATE:	JUNE 08, 2023
DESIGNED BY:	LMV

Figure No.
2



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\VAN_GOGH\MXD\FIGURE 3 RELEASE & RESPONSE_VAN GOGH FEE 101H.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

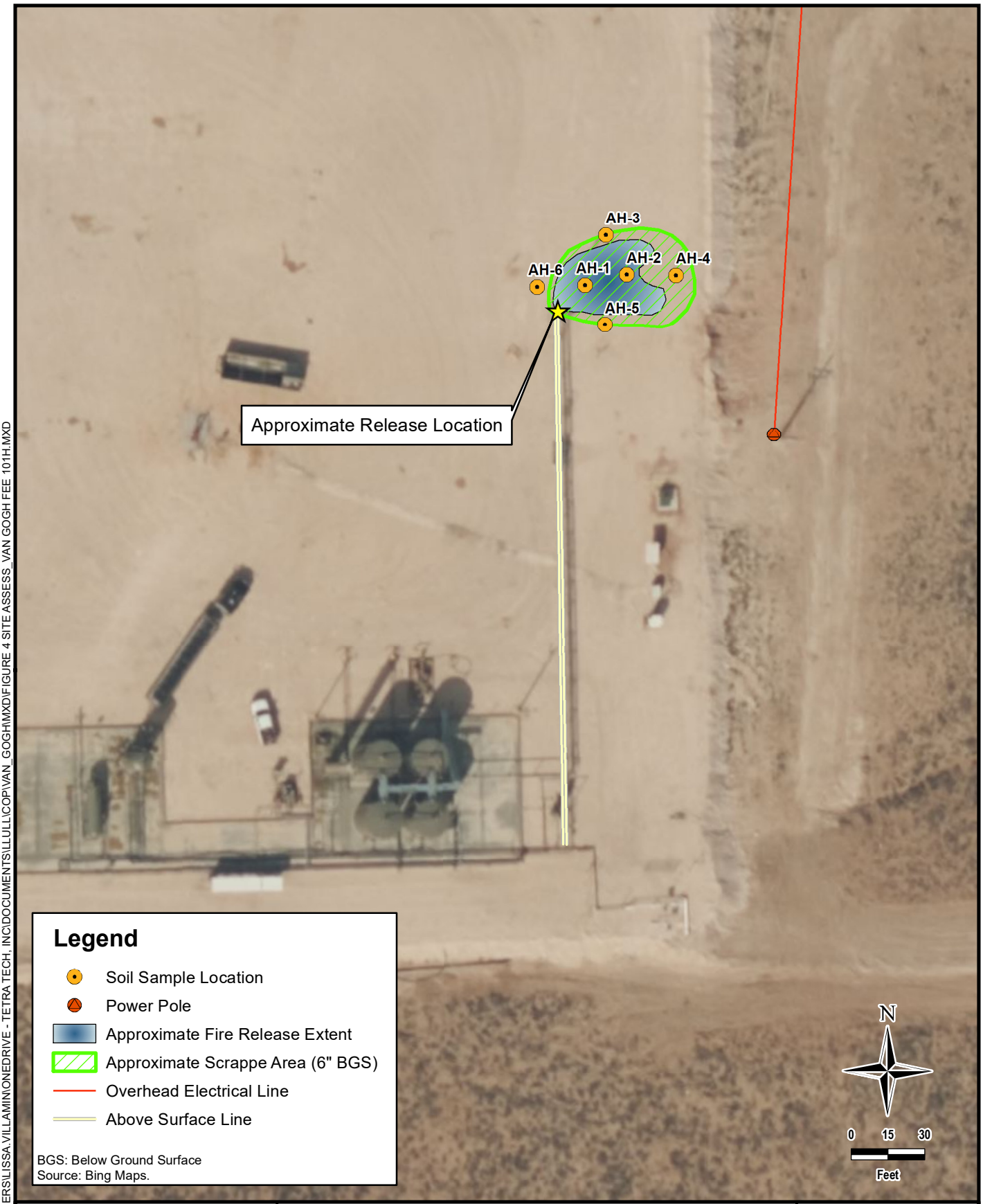
CONOCOPHILLIPS

NAPP2314253030
LEA COUNTY, NEW MEXICO
(32.238860° -103.440242°)
DOR: 5/11/2023

VAN GOGH FEE 101H RELEASE
APPROXIMATE RELEASE EXTENT AND INITIAL RESPONSE

PROJECT NO.:	212C-MD-03137
DATE:	JUNE 08, 2023
DESIGNED BY:	LMV

Figure No.
3



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\VAN_GOGH\MXD\FIGURE 4 SITE ASSESS_VAN GOGH FEE 101H.MXD

TETRA TECH

www.tetratech.com

901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS

NAPP2314253030
LEA COUNTY, NEW MEXICO
(32.238860° -103.440242°)
DOR: 5/11/2023

VAN GOGH FEE 101H RELEASE
SITE ASSESSMENT

PROJECT NO.:	212C-MD-03137
DATE:	JUNE 08, 2023
DESIGNED BY:	LMV

Figure No.
4

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2023 SOIL ASSESSMENT- nAPP2314253030
CONOCOPHILLIPS
VAN GOGH 11B FLARE FIRE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results	Chloride[1]		BTEX[2]								TPH[3]						
			Chloride			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
																C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		ft. bgs	ppm	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
AH-1	6/7/2023	0-1	503	64.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		45.5		<10.0		45.5
		1-2	101	16.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		<10.0		<10.0		-
AH-2	6/7/2023	0-1	598	80.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		21.8		<10.0		21.8
		1-2	124	<16.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		<10.0		<10.0		-
AH-3	6/7/2023	0-1	230	32.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		<10.0		<10.0		-
AH-4	6/7/2023	0-1	420	96.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		<10.0		<10.0		-
AH-5	6/7/2023	0-1	314	48.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		<10.0		<10.0		-
AH-6	6/7/2023	0-1	447	80.0		<0.050		<0.050		<0.050		<0.050		<0.050		<10.0		20.9		<10.0		20.9

