Attachment A

Signed C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAPP2107457594
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Kaiser-Francis Oil Company	OGRID
Contact Name Charles Lock	Contact Telephone 918-491-4337
Contact email Charlesl@kfoc.net	Incident # *(assigned by OCD)* NAPP2107457594
Contact mailing address P.O. Box 21468 Tulsa, OK 74121	

Location of Release Source

Latitude 32.332411 Longitude -103.5089495
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Bell Lake Unit North #327H	Site Type Oil Production
Date Release Discovered 3/15/2021	API# *(if applicable)* 30-025-47853

Unit Letter	Section	Township	Range	County
J	6	23S	34E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	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) Acid from a Frac Tank	Volume/Weight Released (provide units) 100 bbls	Volume/Weight Recovered (provide units) 95 bbls

Cause of Release Frac Tank cleanout cover started to leak with most of the fluid being contained inside the secondary containment with the exception of a small leak that occurred in the secondary containment allowing some to spill out to the ground. All fluid inside the secondary containment has been picked up and the fluids that leaked outside of the containment has been neutralized and is in the process of being removed.

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2107457594
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Spill was over 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? An NOR was filed.	

Initial Response

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

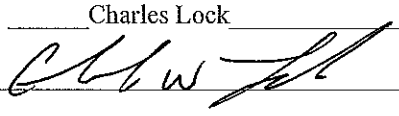
☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been 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: Charles Lock Title: EH&S Manager

Signature:  Date: 7-27-21

email: charlesl@kfoc.net Telephone: 918-491-4337

OCD Only

Received by: Date:

Incident ID	NAPP2107457594
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?	200 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2107457594
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 Lock Title: EH&S Manager

Signature: [signature] Date: 8-2-2021

email: Charles1@KFOC.net Telephone: 918-491-4337

OCD Only

Received by: Ramona Marcus Date: 8/11/2021

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2107457594
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 Lock Title: EH&S Manager

Signature: Charles Lock Date: 8-2-2021

email: Charles1@KFOC.net Telephone: 918-491-4337

OCD Only

Received by: Ramona Marcus Date: 8/11/2021

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: Chad Hensley Date: 09/02/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

Attachment D

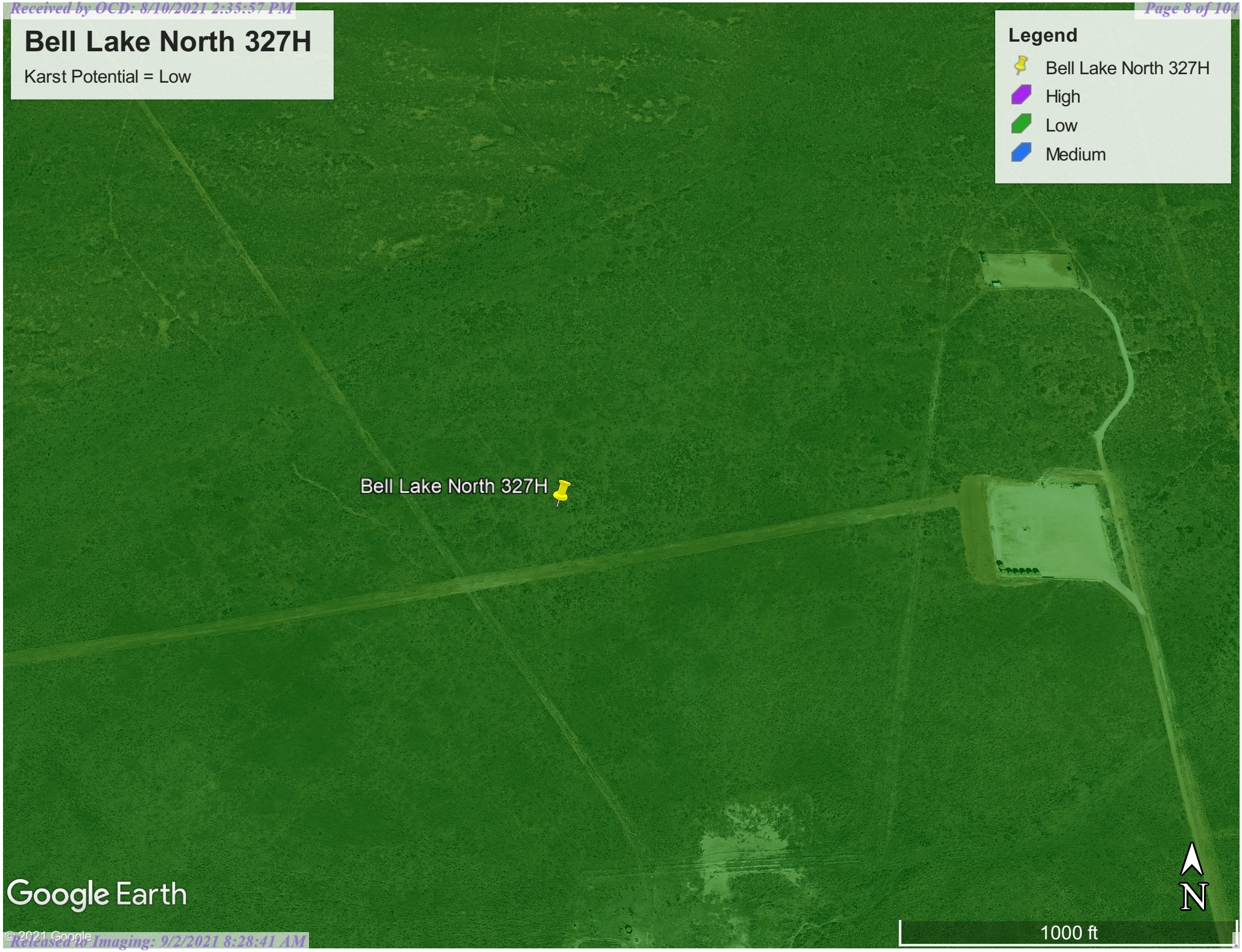
Karst Map

Bell Lake North 327H

Karst Potential = Low

Legend

- Bell Lake North 327H
- High
- Low
- Medium

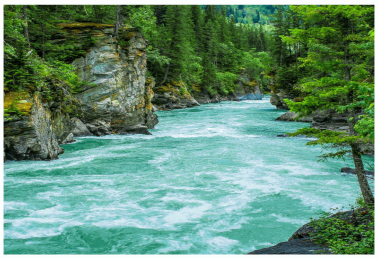


Attachment E

Envirotech, Inc. Laboratory Analysis Reports

Report to:

Ashley Giovengo



5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Kaiser Francis Oil Company

Project Name:	NBL Pad 9 03.15.2021 Spill
Work Order:	E103080
Job Number:	21022-0001
Received:	3/26/2021

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
4/12/21

Date Reported: 4/12/21

Ashley Giovengo
1224 Standpipe Rd
Carlsbad, NM 88220

Project Name: NBL Pad 9 03.15.2021 Spill
Workorder: E103080
Date Received: 3/26/2021 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/26/2021 10:00:00AM, under the Project Name: NBL Pad 9 03.15.2021 Spill.

The analytical test results summarized in this report with the Project Name: NBL Pad 9 03.15.2021 Spill apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Office:

Lynn Estes
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
lestes@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Bell Lake North 327H
Incident ID: NAPP2107457594

BH02 Core Samples

BH03 Core Samples - (Off-Pad - East Side)

Attachment C

Closure Criteria Research

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	Twns	Rng	X	Y
NA	CP 01502 POD1	4	3	3	05	23S	34E	641316	3577635

Driller License: 1626 **Driller Company:** TAYLOR, ROY ALLEN
Driller Name: TAYLOR, ROY A.

