TETRA TECH

March 2, 2023

Brittany Hall
Projects Environmental Specialist
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Release Characterization and Closure Request
ConocoPhillips
Heritage Concho
Osprey 20 State Com #003H Flare Release
Unit Letter K, Section 20, Township 21 South, Range 34 East
Lea County, New Mexico
Incident ID# nOY1823239315

Ms. Hall:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a Heritage Concho release that occurred at the Osprey 20 State Com #003H well (API No. 30-025-40969). The release footprint is located in Public Land Survey System (PLSS) Unit Letter K, Section 20, Township 21 South, Range 34 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.463732°, -103.494739°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report, the release occurred on August 10, 2018 when packing in the oil dump caused it to fail, allowing the tanks to overflow and spray out of the flare. Approximately five (5) barrels (bbls) of oil were released from the flare, of which one (1) bbl was recovered. The release impacted the pad surrounding the flare as well as an overspray area in the pasture, as shown on Figure 3. The NMOCD approved the initial C-141 on August 20, 2018 and subsequently assigned the release the Incident ID nOY1823239315. The initial C-141 form is included in Appendix A.

SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, stream bodies, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). A playa lake is located approximately 650 feet southeast of the approximate release point. The Site is in an area of low karst potential.

There are no water wells listed in the New Mexico Office of the State Engineer (NMOSE database located within approximately ½ mile (800 meters) of the site. According to data from one (1) water well listed in the NMOSE database within approximately 0.9 miles (1,477 meters) of the Site, the depth to groundwater is 128 feet below ground surface (bgs). The site characterization data are presented in Appendix B.

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

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 RRALs for the Site are as follows:

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

INITIAL SITE ASSESSMENT AND WORK PLAN

Concho conducted initial Site assessment activities in August 2018. One (1) hand auger boring (AH-1) was installed on August 21, 2018 within the flare pit to a depth of one (1) foot bgs. Four (4) additional hand auger borings (AH-2 through AH-5) were installed on August 23, 2018 to 0.5 feet each. Borings AH-2 and AH-3 were installed within the flare pit, and AH-4 and AH-5 were installed within the overspray extent in the pasture. Initial assessment boring locations are shown in Figure 4.

A total of six (6) soil samples were collected from the two borings and sent to Xenco Laboratories in Midland, Texas to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M and BTEX via EPA Method 8261B. Analytical results from the August 2018 initial assessment activities are summarized in Table 1. The analytical result associated with the 0-0.5 foot interval of boring AH-1 exceeded the TPH RRAL of 100 mg/kg. All other analytical results were below the Site RRALs.

Concho prepared a Work Plan dated November 2, 2018 that summarized the initial assessment activities and proposed remediation at the Site and submitted it to NMOCD for approval. In this Work Plan Concho proposed to excavate soils in the area of AH-1 on the pad to a depth of 0.5 feet bgs and collect 5-point composite samples every 200 square feet for final confirmation sampling. A copy of the Work Plan is available in the NMOCD online incident files.

ConocoPhillips received NMOCD approval of the Work Plan in an email from Brittany Hall dated December 1, 2022 with the following comments:

- *"Confirmation and side wall samples will need to be collected from the excavation.*
- *1RP-5158 closed. Please refer to incident #nOY1823239315 for all future communication.*
- *Submit a complete report through the OCD Permitting website by 3/3/2023."*

A copy of the regulatory correspondence is included in Appendix C.

CONFIRMATION SITE ASSESSMENT AND SAMPLING RESULTS

Following receipt of the NMOCD approval of the Work Plan, Tetra Tech conducted confirmation assessment sampling at the Site on behalf of ConocoPhillips in order to evaluate current site conditions and prepare to execute the proposed excavation activities. On February 16, 2023 Tetra Tech installed three (3) hand auger borings (AH-23-1 through AH-23-3) to 1 foot bgs in the locations of the previously sampled borings (AH-1 through AH-3), as shown on Figure 3. No visible evidence of the release was observed during the 2023 sampling event. Photographic documentation of the release Site is presented in Appendix D.

A total of three (3) soil samples were collected from the two borings and sent to Cardinal Laboratories in Midland, Texas to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX

via EPA Method 8261B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E.

Analytical results from the 2023 confirmation assessment activities are summarized in Table 2. All analytical results were below the applicable Site RRALs.

CONCLUSION

All analytical results associated with 2023 confirmation assessment results were below the Site RRALs; therefore, no remediation of the release footprint is necessary. Based on the above, ConocoPhillips respectfully requests closure for this release. Final reclamation of the well pad shall take place in accordance with 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations. 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. Charles Beauvais, PBU – ConocoPhillips

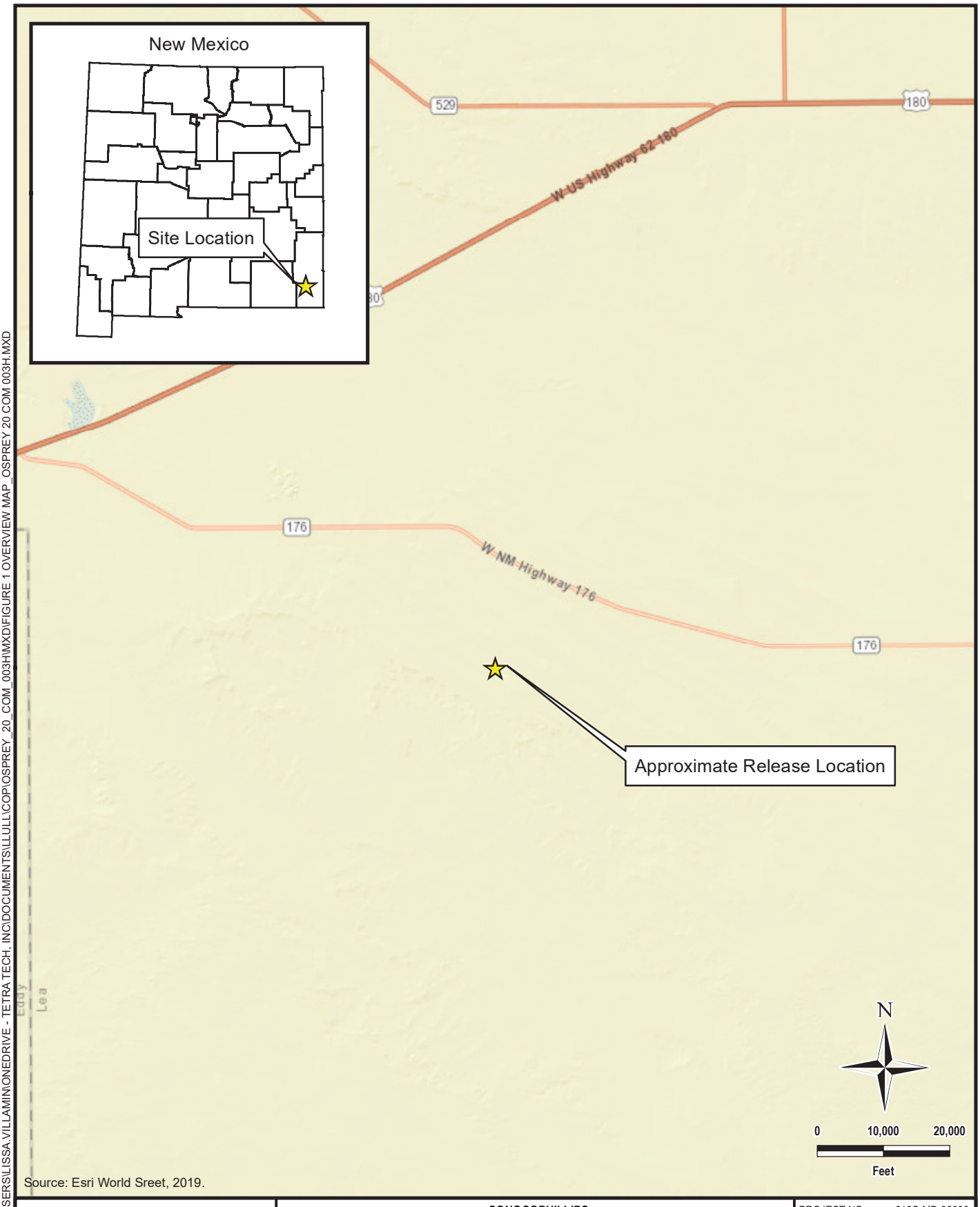
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