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

Bold and italicized values indicate exceedance of proposed RRALs and Reclamation Requirements.

APPENDIX A
C-141 Forms

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		

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: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 05/23/2023

L48 Spill Volume Estimate Form - Fill In Gray Cells

NAPP2314253030

Facility Name & Well Number(s):	VAN GOGH 11B	Release Discovery Date & Time:	5-11-2023 @ 9:45AM
Provide any known details about the event:	KO SWAMPPED OUT SENDING FLUID TO FLARE		

BU:	Asset Area:	Recovered Volume (bbl.) (if available, not included in volume calculations)	Method of Determination (dropdown)	Release Type (dropdown):	> 1/2" of Rain in Last 24 Hours (dropdown):	% Rainwater Recovered (not included in volume calculations, informational):
Permian	DBE - Asset Avg.	0	Field Measurement	Oil	No	0%

Known Volume (dropdown):	No
Known Area (dropdown):	No

Spill Calculation - Subsurface Spill - Rectangle

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%.)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	50.0	15.0	0.1	On-Pad	10.50%	1.39	0.15
Rectangle B	20.0	10.0	0.1	Off-Pad	15.02%	0.37	0.06
Rectangle C				On-Pad	10.50%	0.00	0.00
Rectangle D						0.00	
Rectangle E						0.00	
Rectangle F						0.00	
Rectangle G						0.00	
Rectangle H						0.00	
Rectangle I						0.00	
Rectangle J						0.00	
					Total Subsurface Volume Released:		0.20

Remediation Recommendation

Total Estimated Contaminated Soil, uncompacted, 25% (yd^3.)	Current Rule of Thumb - RMR Handover Volume, (yd^3.)
0.36	
0.10	
0.00	
0.00	
0.00	
0.00	750
0.00	
0.00	
0.00	
0.00	
0.46	BU

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.

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: Jacob Laird Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Shelly Wells Date: 7/11/2023

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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: Jacob Laird Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Shelly Wells Date: 7/11/2023

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.