Drill Start Date: 08/10/2017 **Drill Finish Date:** 08/19/2017 **Plug Date:**
Log File Date: 09/06/2017 **PCW Rcv Date:** 02/07/2019 **Source:** Shallow
Pump Type: SUBMER **Pipe Discharge Size:** 3 **Estimated Yield:** 100 GPM
Casing Size: 10.00 **Depth Well:** 648 feet **Depth Water:** 200 feet

Water Bearing Stratifications:

Top	Bottom	Description
17	207	Sandstone/Gravel/Conglomerate
219	257	Sandstone/Gravel/Conglomerate
261	375	Sandstone/Gravel/Conglomerate
630	646	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
225	648

Meter Number: 17821 **Meter Make:** TURBINES INC
Meter Serial Number: 1645755 **Meter Multiplier:** 1.0000
Number of Dials: 7 **Meter Type:** Diversion
Unit of Measure: Barrels 42 gal. **Return Flow Percent:**
Usage Multiplier: **Reading Frequency:** Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
11/01/2018	2018	803307	A	RPT		0	
06/01/2020	2020	1767143	A	RPT		124.232	
07/01/2020	2020	1767143	A	ca		0	
09/01/2020	2020	1806080	A	RPT	This is not an approved meter	5.019	
10/01/2020	2020	1808538	A	RPT		0.317	
12/01/2020	2020	1823042	A	RPT		1.869	
01/01/2021	2020	1832918	A	RPT		1.273	
02/01/2021	2021	1832918	A	RPT		0	
03/01/2021	2021	1846831	A	RPT		1.793	
06/01/2021	2021	1911738	A	ad		8.366	

****YTD Meter Amounts:** **Year** **Amount**

**YTD Meter Amounts:	Year	Amount
	2018	0
	2020	132.710
	2021	10.159

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 01130 POD1	CP	LE	2	1	2	07	23S	34E	640662	3577558	722	27		
CP 01130 POD2	CP	LE	2	1	2	07	23S	34E	640674	3577549	735	27		
CP 01502 POD1	CP	LE	4	3	3	05	23S	34E	641316	3577635	1088	648	200	448
CP 00872 POD1	CP	LE	1	1	1	08	23S	34E	641225	3577504*	1096	494	305	189
CP 01075 POD1	CP	LE	1	1	1	08	23S	34E	641278	3577525	1122	430	20	410
CP 01502 POD2	CP	LE	4	3	3	05	23S	34E	642074	3577676	1757	680	300	380
CP 00556 POD1	CP	LE	4	4	3	08	23S	34E	641762	3576206	2439	497	255	242
CP 01622 POD1	CP	LE	1	3	3	04	23S	34E	642830	3577872	2449	575	285	290
CP 01829 POD1	CP	LE	4	4	2	32	22S	34E	642559	3580172	2895	1410	1150	260
CP 01705 POD1	CP	LE	4	4	2	32	22S	34E	642588	3580179	2921	700	305	395
CP 01706 POD1	CP	LE	4	4	2	32	22S	34E	642603	3580185	2937	340	282	58
CP 01730 POD1	CP	LE	2	2	1	16	23S	34E	643549	3575824	3959	594	200	394
CP 01760 POD1	CP	LE	3	1	2	16	23S	34E	643627	3575897	3979	767	290	477
C 04353 POD1	CUB	ED	4	2	2	24	23S	33E	639474	3574098	4240	603	330	273
C 03582 POD1	C	LE	4	1	1	14	23S	33E	636583	3575666	4606	590		
CP 01803 POD1	CP	LE	1	1	1	34	22S	34E	644357	3580786	4702	240	180	60
CP 01826 POD1	CP	LE	1	1	1	34	22S	34E	644379	3580778	4716	698	180	518
CP 01740 POD1	CP	LE	1	1	1	34	22S	34E	644402	3580765	4728	600	560	40

Average Depth to Water: **322 feet**

Minimum Depth: **20 feet**

Maximum Depth: **1150 feet**

Record Count: 18

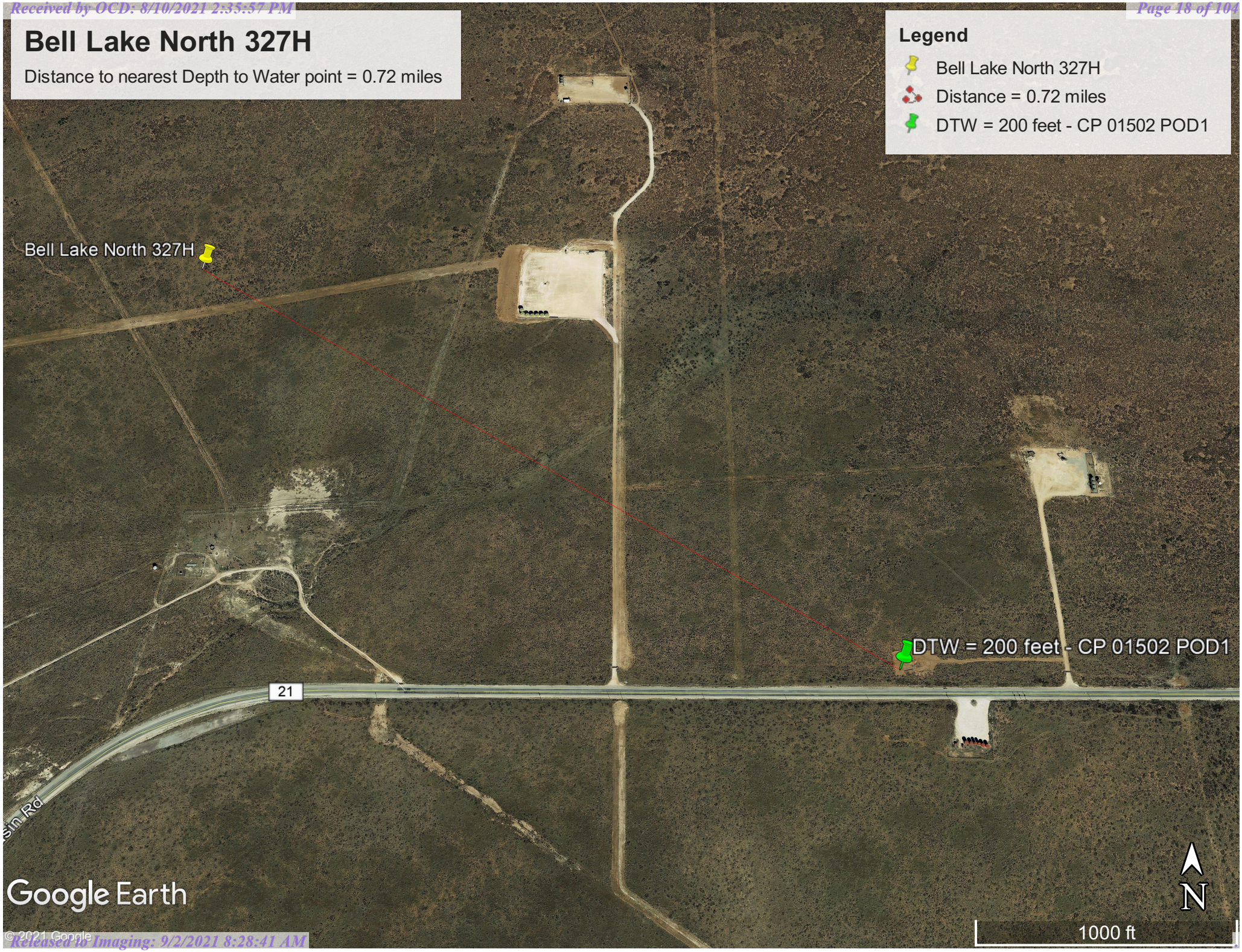
UTMNAD83 Radius Search (in meters):