Source: Esri World Sreet, 2019.

DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\OSPREY_20_COM_003H\MXD\FIGURE 1 OVERVIEW MAP_OSPREY 20 COM 003H.MXD

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

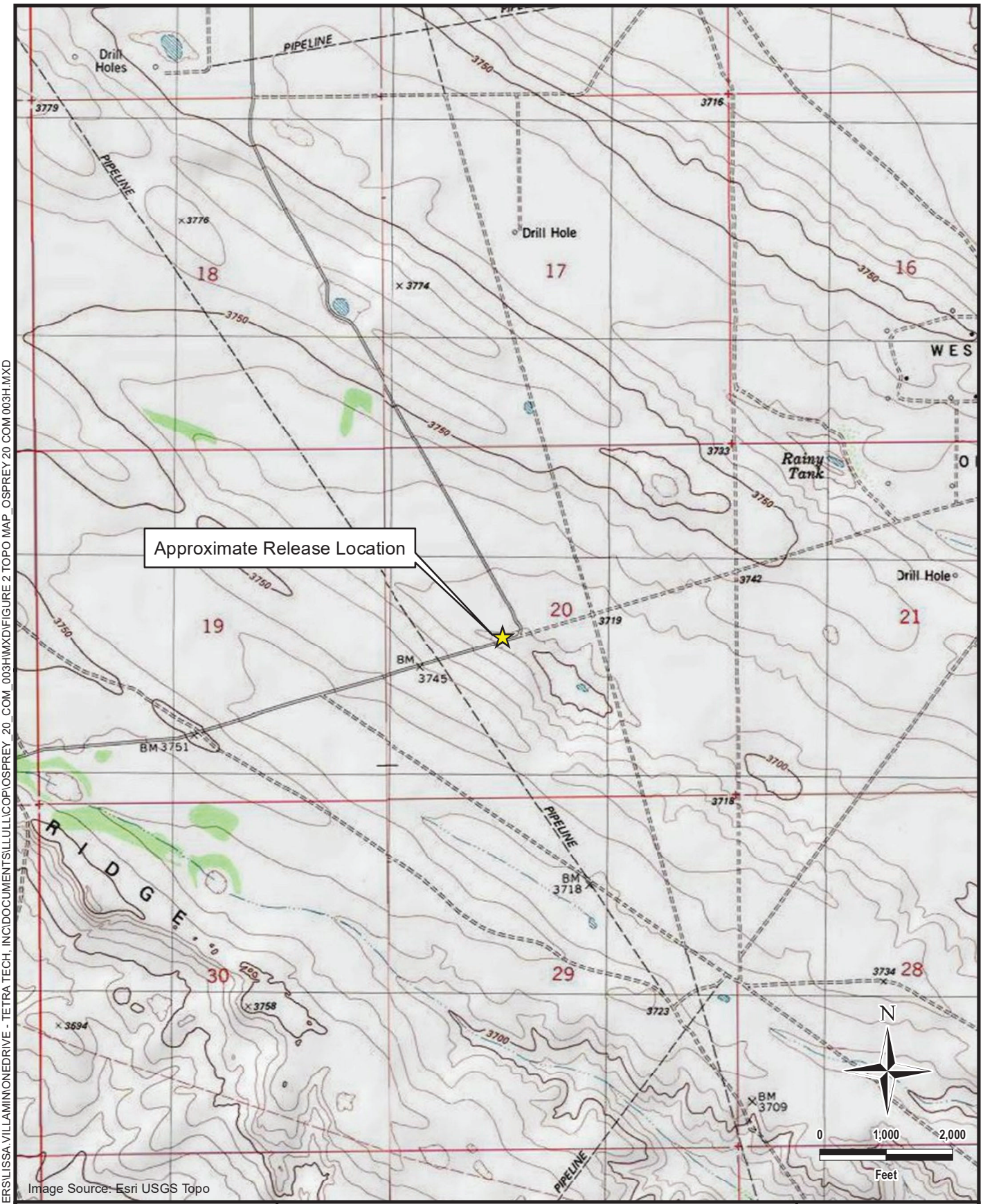
CONOCOPHILLIPS

NOY1823239315
(32.463732°, -103.494739°))
LEA COUNTY, NEW MEXICO

OSPREY 20 STATE COM #003H
OVERVIEW MAP

PROJECT NO.:	212C-MD-02988
DATE:	FEBRUARY 24, 2023
DESIGNED BY:	LMV

Figure No.
1



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\OSPREY_20_COM_003H\MXD\FIGURE 2 TOPO MAP_OSPREY 20 COM 003H.MXD

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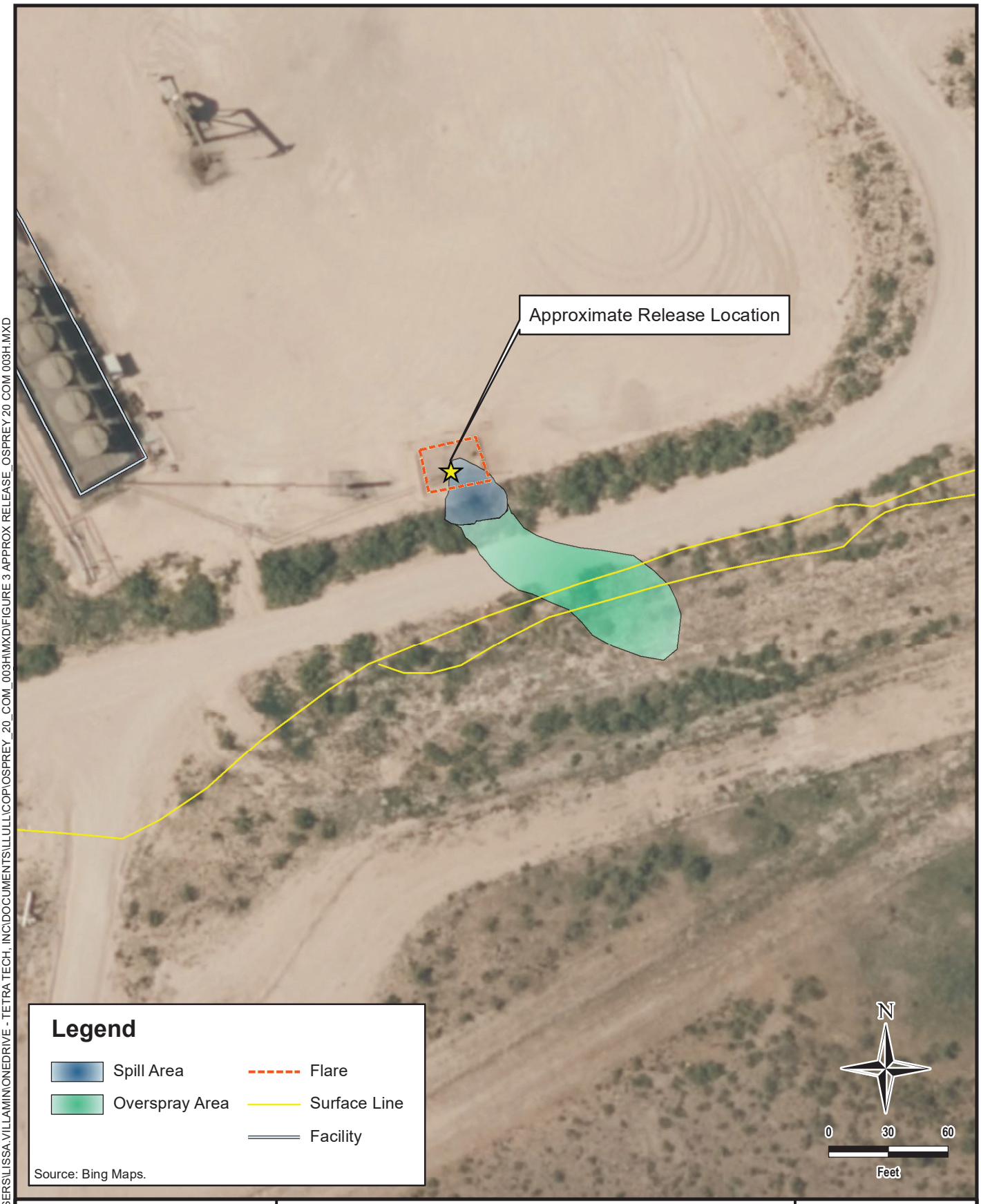
CONOCOPHILLIPS

NOY1823239315
(32.463732°, -103.494739°))
LEA COUNTY, NEW MEXICO