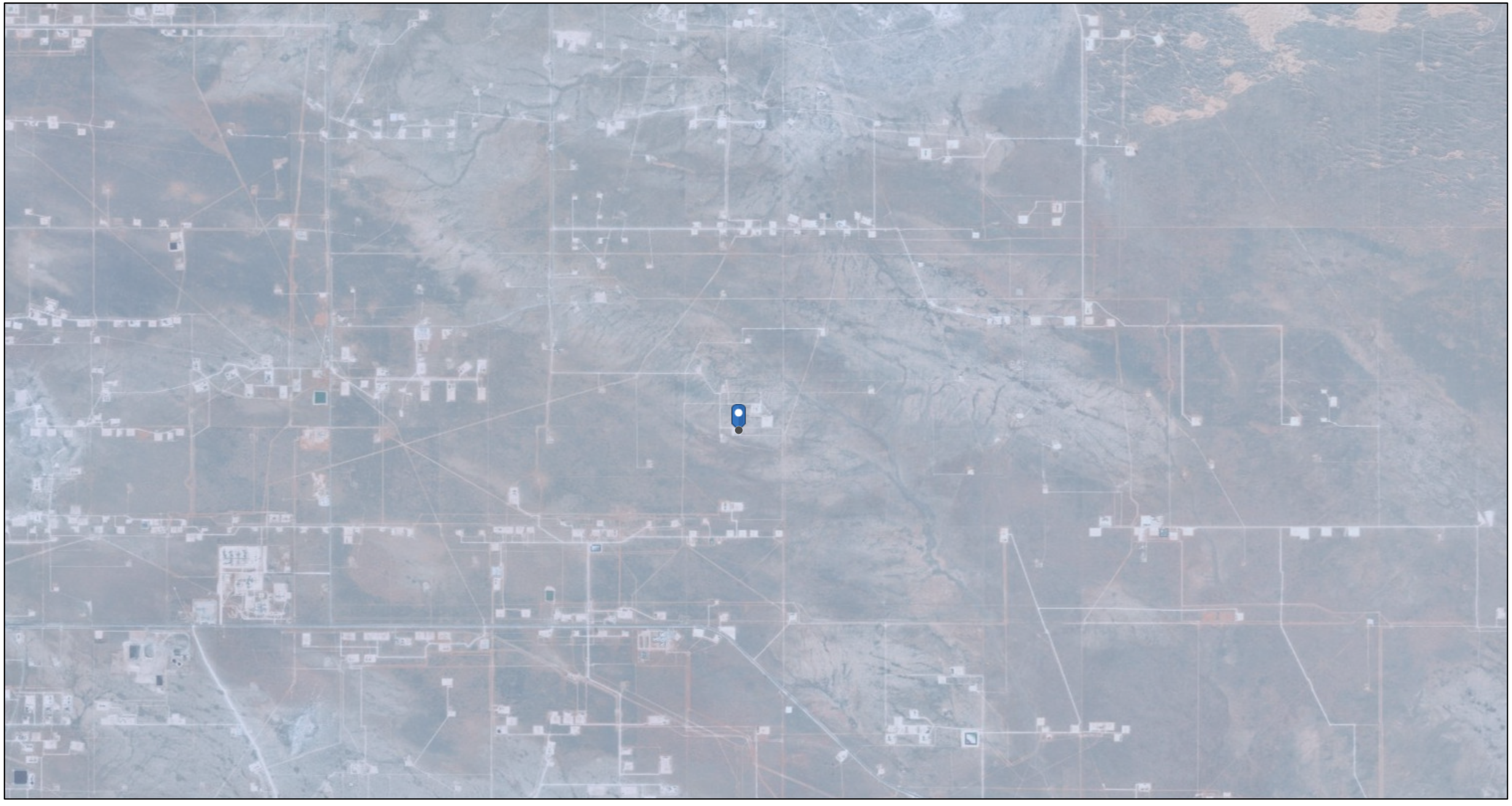
Closure Approved by: Nelson Velez Date: 10/02/2023

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

Operator did not meet 19.15.29.12D (1a) NMAC. Forbearance given on 09/27/2023 (see App ID 236326). Release resolved.

APPENDIX B
Site Characterization Data

OCD - Karst Potential Map



6/7/2023, 2:00:33 PM

Karst Occurrence Potential

Low

1:72,224

0 0.75 1.5 3 mi

0 1.25 2.5 5 km

BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, Earthstar Geographics

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

OCD - Ownership Map

6/7/2023, 1:58:00 PM

1:4,514

0 0.05 0.1 0.19 mi

0 0.07 0.15 0.3 km

U.S. BLM, Esri, HERE, Garmin, iPC, Maxar

Mineral Ownership

- A-All minerals are owned by U.S.
- N-No minerals are owned by the U.S.

Land Ownership

- P
- S

OCD - USGS Groundwater Wells

6/7/2023, 2:06:53 PM

- USGS Historical GW Wells
- USGS Active Monitoring GW Wells

1:4,514

0 0.05 0.1 0.19 mi

0 0.07 0.15 0.3 km

USGS, Esri, HERE, Garmin, iPC, Maxar

OCD - Waterbodies Map

6/7/2023, 1:52:49 PM

OSE Streams

1:4,514

0 0.05 0.1 0.19 mi

0 0.07 0.15 0.3 km

Esri, HERE, Garmin, iPC, Maxar, NM OSE

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

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

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

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

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

POD Number	POD Sub-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*		571	62	40	22