Easting (X): 640407.1 **Northing (Y):** 3578234.72 **Radius:** 5000

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

Bell Lake North 327H

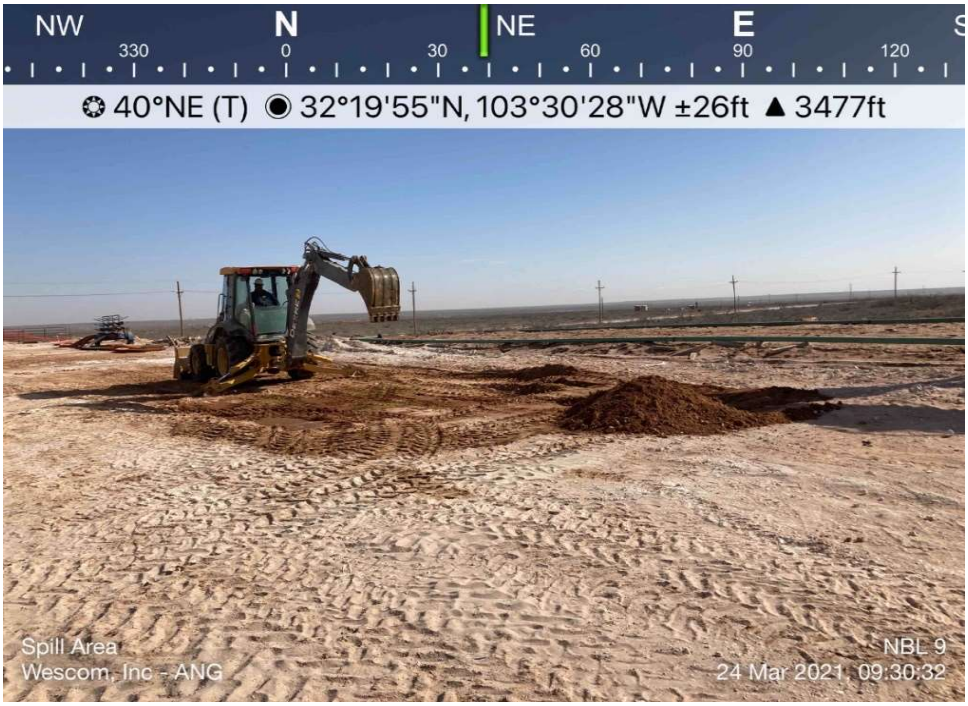
Distance to nearest Depth to Water point = 0.72 miles



Attachment B

Site Photos

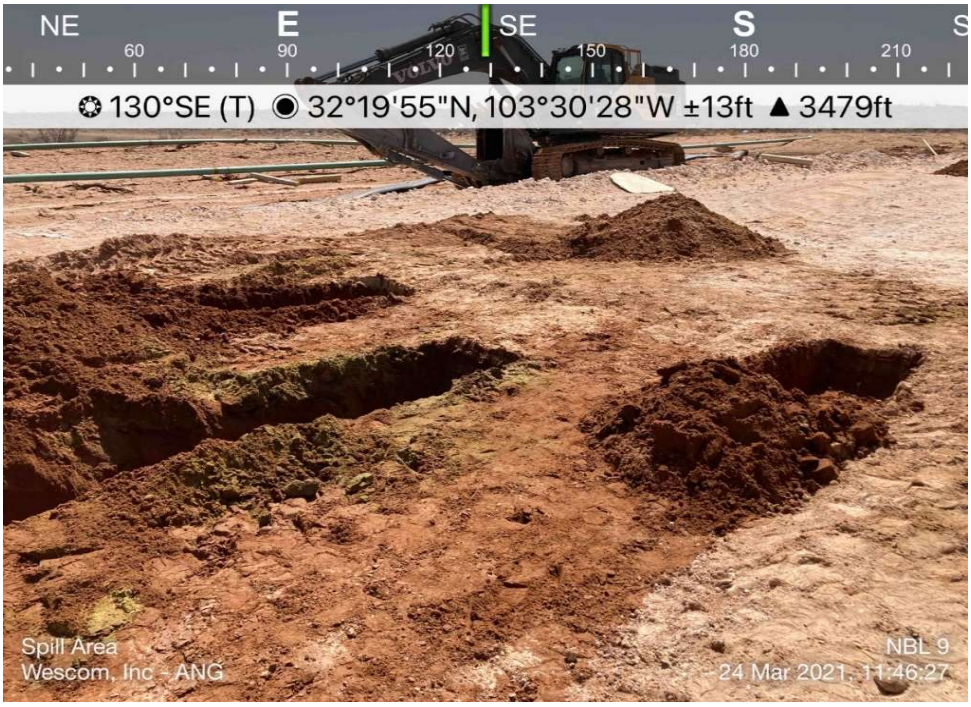
Bell Lake North 327H
Incident ID: NAPP2107457594



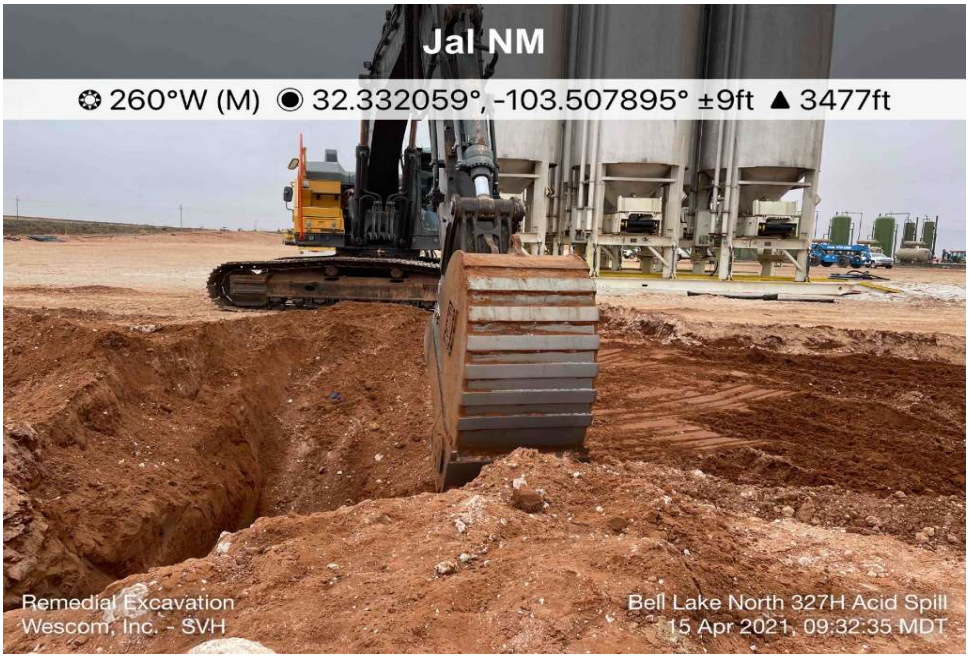
Spill Area

Vertical Delineation

Bell Lake North 327H
Incident ID: NAPP2107457594



Vertical Delineation



Site Excavation

Bell Lake North 327H
Incident ID: NAPP2107457594

Confirmation Sampling - North Side of Spill

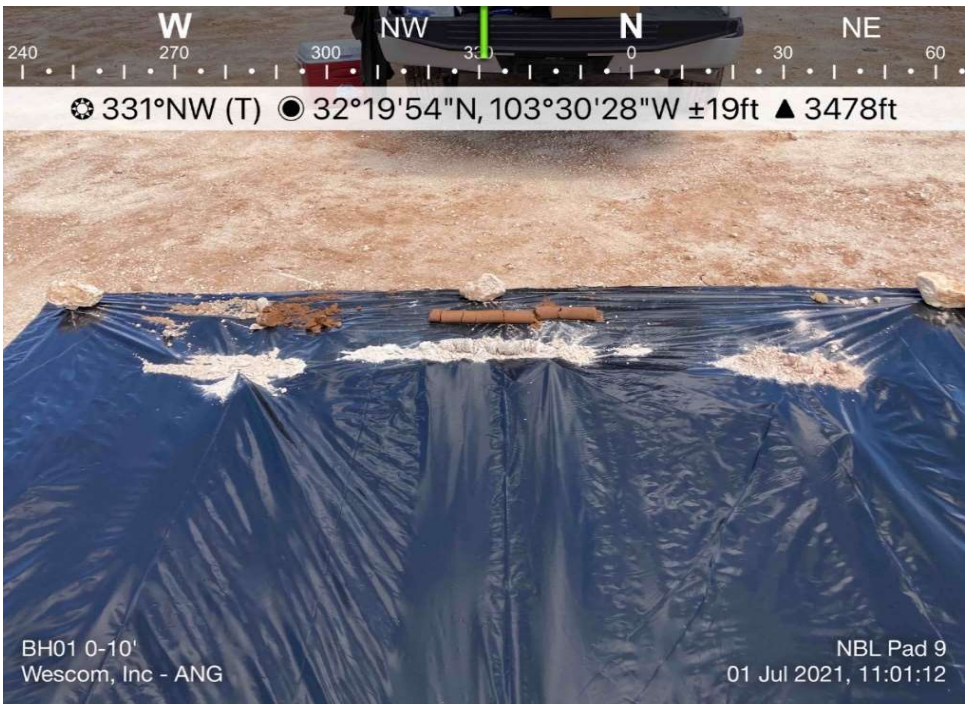
Confirmation Sampling- West Side of Spill