OSPREY 20 STATE COM #003H
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02988
DATE:	FEBRUARY 24, 2023
DESIGNED BY:	LMV

Figure No.
2



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\OSPREY_20_COM_003H\MXD\FIGURE 3 APPROX RELEASE_OSPREY 20 COM 003H.MXD

TETRA TECH

www.tetratech.com

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

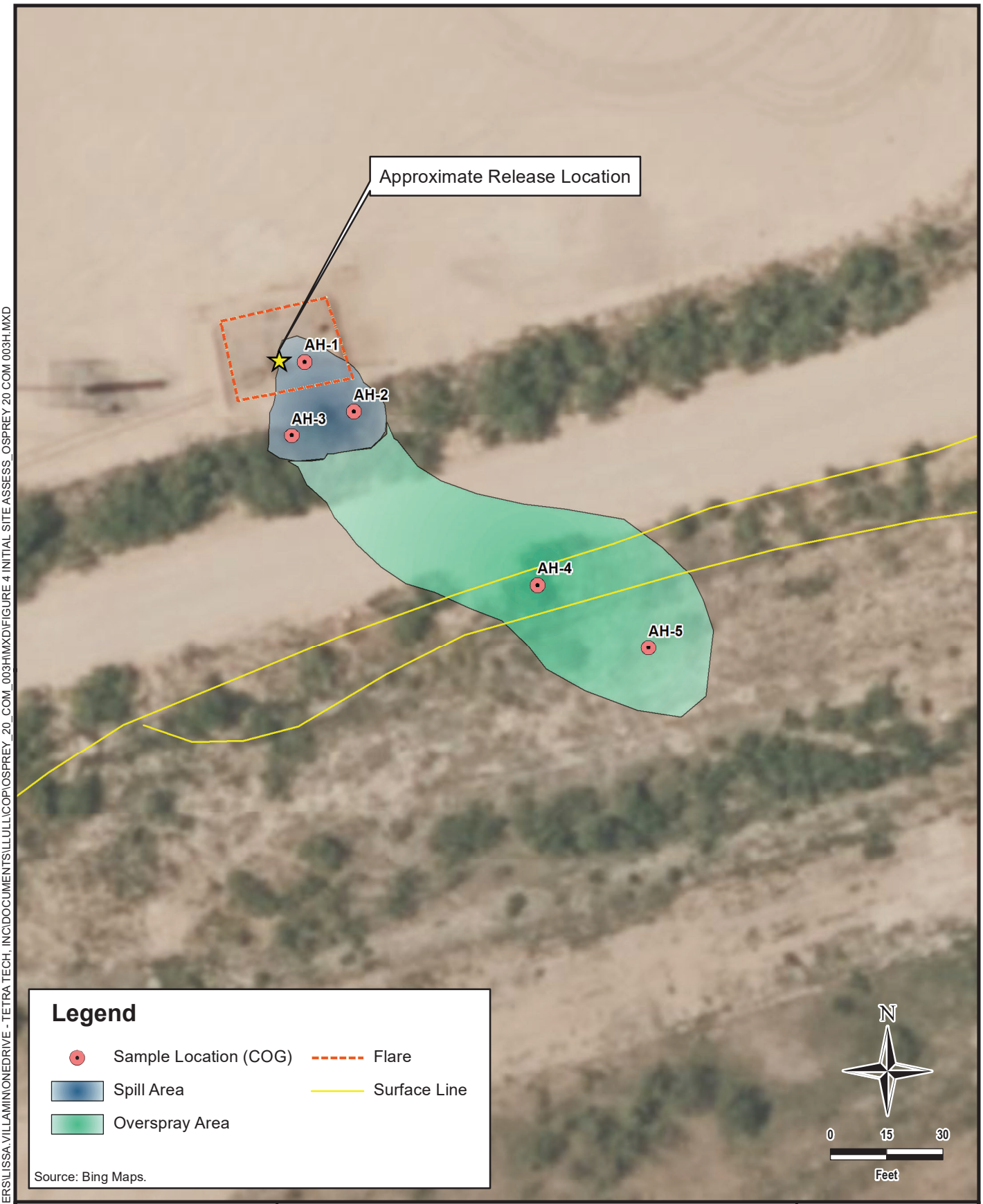
CONOCOPHILLIPS

NAPP2302439496
(32.18053°, -103.640360°)
LEA COUNTY, NEW MEXICO

OSPREY 20 STATE COM #003H
APPROXIMATE RELEASE EXTENT MAP

PROJECT NO.:	212C-MD-02988
DATE:	FEBRUARY 24, 2023
DESIGNED BY:	LMV

Figure No.
3



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\OSPREY_20_COM_003H\MXD\FIGURE 4 INITIAL SITE ASSESS_OSPREY 20 COM 003H.MXD