Average Depth to Water: **40 feet**

Minimum Depth: **40 feet**

Maximum Depth: **40 feet**

Record Count: 1

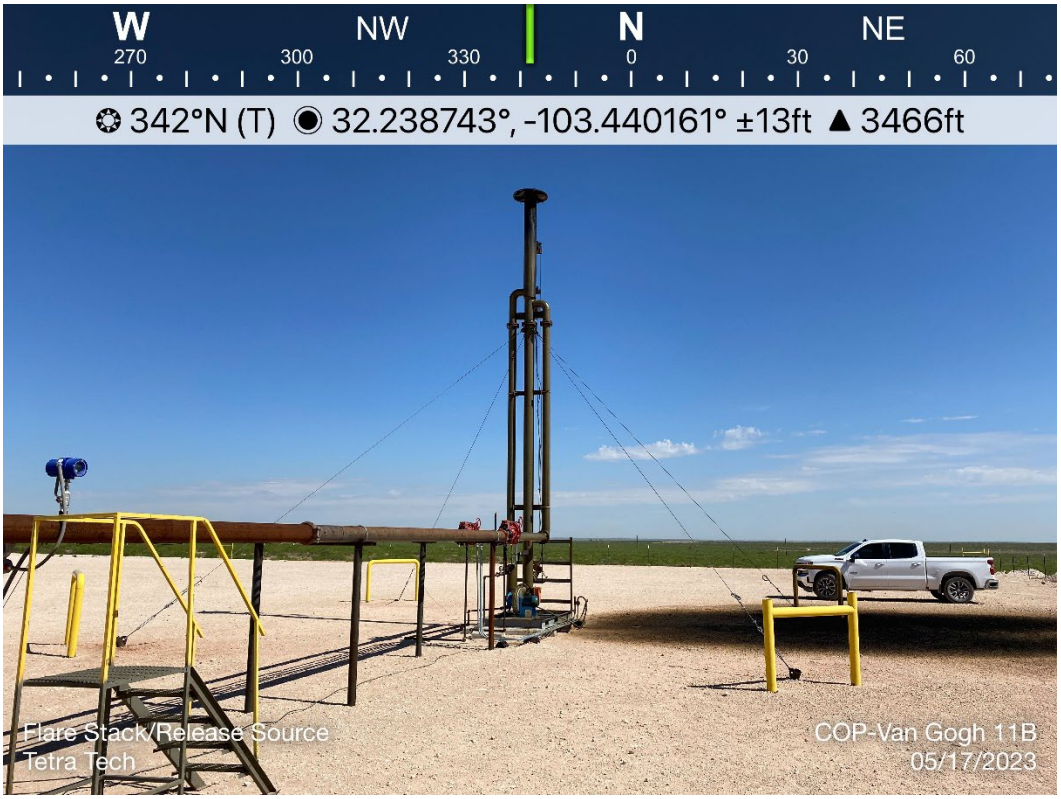
UTMNAD83 Radius Search (in meters):

Easting (X): 646952.17 **Northing (Y):** 3567979.2 **Radius:** 800

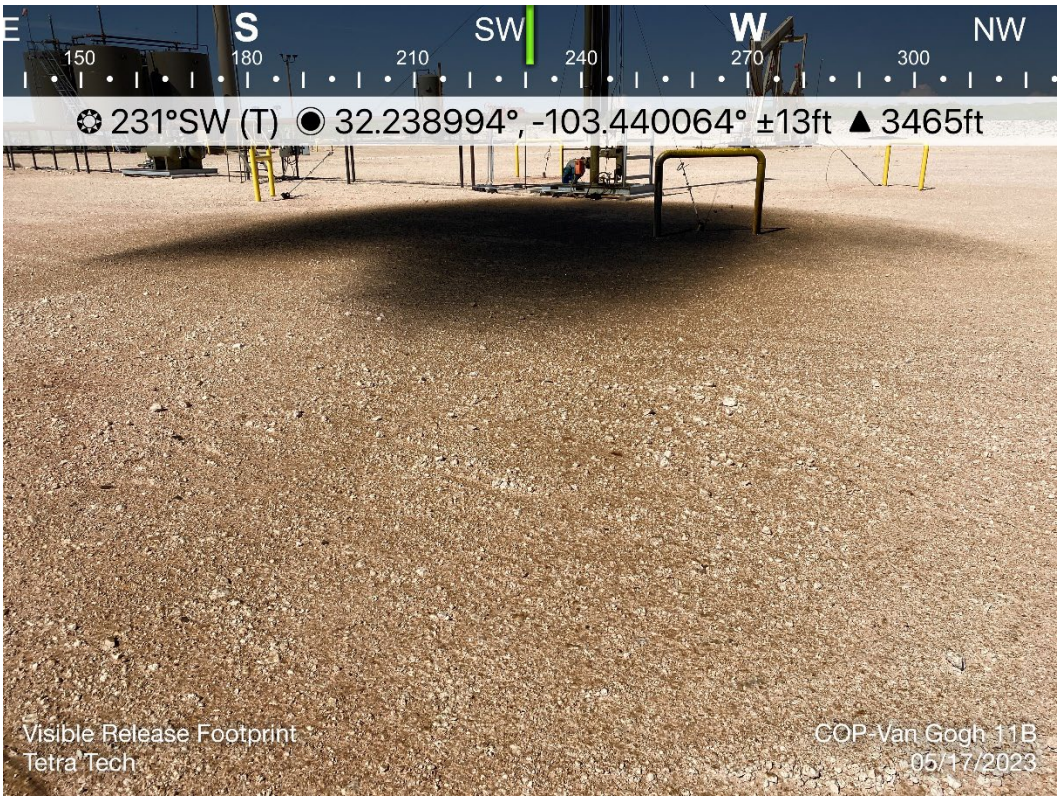
***UTM location was derived from PLSS - see Help**