Bell Lake North 327H
Incident ID: NAPP2107457594

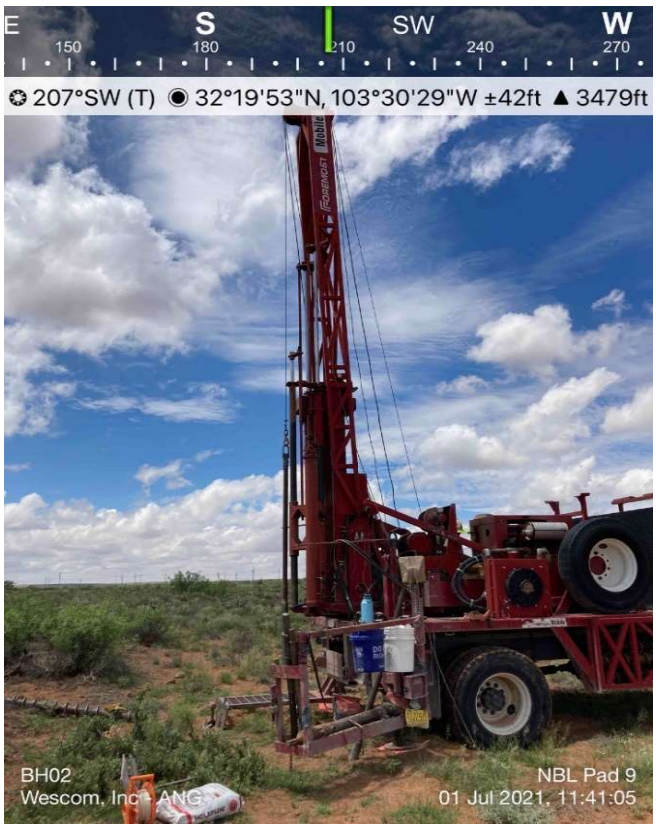
Confirmation Sampling- East Side of Spill

Borehole Drilling BH01 (On-Pad)

Bell Lake North 327H
Incident ID: NAPP2107457594



BH01 Core Samples

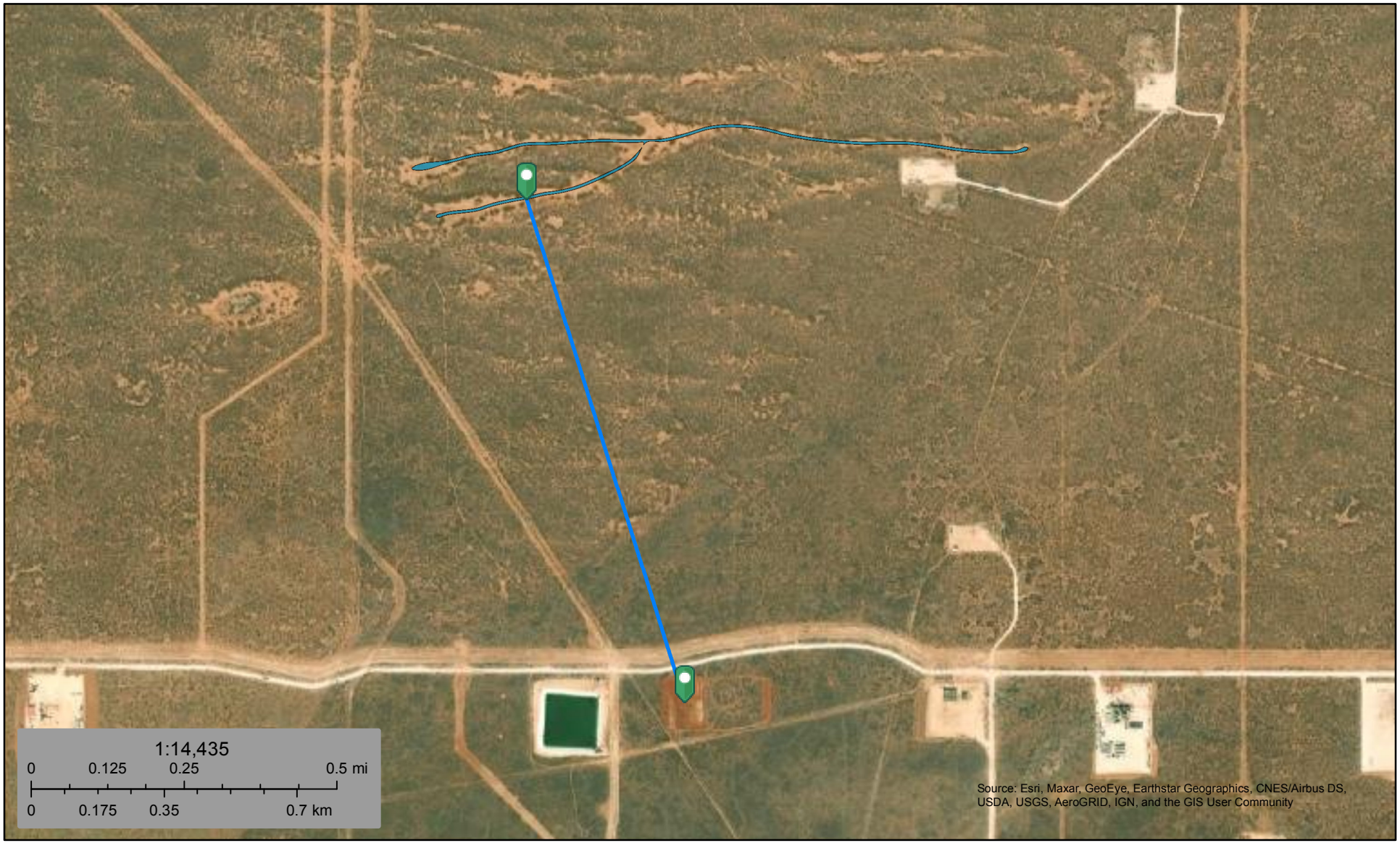


Borehole Drilling BH02 (Off-Pad - South Side)