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Fax: (432) 682-3946

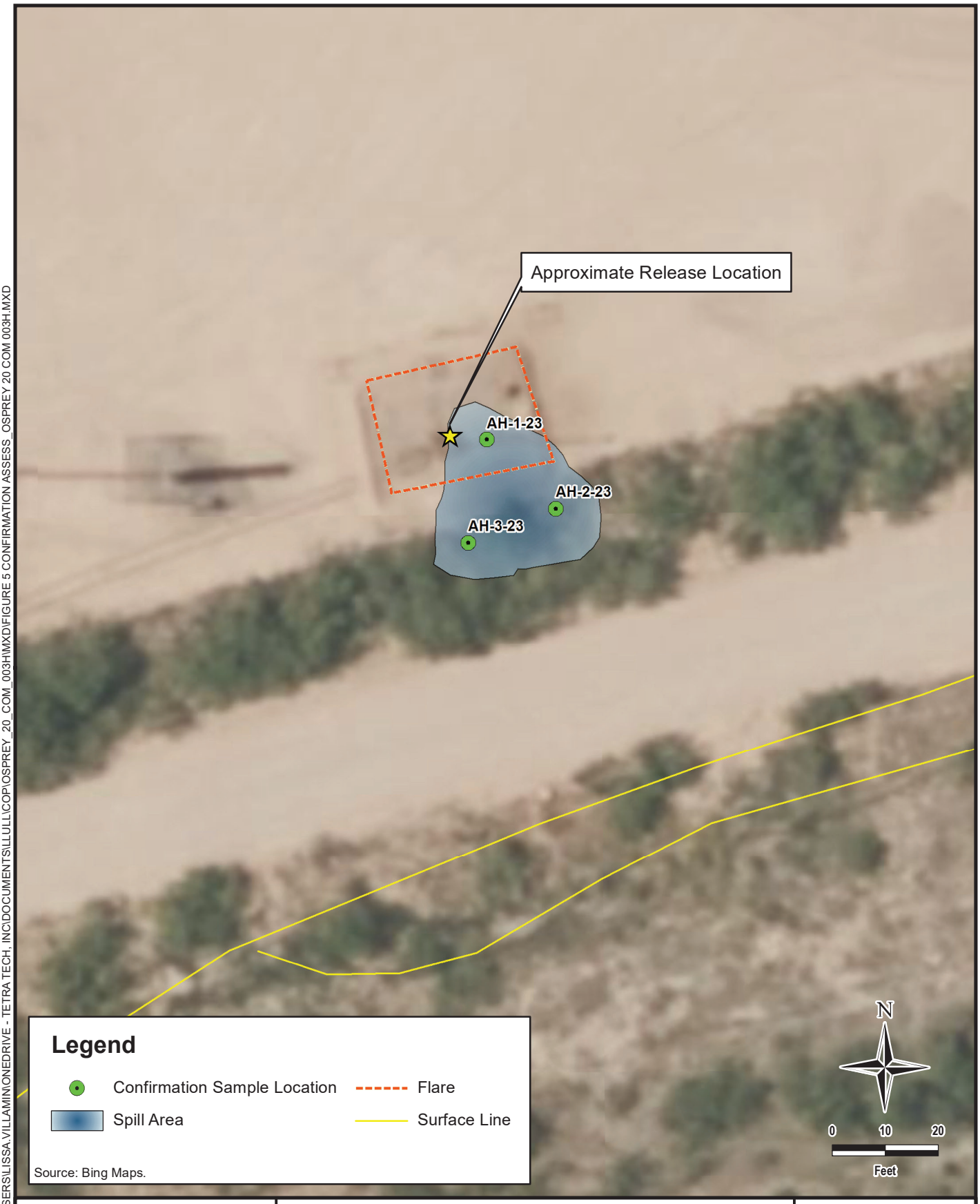
CONOCOPHILLIPS

NAPP2302439496
(32.18053°, -103.640360°)
LEA COUNTY, NEW MEXICO

OSPREY 20 STATE COM #003H
INITIAL SITE ASSESSMENT MAP

PROJECT NO.:	212C-MD-02988
DATE:	FEBRUARY 24, 2023
DESIGNED BY:	LMV

Figure No.
4



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\OSPREY_20_COM_003H\MXD\FIGURE 5 CONFIRMATION ASSESS_OSPREY 20 COM 003H.MXD

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CONOCOPHILLIPS

NAPP2302439496
(32.18053°, -103.640360°)
LEA COUNTY, NEW MEXICO

OSPREY 20 STATE COM #003H
CONFIRMATION ASSESSMENT MAP

PROJECT NO.:	212C-MD-02988
DATE:	FEBRUARY 24, 2023
DESIGNED BY:	LMV

Figure No.
5

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2018 COG SOIL ASSESSMENT - nOY1823239315
CONOCOPHILLIPS
OSPREY 20 STATE COM #003H
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride[1]		BTEX[2]														TPH[3]									
					Benzene		Toluene		Ethylbenzene		m,p-Xylenes		o-Xylene		Total Xylenes		Total BTEX		GRO		DRO		ORO		Total TPH	
		ft. bgs	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	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q
AH-1	8/21/2018	0 - 0.5	236		<0.00199	U	<0.00199	U	<0.00199	U	<0.00398	U	0.0438		0.0438		0.0438		27.6		233		<15.0	U	***261***	
		0.5 - 1.0	NA		NA		NA		NA		NA		NA		NA		NA		<15.0	U	18.0		<15.0	U	18.0	
AH-2	8/21/2018	0 - 0.5	21.3		<0.00199	U	<0.00199	U	<0.00199		<0.00398	U	<0.00199	U	<0.00199	U	<0.00199	U	<15.0	U	59.4		<15.0	U	59.4	
AH-3	8/21/2018	0 - 0.5	<5.00	U	<0.00202	U	<0.00202	U	<0.00202	U	<0.00403	U	<0.00202	U	<0.00202	U	<0.00202	U	<15.0	U	<15.0	U	<15.0	U	<15.0	U
AH-4	8/21/2018	0 - 0.5	15.9		<0.00202	U	<0.00202	U	<0.00202	U	<0.00404	U	<0.00202	U	<0.00202	U	<0.00202	U	<15.0	U	16.5		<15.0	U	16.5	U
AH-5	8/21/2018	0 - 0.5	31.1		<0.00200	U	<0.00200	U	<0.00200	U	<0.00401	U	<0.00200	U	<0.00200	U	<0.00200	U	<15.0	U	<15.0		<15.0	U	<15.0	U

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

ORO Organic Range Oil

NS Sample not analyzed for parameter

1 EPA Method 300.0

2 EPA Method 8021B

3 Method SW8015 Mod

NA Analyte not sampled for parameter

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

QUALIFIER: U **Analyte was not detected**

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2023 CONFIRMATION SOIL ASSESSMENT- nOY1823239315
CONOCOPHILLIPS
OSPREY 20 STATE COM #003H
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-1-23	2/16/2023	0-1	59.3	32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
AH-2-23	2/16/2023	0-1	73.4	32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
AH-3-23	2/16/2023	0-1	206.1	80.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-

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 Remediation RRALs and Reclamation Requirements.