APPENDIX C
Photographic Documentation

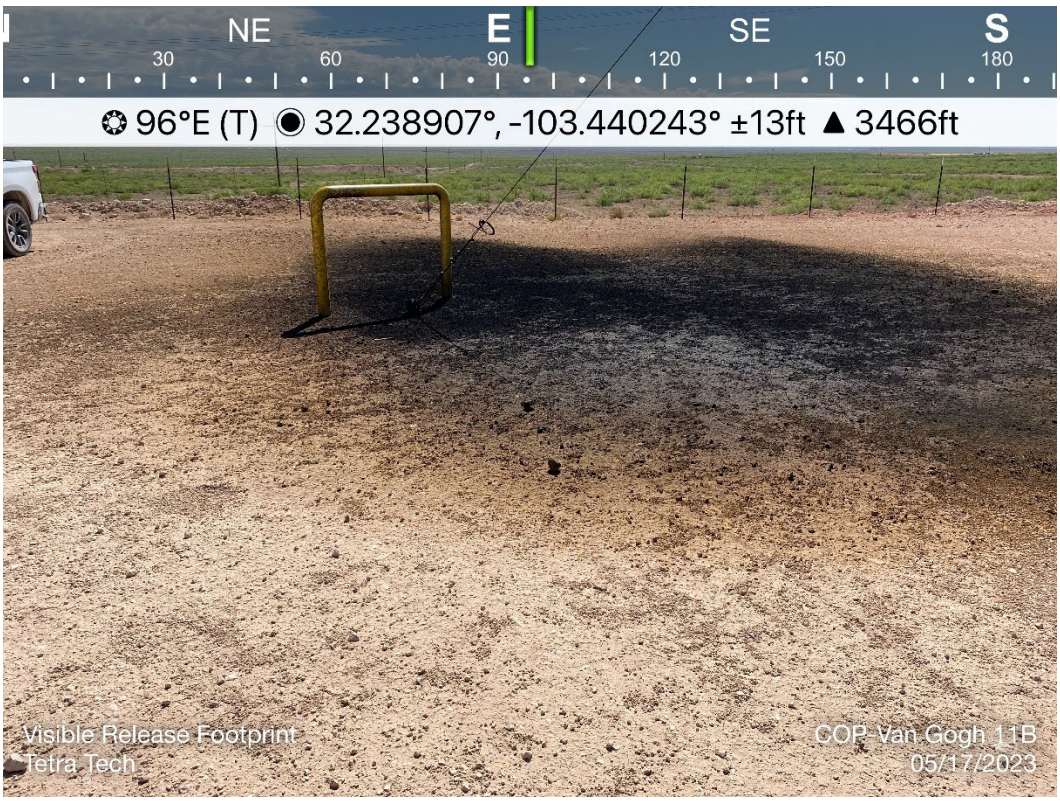
TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View of Van Gogh Fee 101H Site.	1
	SITE NAME	COP – Van Gogh Fee 101H Release	5/17/2023



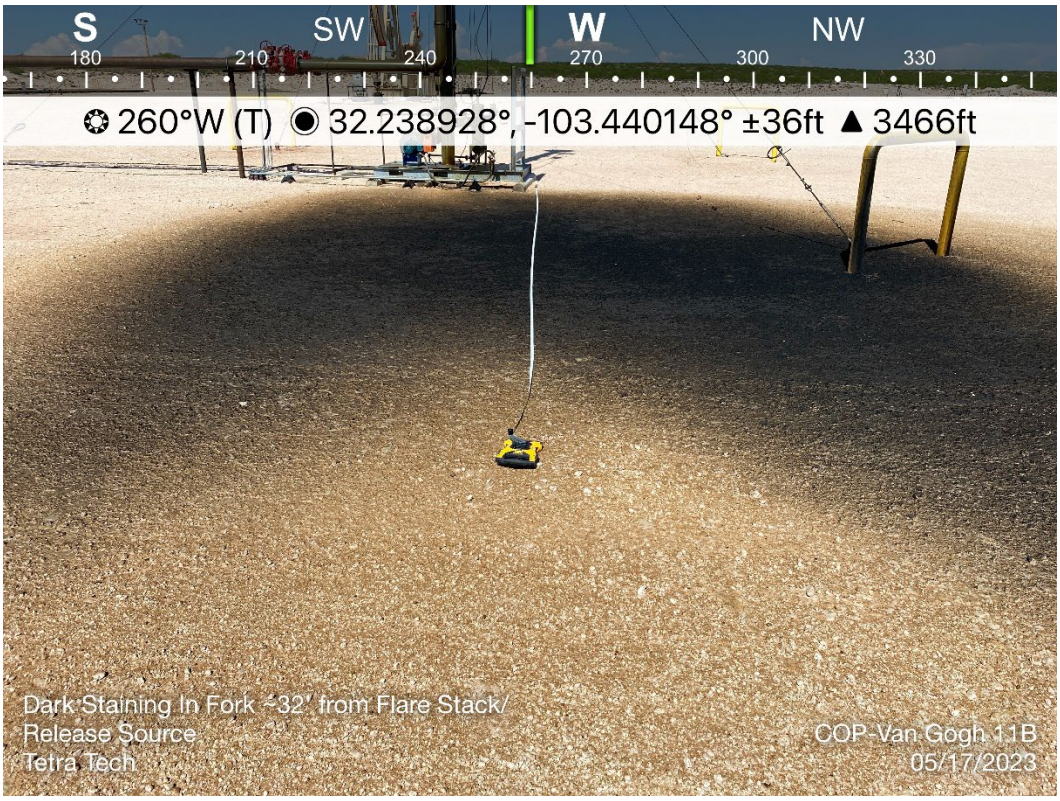
TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View north. Release point at the flare unit.	2
	SITE NAME	COP – Van Gogh Fee 101H Release	5/17/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View southwest. Release extent from flare.	3
	SITE NAME	COP – Van Gogh Fee 101H Release	5/17/2023