U.S. Fish and Wildlife Service

National Wetlands Inventory

Bell Lake North 327H-Riverine 3,838.7 ft



July 15, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service

National Wetlands Inventory

Bell Lake North 327H-FW Pond 7,514.8 ft

July 15, 2021

Wetlands

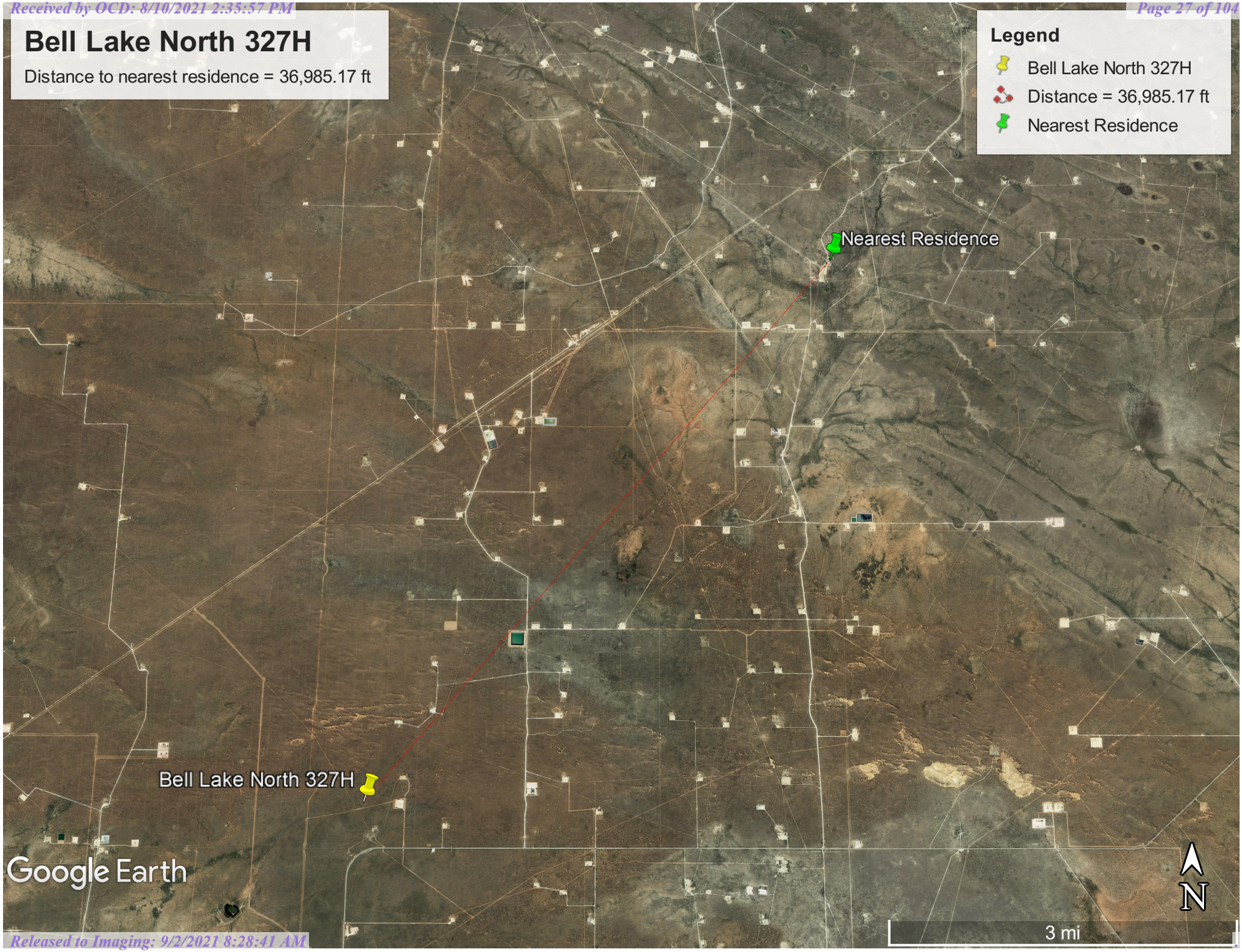
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Bell Lake North 327H

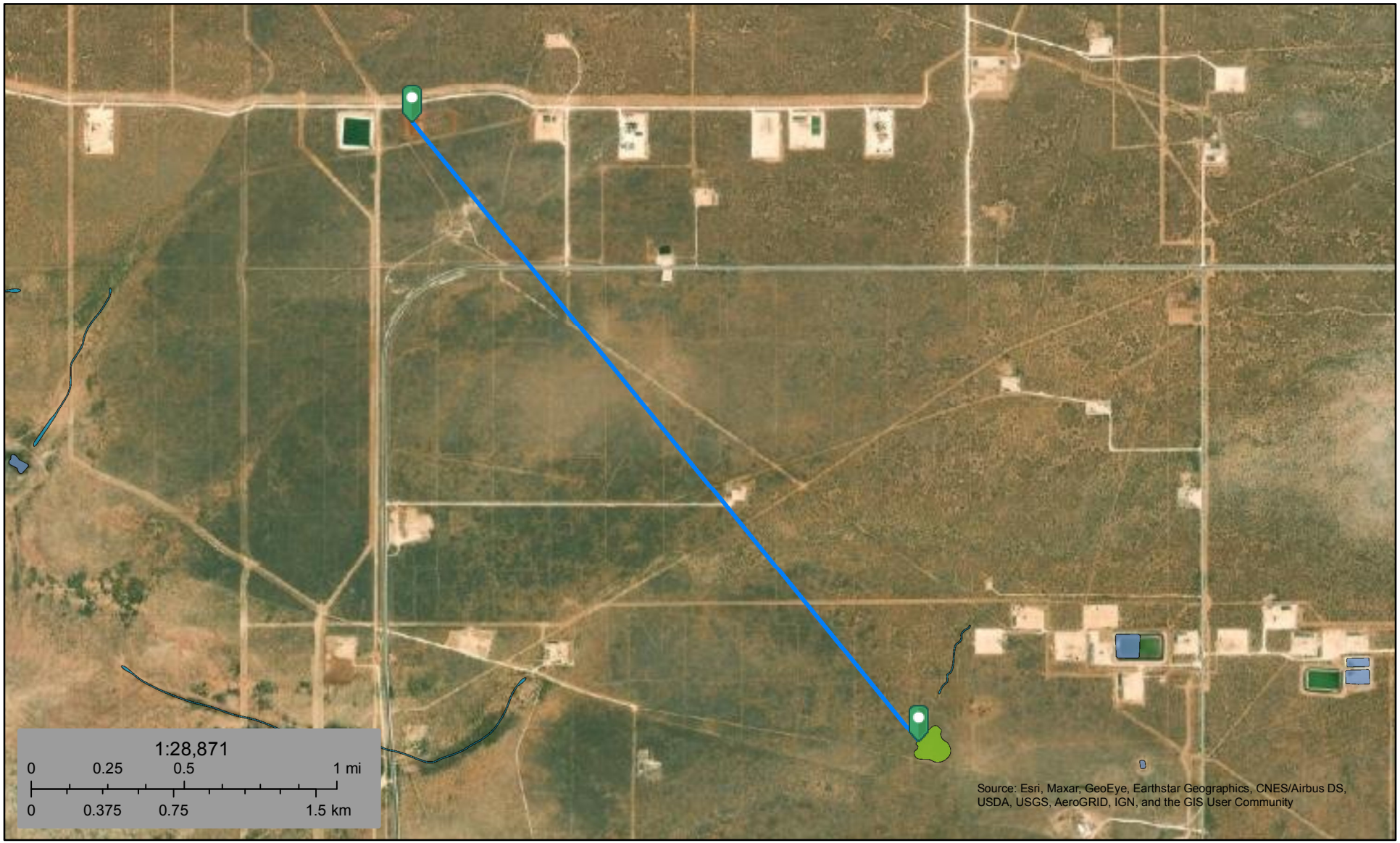
Distance to nearest residence = 36,985.17 ft