QUALIFIERS:

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

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC (OGRID #229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-683-7443
Facility Name: **Osprey 20 State Com #003H**	Facility Type: Tank Battery

Surface Owner: State	Mineral Owner: State	API No. 30-025-40969

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	20	21S	34E					Lea

Latitude 32.463732 **Longitude** -103.494739 NAD83

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 5 bbl.	Volume Recovered: 1 bbl.
Source of Release: Valve Failure	Date and Hour of Occurrence: August 10, 2018 9:36am	Date and Hour of Discovery: August 10, 2018 9:36am
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 10:51 am, Aug 20, 2018

Describe Cause of Problem and Remedial Action Taken.*

Packing in the oil dump caused it to fail allowing the tanks to overflow and spray out of the flare.

Describe Area Affected and Cleanup Action Taken.*

The release was within a pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

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

Signature: DeAnn Grant	OIL CONSERVATION DIVISION
Printed Name: DeAnn Grant	Approved by Environmental Specialist:
Title: HSE Administrative Assistant	Approval Date: 8/20/2018 Expiration Date:
E-mail Address: agrant@concho.com	Conditions of Approval: Attached ☐
Date: August 13, 2018 Phone: 432-253-4513	See NMAC 19.15.29 for conditions. Please be advised that release characterization must be completed before any significant remedial activities.

* Attach Additional Sheets If Necessary

nOY1823239315 pOY1823239504 1RP-5158

State of New Mexico
Oil Conservation Division

Incident ID	nOY1823239315
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?	<50 (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	nOY1823239315
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: Charles R. Beauvais Title: Environmental Engineer

Signature: Charles R. Beauvais II Date: 03/2/2023

email: Charles R. Beauvais@ConocoPhillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 03/03/2023

State of New Mexico
Oil Conservation Division

Incident ID	nOY1823239315
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: Charles R. Beauvais Title: Environmental Engineer

Signature: Charles R. Beauvais II Date: 3/2/2023

email: Charles R. Beauvais@ConocoPhillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 03/03/2023

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: Brittany Hall Date: 3/14/2023

Printed Name: Brittany Hall Title: Environmental Specialist

APPENDIX B
Site Characterization Data

OCD Waterbodies Map

2/8/2023, 2:03:44 PM

OSW Water Bodys

OSE Probable Playas

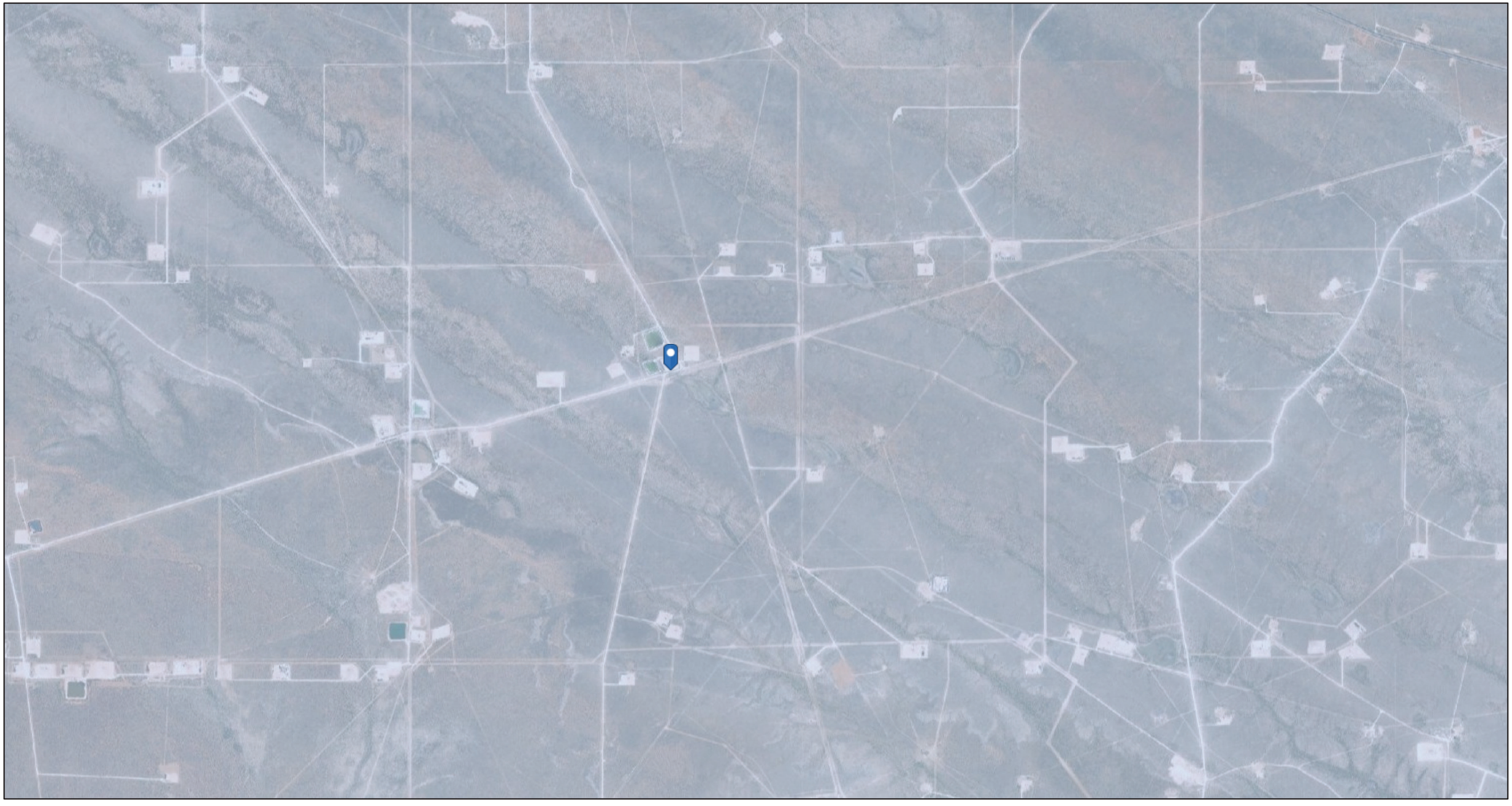
1:4,514

0 0.05 0.1 0.19 mi

0 0.07 0.15 0.3 km

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

OCD Karst Potential Map



2/8/2023, 2:05:22 PM

Karst Occurrence Potential

Low

1:36,112

0 0.38 0.75 1.5 mi

0 0.5 1 2 km

BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, Maxar

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
CP 00583	CP	LE		3		21	21S	34E	642944	3592518*	1477	171	128	43

Average Depth to Water: **128 feet**

Minimum Depth: **128 feet**

Maximum Depth: **128 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 641497 **Northing (Y):** 3592815.96 **Radius:** 1600

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

APPENDIX C
Regulatory Correspondence

From: OCDOnline@state.nm.us
To: Beauvais, Charles R
Subject: [EXTERNAL]The Oil Conservation Division (OCD) has approved the application, Application ID: 162944
Date: Thursday, December 1, 2022 10:54:41 AM

To whom it may concern (c/o Charles Beauvais for COG OPERATING LLC),

The OCD has approved the submitted *Internal Manual Incident File Supporting Documentation (ENV)* (IM-BNF), for incident ID (n#) nOY1823239315, with the following conditions:

- **Confirmation and side wall samples will need to be collected from the excavation.**
- **1RP-5158 closed. Please refer to incident #nOY1823239315 for all future communication.**
- **Submit a complete report through the OCD Permitting website by 3/3/2023.**

The signed IM-BNF can be found in the OCD Online: Imaging under the incident ID (n#).