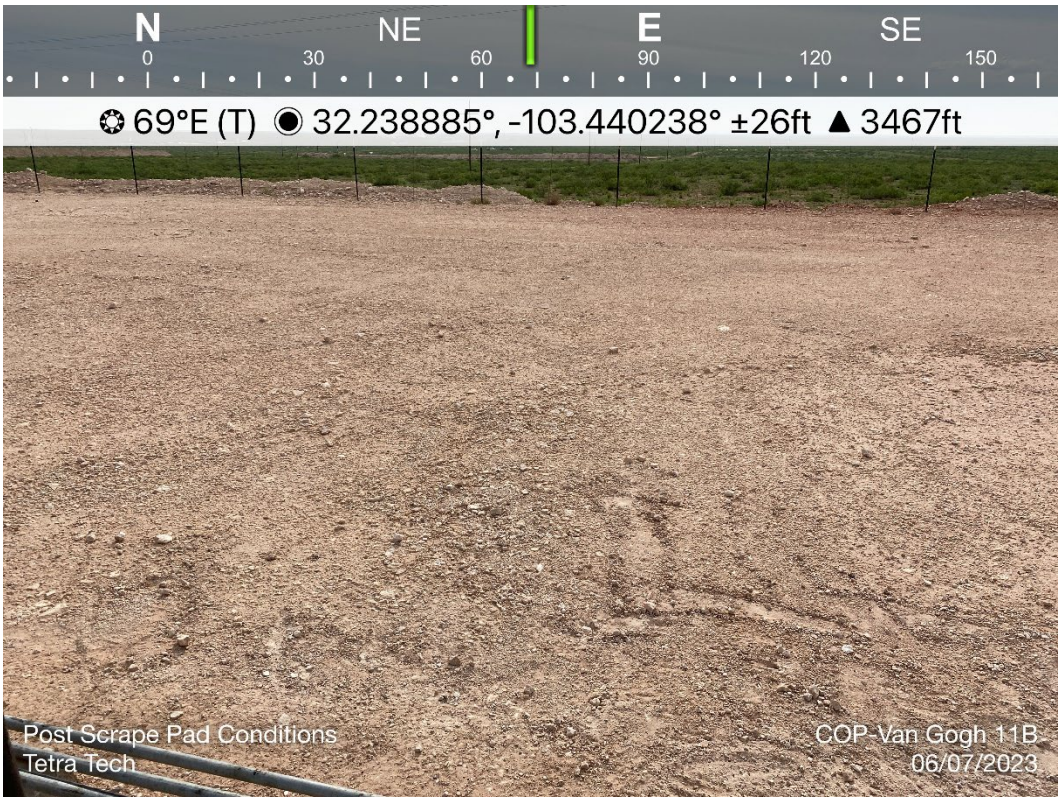


TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View east. Release extent from flare fire release.	4
	SITE NAME	COP – Van Gogh Fee 101H Release	5/17/2023