U.S. Fish and Wildlife Service

National Wetlands Inventory

Bell Lake North 327H-Wetland 11,672.4 ft



July 15, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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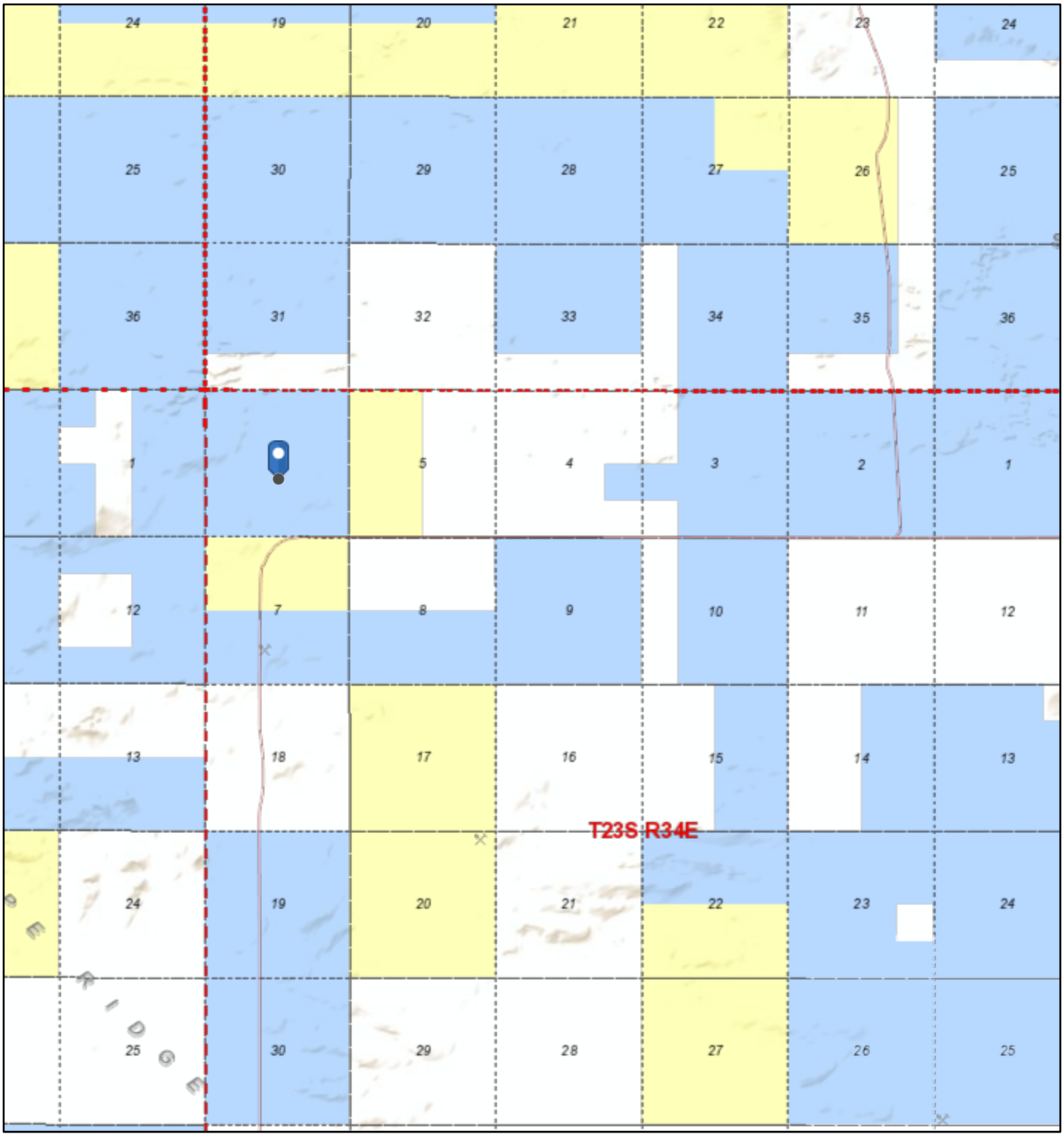
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines near Bell Lake North 327H



7/15/2021, 11:13:13 AM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Township / Range

Sections

Land Ownership

Bureau of Land Management

Bureau of Reclamation

Department of Agriculture

Department of Defense

Department of Energy

National Park Service

Private Land

State Game and Fish

State Land

State Parks

Tribal

U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

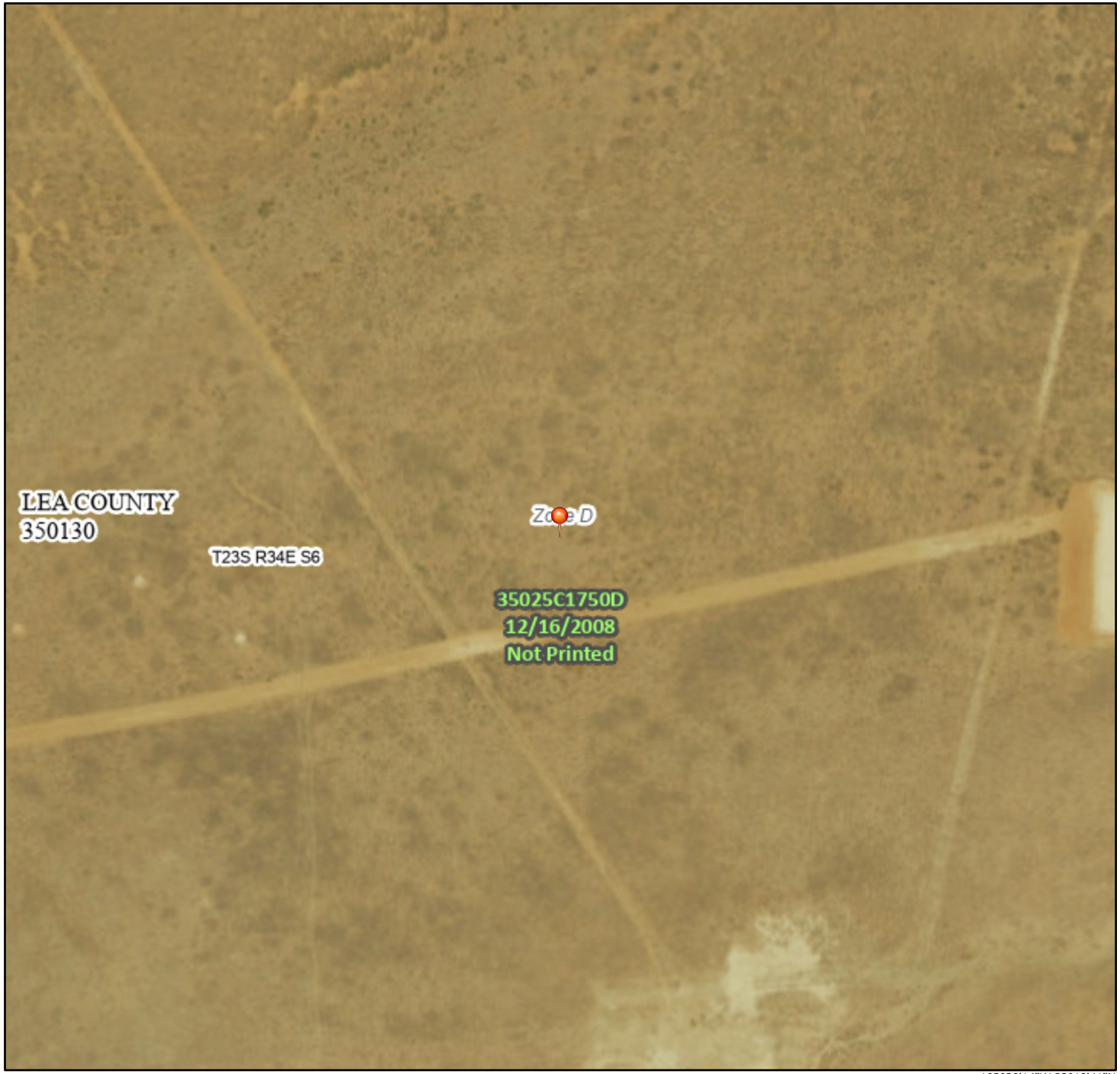
EMNRD MMD GIS Coordinator

New Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)

National Flood Hazard Layer FIRMette

FEMA

103°30'51"W 32°20'11"N



103°30'14"W 32°19'41"N

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

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/15/2021 at 12:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Sample Summary

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	04/12/21 16:33

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01-1'	E103080-01A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.
SS02-1'	E103080-02A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.
SS03-1'	E103080-03A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.
SS04-1'	E103080-04A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.
SS05-4'	E103080-05A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.
BG01-1'	E103080-06A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.
BG01-2'	E103080-07A	Soil	03/24/21	03/26/21	Glass Jar, 4 oz.

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

SS01-1'

E103080-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**6.86**		1	03/29/21	03/29/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	**8070**	100	5	03/30/21	03/30/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

SS02-1'

E103080-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**7.25**		1	03/29/21	03/29/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	**149**	20.0	1	03/30/21	03/30/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

SS03-1'

E103080-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**8.06**		1	03/29/21	03/29/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	ND	20.0	1	03/30/21	03/30/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

SS04-1'

E103080-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**7.82**		1	03/29/21	03/29/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	**31.3**	20.0	1	03/30/21	03/30/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

SS05-4'

E103080-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**7.28**		1	03/29/21	03/29/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	**2220**	20.0	1	03/30/21	03/30/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

BG01-1'

E103080-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**7.23**		1	03/29/21	03/29/21	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2116005
Arsenic	**1.19**	0.500	1	04/12/21	04/12/21	
Barium	**31.2**	6.25	1	04/12/21	04/12/21	
Cadmium	ND	0.250	1	04/12/21	04/12/21	
Chromium	**7.91**	0.500	1	04/12/21	04/12/21	
Lead	**2.81**	0.250	1	04/12/21	04/12/21	
Selenium	ND	1.25	1	04/12/21	04/12/21	
Silver	ND	0.250	1	04/12/21	04/12/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	ND	20.0	1	03/30/21	03/30/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2115034
Mercury	ND	20.0	1	04/09/21	04/09/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