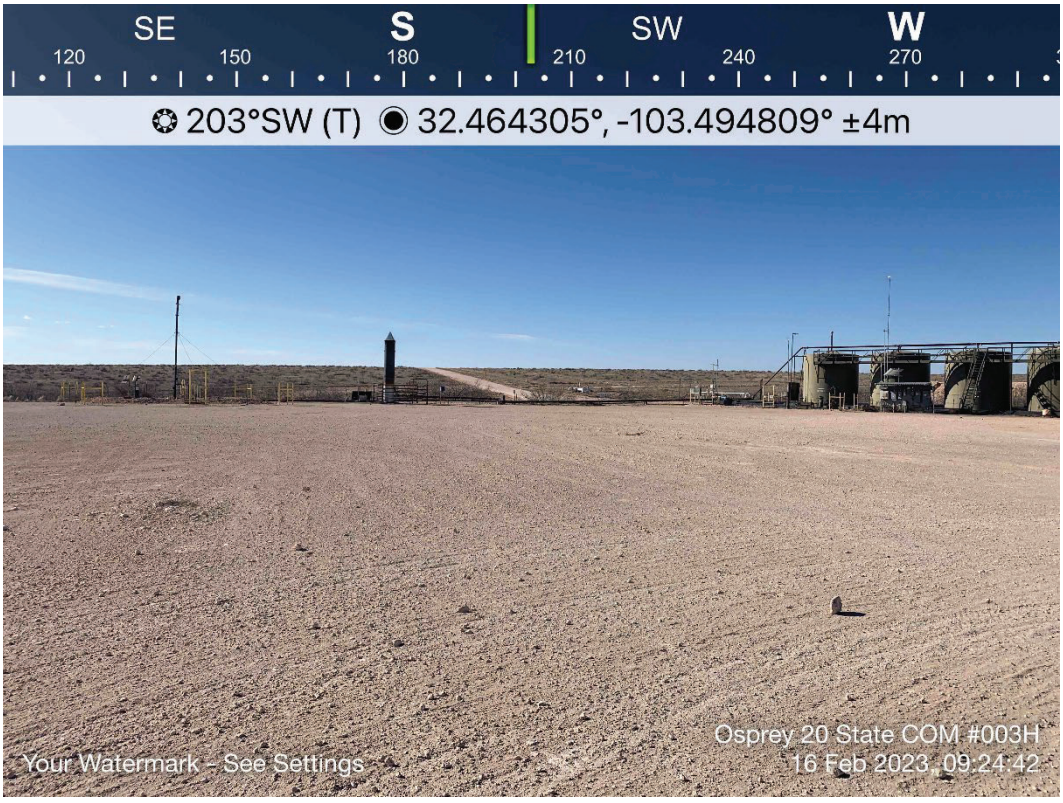
If you have any questions regarding this application, please contact me.

Thank you,
Brittany Hall
Projects Environmental Specialist - A
505-517-5333
Brittany.Hall@emnrd.nm.gov

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

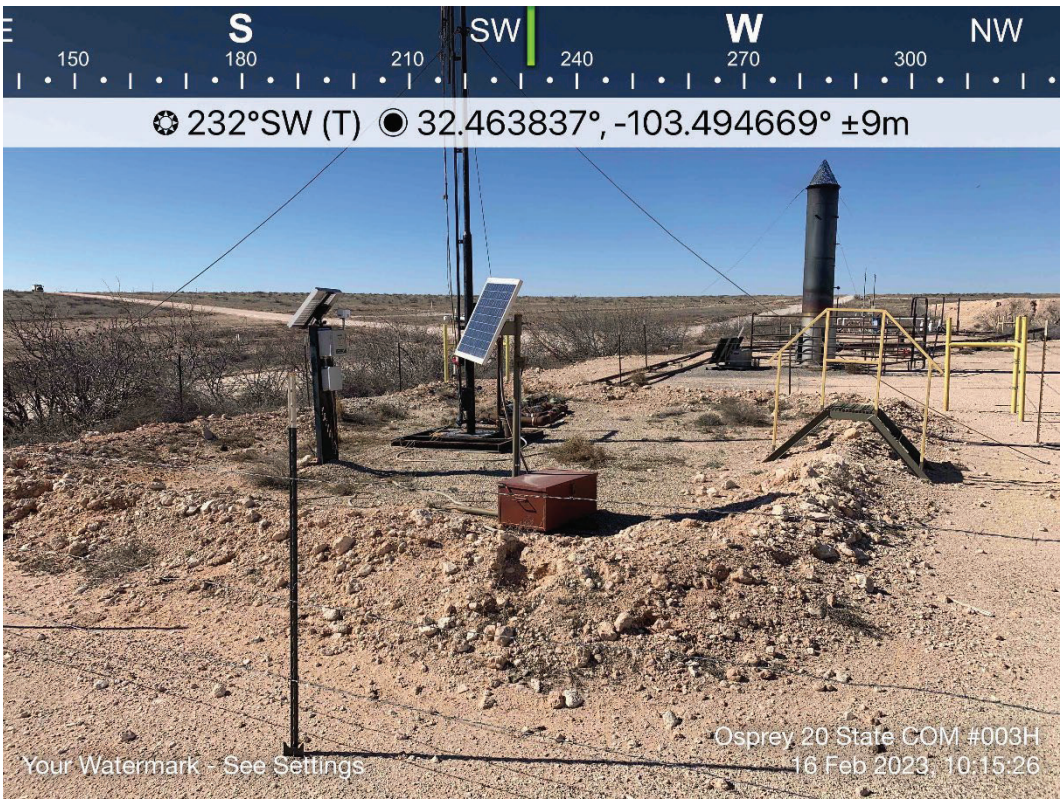
APPENDIX D
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View northeast of Site signage.	1
	SITE NAME	Osprey 20 State Com #003H	2/16/2023