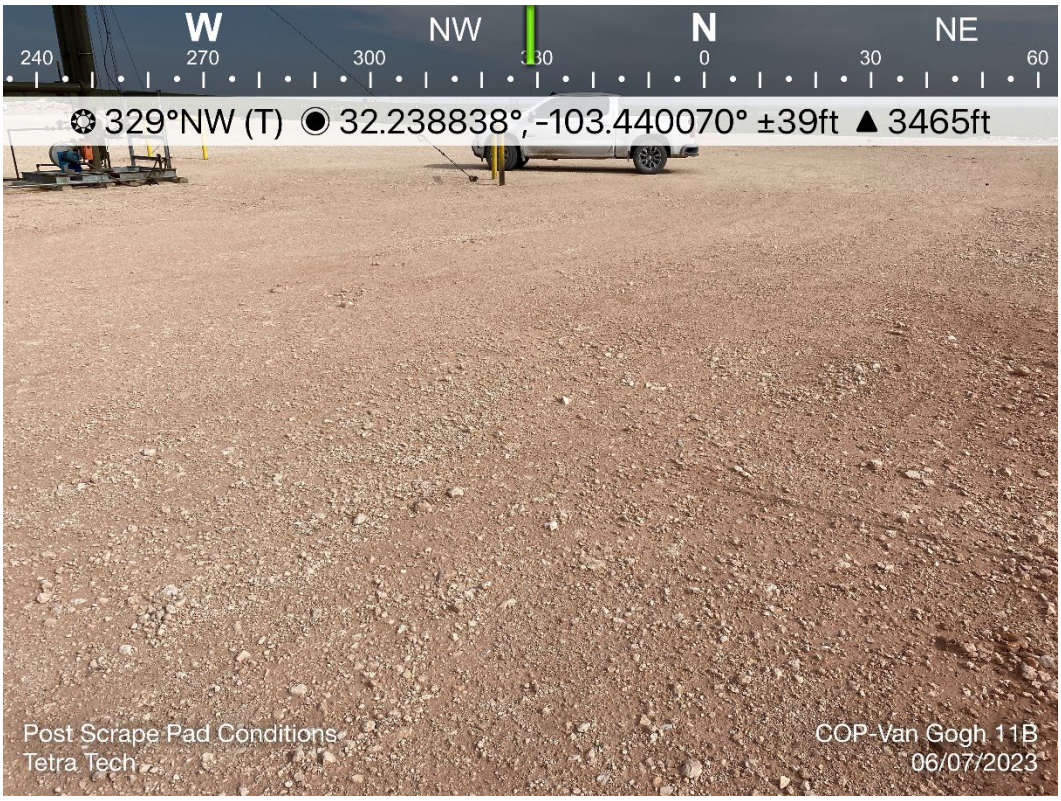


TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View west. Release extent from flare fire release.	5
	SITE NAME	COP – Van Gogh Fee 101H Release	5/17/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View southwest. Post remediation and backfill.	6
	SITE NAME	COP – Van Gogh Fee 101H Release	6/7/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View east. Post remediation and backfill.	7
	SITE NAME	COP – Van Gogh Fee 101H Release	6/7/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03137	DESCRIPTION	View north. Post remediation and backfill.	8
	SITE NAME	COP – Van Gogh Fee 101H Release	6/7/2023

APPENDIX D
Waste Manifests

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	MICHELLE MULLINS
AFE #:	
PO #:	
Manifest #:	72269
Manif. Date:	5/19/2023
Hauler:	J & R OILFIELD SERVICE
Driver	AMALIO
Truck #	115
Card #	
Job Ref #	

Ticket #:	700-1431990
Bid #:	O6UJ9A000JEC
Date:	5/19/2023
Generator:	CONOCOPHILLIPS
Generator #:	40946
Well Ser. #:	45255L
Well Name:	VAN GOGH FEE
Well #:	101H
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	5.00 yards

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

__ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

__ MSDS Information __ RCRA Hazardous Waste Analysis __ Process Knowledge __ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