BG01-2'

E103080-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2114003
pH @25°C	**7.83**		1	03/29/21	03/29/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2114015
Chloride	ND	20.0	1	03/30/21	03/30/21	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

Wet Chemistry by EPA 9045D

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	pH Units	pH Units	pH Units	pH Units	%	%	%	%	
LCS (2114003-BS1)									Prepared: 03/29/21 Analyzed: 03/29/21
pH	7.97		8.00		99.6	98.75-101.25			
Duplicate (2114003-DUP1)				**Source: E103081-01**					Prepared: 03/29/21 Analyzed: 03/29/21
pH	7.55			7.50			0.664	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

Total Metals by EPA 6010C

Analyst: AC

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2116005-BLK1)									Prepared: 04/12/21 Analyzed: 04/12/21
Arsenic	ND	0.500							
Barium	ND	6.25							
Cadmium	ND	0.250							
Chromium	ND	0.500							
Lead	ND	0.250							
Selenium	ND	1.25							
Silver	ND	0.250							
LCS (2116005-BS1)									Prepared: 04/12/21 Analyzed: 04/12/21
Arsenic	12.9	0.500	12.5		103	80-120			
Barium	312	6.25	313		99.7	80-120			
Cadmium	6.64	0.250	6.25		106	80-120			
Chromium	26.0	0.500	25.0		104	80-120			
Lead	6.86	0.250	6.25		110	80-120			
Selenium	33.1	1.25	31.3		106	80-120			
Silver	2.59	0.250	2.50		103	80-120			
LCS Dup (2116005-BSD1)									Prepared: 04/12/21 Analyzed: 04/12/21
Arsenic	12.5	0.500	12.5		99.8	80-120	3.06	20	
Barium	316	6.25	313		101	80-120	1.36	20	
Cadmium	6.40	0.250	6.25		102	80-120	3.72	20	
Chromium	26.4	0.500	25.0		106	80-120	1.53	20	
Lead	6.58	0.250	6.25		105	80-120	4.09	20	
Selenium	31.9	1.25	31.3		102	80-120	3.85	20	
Silver	2.63	0.250	2.50		105	80-120	1.54	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2114015-BLK1)									Prepared: 03/30/21 Analyzed: 03/30/21
Chloride	ND	20.0							
LCS (2114015-BS1)									Prepared: 03/30/21 Analyzed: 03/31/21
Chloride	244	20.0	250		97.5	90-110			
Matrix Spike (2114015-MS1)				**Source: E103080-01**					Prepared: 03/30/21 Analyzed: 03/30/21
Chloride	9020	100	250	8070	379	80-120			M5
Matrix Spike Dup (2114015-MSD1)				**Source: E103080-01**					Prepared: 03/30/21 Analyzed: 03/30/21
Chloride	9090	100	250	8070	408	80-120	0.812	20	M5

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:33:06PM

Total Mercury by EPA 7471B

Analyst: AC

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	
Blank (2115034-BLK1)									Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	ND	20.0							
LCS (2115034-BS1)									Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	167	20.0	160		105	80-120			
Matrix Spike (2115034-MS1)				**Source: E103080-06**					Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	162	20.0	160	ND	101	80-120			
Matrix Spike Dup (2115034-MSD1)				**Source: E103080-06**					Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	162	20.0	160	ND	101	80-120	0.0699	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	04/12/21 16:33

M5	The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The accociated LCS spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client:	Kaiser Francis Oil Company
Project:	NBL Pad 9 03.15.2021
Project Manager:	Ashley Giovengo & Bill
Address:	1224 Standpipe Rd
City, State, Zip	Carlsbad, NM 88220
Phone:	505-382-1211
Email:	ashley.giovengo@wescominc.com
Report due by:	

Bill To

Attention:	Wescom Inc.
Address:	1224 Standpipe Rd
City, State, Zip	Carlsbad, NM 88220
Phone:	505-382-1211
Email:	ashley.giovengo@wescominc.com

Lab Use Only

Lab WO#	Job Number
E103080	

TAT

1D	2D	3D	Standard
			X

EPA Program

CWA	SDWA	RCRA

State

NM	CO	UT	AZ	TX	
X					

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM	BGDOC TX			Remarks
						Analysis and Method												
11:36am	3/24/21	S	1;ar	SS01-1'	1									X				pH test
11:40am				SS02-1'	2									X				pH test
11:43am				SS03-1'	3									X				pH test
11:45am				SS04-1'	4									X				pH test
11:42am				SS05-4'	5									X				pH test
1:12pm				BG01-1'	6									X				pH test
1:13pm				BG01-2'	7									X				pH test

Additional Instructions: Please cc shar.harvester@wescominc.com
AVG = Ashley Giovengo

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	03/25/21	11:00am		3.25.21	1100
	3.25.21	1640		3/26/21	10:00

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 3/26/2021 11:35:20AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	kaiser Francis Oil Company	Date Received:	03/26/21 10:00	Work Order ID:	E103080
Phone:	(505) 382-1211	Date Logged In:	03/26/21 11:10	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	04/01/21 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fedex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

(pH test) listed on samples #1-7 on remarks on COC.
pH analysis will be added to all soil samples per Ashley G.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Project Information | Chain of Custody | Page 1 of 1

Client:	Kaiser Francis Oil Company
Project:	NBL Pad 9 03.15.2021 Spill
Project Manager:	Ashley Giovengo
Address:	1224 Standpipe Rd
City, State, Zip	Carlsbad, NM 88220
Phone:	505-382-1211
Email:	ashley.giovengo@wescominc.com
Report due by:	

Bill To

Attention:	Wescom Inc.
Address:	1224 Standpipe Rd
City, State, Zip	Carlsbad, NM 88220
Phone:	505-382-1211
Email:	ashley.giovengo@wescominc.com

Lab Use Only

Lab WO#	Job Number
E103080	

TAT

1D	2D	3D	Standard
			X

EPA Program

CWA	SDWA	RCRA

State

NM	CO	UT	AZ	TX
X				

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	PH	BGDOC NM	BGDOC TX	Remarks
1:36am	3/24/21	S	1;jar	SS01-1'	1								X		pH test
11:40am				SS02-1'	2								X		pH test
11:43am				SS03-1'	3								X		pH test
11:45am				SS04-1'	4								X		pH test
11:42am				SS05-4'	5								X		pH test
1:12pm				BG01-1'	6								X		pH test
1:13pm				BG01-2'	7								X		pH test
															AM 3/29/21 per Ashley G.

Additional Instructions: Please cc shar.harvester@wescominc.com
AVG = Ashley Giovengo

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	03/25/21	11:00am		3.25.21	1100
	3.25.21	1640		3/26/21	10:00

Lab Use Only
Received on ice: (Y) N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report. ACE 3.264

envirotech

Project Information | Chain of Custody | Page 1 of 1

Client: Kaiser Francis Oil Company
Project: NBL Pad 9 03.15.2021 Spill
Project Manager: Ashley Giovengo
Address: 1224 Standpipe Rd
City, State, Zip Carlsbad, NM 88220
Phone: 505-382-1211
Email: ashley.giovengo@wescominc.com
Report due by:

Bill To
Attention: Wescom Inc.
Address: 1224 Standpipe Rd
City, State, Zip Carlsbad, NM 88220
Phone: 505-382-1211
Email: ashley.giovengo@wescominc.com

Lab Use Only
Lab WO# E103080 | Job Number 21022-0001

TAT: 1D | 2D | 3D | Standard: X

EPA Program: CWA | SDWA | RCRA

State: NM: X | CO | UT | AZ | TX

Analysis and Method: DRO/ORO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 300.0 | PH | BGDOC NM | BGDOC TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Remarks
11:36am	3/24/21	S	1;jar	SS01-1'	1	pH test
11:40am				SS02-1'	2	pH test
11:43am				SS03-1'	3	pH test
11:45am				SS04-1'	4	pH test
11:42am				SS05-4'	5	pH test
1:12pm				BG01-1'	6	pH test
1:13pm				BG01-2'	7	pH test

Metals 6010: X (BG01-1')
Chloride 300.0: AM 4/8/21 per shar.harvester, 2day Rush on added analysis
PH: AM 3/29/21 per Ashley G.