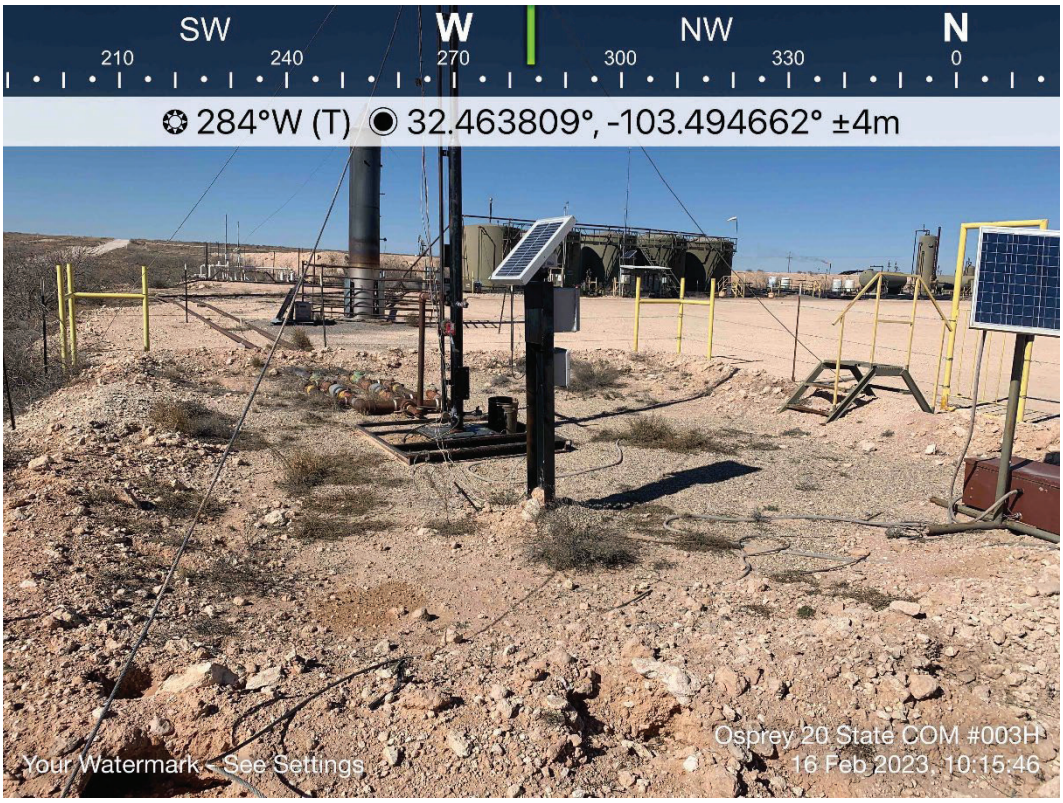


TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View south/southwest of general Site conditions. Tank batteries shown.	2
	SITE NAME	Osprey 20 State Com #003H	2/16/2023

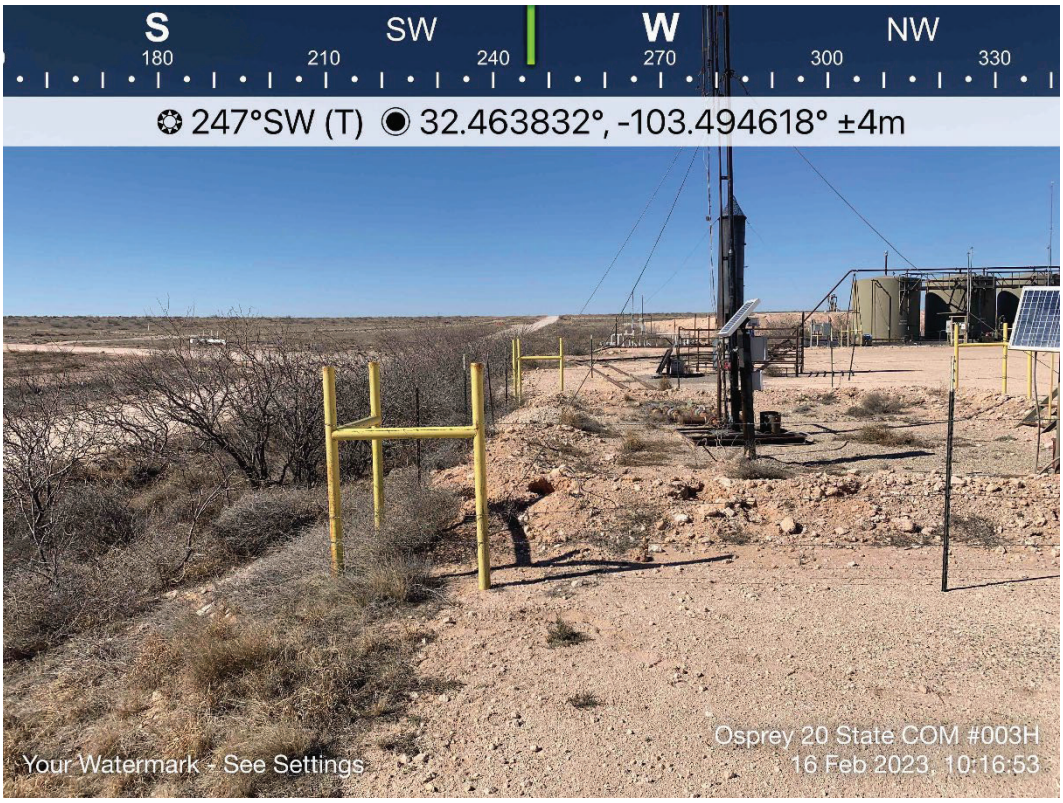
TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View west of general Site pad conditions. Pumping unit shown.	3
	SITE NAME	Osprey 20 State Com #003H	2/16/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View southwest of flare stack on Site pad. Sampling area around flare stack.	4
	SITE NAME	Osprey 20 State Com #003H	2/16/2023

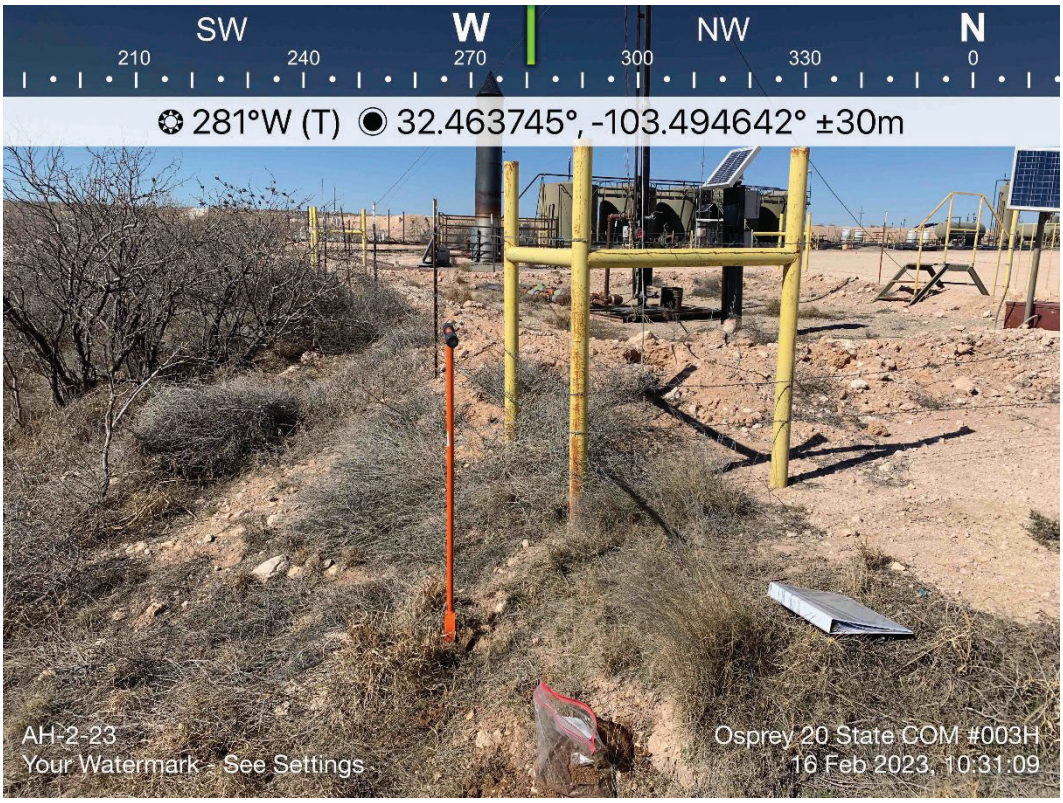


TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View west of flare stack on Site pad. Sampling area around flare stack.	5
	SITE NAME	Osprey 20 State Com #003H	2/16/2023