APPENDIX E
Laboratory Analytical Data

CARDINAL Laboratories

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

June 12, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: VAN GOGH 11B FLARE FIRE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 06/07/23 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 1 (0-1') (H232888-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2023	ND	2.49	124	2.00	19.8	
Toluene*	<0.050	0.050	06/07/2023	ND	2.57	128	2.00	20.9	
Ethylbenzene*	<0.050	0.050	06/07/2023	ND	2.43	122	2.00	20.7	
Total Xylenes*	<0.150	0.150	06/07/2023	ND	7.61	127	6.00	22.5	
Total BTEX	<0.300	0.300	06/07/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	**45.5**	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *97.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.4 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 1 (1'-2') (H232888-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2023	ND	2.49	124	2.00	19.8	
Toluene*	<0.050	0.050	06/08/2023	ND	2.57	128	2.00	20.9	
Ethylbenzene*	<0.050	0.050	06/08/2023	ND	2.43	122	2.00	20.7	
Total Xylenes*	<0.150	0.150	06/08/2023	ND	7.61	127	6.00	22.5	
Total BTEX	<0.300	0.300	06/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	<10.0	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *109 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 2 (0-1') (H232888-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2023	ND	2.49	124	2.00	19.8	
Toluene*	<0.050	0.050	06/08/2023	ND	2.57	128	2.00	20.9	
Ethylbenzene*	<0.050	0.050	06/08/2023	ND	2.43	122	2.00	20.7	
Total Xylenes*	<0.150	0.150	06/08/2023	ND	7.61	127	6.00	22.5	
Total BTEX	<0.300	0.300	06/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	**21.8**	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *97.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.8 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 2 (1'-2') (H232888-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2023	ND	2.49	124	2.00	19.8	
Toluene*	<0.050	0.050	06/08/2023	ND	2.57	128	2.00	20.9	
Ethylbenzene*	<0.050	0.050	06/08/2023	ND	2.43	122	2.00	20.7	
Total Xylenes*	<0.150	0.150	06/08/2023	ND	7.61	127	6.00	22.5	
Total BTEX	<0.300	0.300	06/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	<10.0	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *111 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 3 (0-1') (H232888-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2023	ND	2.49	124	2.00	19.8	
Toluene*	<0.050	0.050	06/08/2023	ND	2.57	128	2.00	20.9	
Ethylbenzene*	<0.050	0.050	06/08/2023	ND	2.43	122	2.00	20.7	
Total Xylenes*	<0.150	0.150	06/08/2023	ND	7.61	127	6.00	22.5	
Total BTEX	<0.300	0.300	06/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	<10.0	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *90.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.4 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 4 (0-1') (H232888-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/08/2023	ND	2.49	124	2.00	19.8	
Toluene*	<0.050	0.050	06/08/2023	ND	2.57	128	2.00	20.9	
Ethylbenzene*	<0.050	0.050	06/08/2023	ND	2.43	122	2.00	20.7	
Total Xylenes*	<0.150	0.150	06/08/2023	ND	7.61	127	6.00	22.5	
Total BTEX	<0.300	0.300	06/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	<10.0	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *93.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *92.3 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 5 (0-1') (H232888-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2023	ND	2.22	111	2.00	1.28	
Toluene*	<0.050	0.050	06/09/2023	ND	2.21	111	2.00	0.322	
Ethylbenzene*	<0.050	0.050	06/09/2023	ND	2.26	113	2.00	1.27	
Total Xylenes*	<0.150	0.150	06/09/2023	ND	6.68	111	6.00	1.15	
Total BTEX	<0.300	0.300	06/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	<10.0	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *99.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.0 %* *49.1-148*

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:

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

Received:	06/07/2023	Sampling Date:	06/07/2023
Reported:	06/12/2023	Sampling Type:	Soil
Project Name:	VAN GOGH 11B FLARE FIRE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03137	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 6 (0-1') (H232888-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2023	ND	2.22	111	2.00	1.28	
Toluene*	<0.050	0.050	06/09/2023	ND	2.21	111	2.00	0.322	
Ethylbenzene*	<0.050	0.050	06/09/2023	ND	2.26	113	2.00	1.27	
Total Xylenes*	<0.150	0.150	06/09/2023	ND	6.68	111	6.00	1.15	
Total BTEX	<0.300	0.300	06/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	06/07/2023	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2023	ND	173	86.4	200	24.7	
DRO >C10-C28*	**20.9**	10.0	06/08/2023	ND	163	81.5	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	06/08/2023	ND					

Surrogate: 1-Chlorooctane *84.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
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

1/1

Company Name:	Tetra Tech	BILL TO P.O. #:	
Project Manager:	Christian Llull	Company:	Tetra Tech
Address:		Attn:	Christian Llull
City:	State: Zip:	Address:	email
Phone #:	Fax #:	City:	
Project #:	212C-MD-03157 Project Owner: ConocoPhillips	State:	Zip:
Project Name:	Van Gogh 11B Flare Fire Release	Phone #:	
Project Location:	Lea County, NM	Fax #:	
Sampler Name:	Colton Blickenstaff		

FOR LAB USE ONLY Lab I.D.	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	ANALYSIS REQUEST: TPH	BTEX	Chlorides
H232888																	
1	AH-1 (0-1')	G	1			X					X		6/7/23		X	X	X
2	AH-1 (1'-2')																
3	AH-2 (0-1')																
4	AH-2 (1'-2')																
5	AH-3 (0-1')																
6	AH-4 (0-1')																
7	AH-5 (0-1')																
8	AH-6 (0-1')																

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:	Date: 6/7/23	Received By:	Verbal Result: ☐ Yes ☑ No Add'l Phone #:
	Time: 1105		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	Christian.Llull@tetratech.com
	Time:		REMARKS:

Delivered By: (Circle One)	Observed Temp. °C 6.6	Sample Condition Cool: ☑ Yes ☐ No	Intact: ☐ Yes ☑ No	CHECKED BY: (Initials)	Turnaround Time: ☒ Standard ☐ Rush
Sampler - UPS - Bus - Other:	Corrected Temp. °C 6.0				Thermometer ID #113 Correction Factor -0.6°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

FORM-006 R 3.3 07/18/22

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

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

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

CONDITIONS

Action 238389

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 238389
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Operator did not meet 19.15.29.12D (1a) NMAC. Forbearance given on 09/27/2023 (see App ID 236326). Release resolved.	10/2/2023