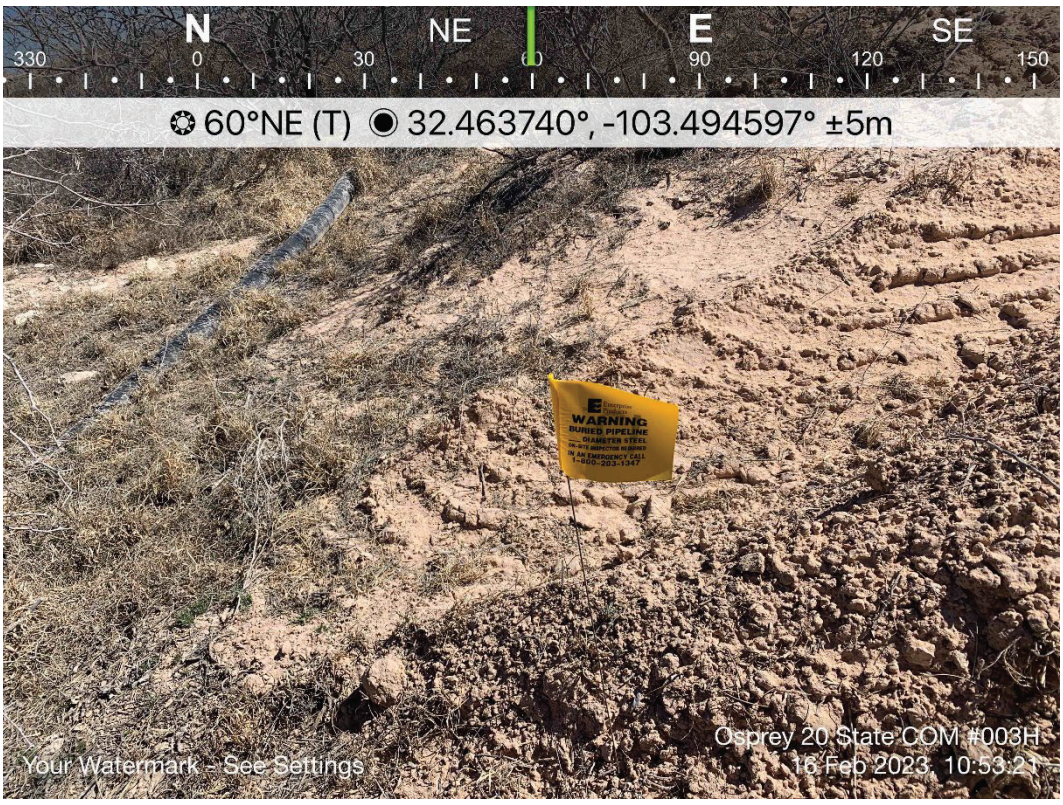
TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View west/southwest of flare stack on Site pad. Sampling area around flare stack.	6
	SITE NAME	Osprey 20 State Com #003H	2/16/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View east/southeast of AH-1-23 sampling location around flare stack.	7
	SITE NAME	Osprey 20 State Com #003H	2/16/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View west of AH-2-23 sampling location around flare stack.	8
	SITE NAME	Osprey 20 State Com #003H	2/16/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View north/northeast of AH-3-23 sampling location around flare stack.	9
	SITE NAME	Osprey 20 State Com #003H	2/16/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02988	DESCRIPTION	View northeast of subsurface pipeline and surface polylines.	10
	SITE NAME	Osprey 20 State Com #003H	2/16/2023

APPENDIX E
Laboratory Analytical Data

CARDINAL Laboratories

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

February 17, 2023

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: OSPREY 20 STATE COM #003H

Enclosed are the results of analyses for samples received by the laboratory on 02/16/23 12:30.

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
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	02/16/2023	Sampling Date:	02/16/2023
Reported:	02/17/2023	Sampling Type:	Soil
Project Name:	OSPREY 20 STATE COM #003H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02988	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 1 - 23 (0-1') (H230735-01)

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	02/17/2023	ND	2.15	108	2.00	4.63	
Toluene*	<0.050	0.050	02/17/2023	ND	2.23	111	2.00	5.81	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.21	110	2.00	5.73	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.83	114	6.00	6.00	
Total BTEX	<0.300	0.300	02/17/2023	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	**32.0**	16.0	02/16/2023	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	02/16/2023	ND	207	104	200	2.26	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	209	104	200	0.233	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane *98.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.6 %* *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
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	02/16/2023	Sampling Date:	02/16/2023
Reported:	02/17/2023	Sampling Type:	Soil
Project Name:	OSPREY 20 STATE COM #003H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02988	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 2 - 23 (0-1') (H230735-02)

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	02/17/2023	ND	2.15	108	2.00	4.63	
Toluene*	<0.050	0.050	02/17/2023	ND	2.23	111	2.00	5.81	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.21	110	2.00	5.73	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.83	114	6.00	6.00	
Total BTEX	<0.300	0.300	02/17/2023	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	02/16/2023	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	02/16/2023	ND	207	104	200	2.26	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	209	104	200	0.233	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane *96.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.7 %* *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
SAM ABBOTT
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	02/16/2023	Sampling Date:	02/16/2023
Reported:	02/17/2023	Sampling Type:	Soil
Project Name:	OSPREY 20 STATE COM #003H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02988	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

Sample ID: AH - 3 - 23 (0-1') (H230735-03)

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	02/17/2023	ND	2.15	108	2.00	4.63	
Toluene*	<0.050	0.050	02/17/2023	ND	2.23	111	2.00	5.81	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.21	110	2.00	5.73	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.83	114	6.00	6.00	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *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	02/16/2023	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	02/16/2023	ND	207	104	200	2.26	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	209	104	200	0.233	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane *95.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.6 %* *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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by 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

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall St, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: COP	**Site Manager:** Sam Abbott
Project Name: Osprey 20 State Com #003H	**Contact Info:** Sam.Abbott@tetratech.com
Project Location: (county, state) Lea County, NM	**Project #:** 212C-MD-02988
Invoice to: Christian Llull	
Receiving Laboratory: Cardinal Laboratories	**Sampler Signature:** Gabe Huerta
Comments:	

H230735

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	Asbestos			Hold
1	AH-1-23 (0-1')	2/16/2023	10:30		X				X		1		X		X												X							
2	AH-2-23 (0-1')	2/16/2023	10:45		X				X		1		X		X												X							
3	AH-3-23 (0-1')	2/16/2023	11:00		X				X		1		X		X												X							

ANALYSIS REQUEST
(Circle or Specify Method No.)

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Gabe Huerta	2-16-23	1230		2-16-23	1230
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature
3.8 c
3.2 c
C-0.6 c #113

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

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 192783

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 192783
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	3/14/2023