Additional Instructions: Please cc shar.harvester@wescominc.com
AVG = Ashley Giovengo
PO: 23814

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	03/25/21	11:00am		3.25.21	1100
	3-25-21	1640		3/26/21	10:00

Lab Use Only
Received on ice: (Y) N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report. 40CFR3.264

envirotech

Envirotech Analytical Laboratory

Printed: 4/8/2021 4:39:36PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Kaiser Francis Oil Company	Date Received:	03/26/21 10:00	Work Order ID:	E103080
Phone:	(505) 382-1211	Date Logged In:	03/26/21 11:10	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	04/12/21 17:00 (11 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fedex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

(pH test) listed on samples #1-7 on remarks on COC.
pH analysis will be added to all soil samples per Ashley G.
Total RCRA 8 Metals analysis were added to sample #6 BG01-1 per Shar Harvester 4/8/21

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Ashley Giovengo

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Kaiser Francis Oil Company

Project Name:	NBL Pad 9 03.15.2021 Spill
Work Order:	E104014
Job Number:	21022-0001
Received:	4/7/2021

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
4/12/21

Date Reported: 4/12/21

Ashley Giovengo
1224 Standpipe Rd
Carlsbad, NM 88220

Project Name: NBL Pad 9 03.15.2021 Spill
Workorder: E104014
Date Received: 4/7/2021 10:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/7/2021 10:30:00AM, under the Project Name: NBL Pad 9 03.15.2021 Spill.

The analytical test results summarized in this report with the Project Name: NBL Pad 9 03.15.2021 Spill apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Office:

Lynn Estes
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
lestes@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	04/12/21 16:31

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS05-6'	E104014-01A	Soil	04/05/21	04/07/21	Glass Jar, 4 oz.
SS05-9'	E104014-02A	Soil	04/05/21	04/07/21	Glass Jar, 4 oz.
SS18-0.5'	E104014-03A	Soil	04/05/21	04/07/21	Glass Jar, 4 oz.
SS20-0.5'	E104014-04A	Soil	04/05/21	04/07/21	Glass Jar, 4 oz.
SS21-0.5'	E104014-05A	Soil	04/05/21	04/07/21	Glass Jar, 4 oz.
SS25-0.5'	E104014-06A	Soil	04/05/21	04/07/21	Glass Jar, 4 oz.

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS05-6'

E104014-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2115020
pH @25°C	**6.92**		1	04/07/21	04/07/21	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Benzene	ND	0.0250	1	04/09/21	04/10/21	
Ethylbenzene	ND	0.0250	1	04/09/21	04/10/21	
Toluene	ND	0.0250	1	04/09/21	04/10/21	
o-Xylene	ND	0.0250	1	04/09/21	04/10/21	
p,m-Xylene	ND	0.0500	1	04/09/21	04/10/21	
Total Xylenes	ND	0.0250	1	04/09/21	04/10/21	
Surrogate: 4-Bromochlorobenzene-PID		*99.8 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/09/21	04/10/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*100 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HT			Batch: 2115030
Diesel Range Organics (C10-C28)	ND	25.0	1	04/09/21	04/09/21	
Oil Range Organics (C28-C35)	ND	50.0	1	04/09/21	04/09/21	
Surrogate: n-Nonane		*94.6 %*	*50-200*	*04/09/21*	*04/09/21*	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2116005
Arsenic	**1.46**	0.500	1	04/12/21	04/12/21	
Barium	**56.2**	6.25	1	04/12/21	04/12/21	
Cadmium	ND	0.250	1	04/12/21	04/12/21	
Chromium	**12.4**	0.500	1	04/12/21	04/12/21	
Lead	**4.37**	0.250	1	04/12/21	04/12/21	
Selenium	ND	1.25	1	04/12/21	04/12/21	
Silver	ND	0.250	1	04/12/21	04/12/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS05-6'

E104014-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2115015
Chloride	**179**	20.0	1	04/07/21	04/07/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2115034
Mercury	ND	20.0	1	04/09/21	04/09/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS05-9'

E104014-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2115020
pH @25°C	**8.65**		1	04/07/21	04/07/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2115015
Chloride	ND	20.0	1	04/07/21	04/07/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS18-0.5'

E104014-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2115020
pH @25°C	**8.39**		1	04/07/21	04/07/21	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Benzene	ND	0.0250	1	04/09/21	04/10/21	
Ethylbenzene	ND	0.0250	1	04/09/21	04/10/21	
Toluene	ND	0.0250	1	04/09/21	04/10/21	
o-Xylene	ND	0.0250	1	04/09/21	04/10/21	
p,m-Xylene	ND	0.0500	1	04/09/21	04/10/21	
Total Xylenes	ND	0.0250	1	04/09/21	04/10/21	
Surrogate: 4-Bromochlorobenzene-PID		*98.7 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/09/21	04/10/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*101 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HT			Batch: 2115030
Diesel Range Organics (C10-C28)	**68.7**	25.0	1	04/09/21	04/09/21	
Oil Range Organics (C28-C35)	ND	50.0	1	04/09/21	04/09/21	
Surrogate: n-Nonane		*95.6 %*	*50-200*	*04/09/21*	*04/09/21*	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2116005
Arsenic	**3.05**	2.50	5	04/12/21	04/12/21	
Barium	**446**	31.3	5	04/12/21	04/12/21	
Cadmium	ND	1.25	5	04/12/21	04/12/21	
Chromium	**5.10**	2.50	5	04/12/21	04/12/21	
Lead	ND	1.25	5	04/12/21	04/12/21	
Selenium	ND	6.25	5	04/12/21	04/12/21	
Silver	ND	1.25	5	04/12/21	04/12/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS18-0.5'

E104014-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2115015
Chloride	**232**	20.0	1	04/07/21	04/07/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2115034
Mercury	ND	20.0	1	04/09/21	04/09/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS20-0.5'

E104014-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2115020
pH @25°C	**8.25**		1	04/07/21	04/07/21	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Benzene	ND	0.0250	1	04/09/21	04/10/21	
Ethylbenzene	ND	0.0250	1	04/09/21	04/10/21	
Toluene	ND	0.0250	1	04/09/21	04/10/21	
o-Xylene	ND	0.0250	1	04/09/21	04/10/21	
p,m-Xylene	ND	0.0500	1	04/09/21	04/10/21	
Total Xylenes	ND	0.0250	1	04/09/21	04/10/21	
Surrogate: 4-Bromochlorobenzene-PID		*97.5 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/09/21	04/10/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*99.1 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HT			Batch: 2115030
Diesel Range Organics (C10-C28)	**32.1**	25.0	1	04/09/21	04/09/21	
Oil Range Organics (C28-C35)	ND	50.0	1	04/09/21	04/09/21	
Surrogate: n-Nonane		*92.5 %*	*50-200*	*04/09/21*	*04/09/21*	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2116005
Arsenic	**1.21**	0.500	1	04/12/21	04/12/21	
Barium	**57.2**	6.25	1	04/12/21	04/12/21	
Cadmium	ND	0.250	1	04/12/21	04/12/21	
Chromium	**6.69**	0.500	1	04/12/21	04/12/21	
Lead	**2.46**	0.250	1	04/12/21	04/12/21	
Selenium	ND	1.25	1	04/12/21	04/12/21	
Silver	ND	0.250	1	04/12/21	04/12/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS20-0.5'

E104014-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2115015
Chloride	**66.8**	20.0	1	04/07/21	04/07/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2115034
Mercury	ND	20.0	1	04/09/21	04/09/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS21-0.5'

E104014-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2115020
pH @25°C	**8.30**		1	04/07/21	04/07/21	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Benzene	ND	0.0250	1	04/09/21	04/10/21	
Ethylbenzene	ND	0.0250	1	04/09/21	04/10/21	
Toluene	ND	0.0250	1	04/09/21	04/10/21	
o-Xylene	ND	0.0250	1	04/09/21	04/10/21	
p,m-Xylene	ND	0.0500	1	04/09/21	04/10/21	
Total Xylenes	ND	0.0250	1	04/09/21	04/10/21	
Surrogate: 4-Bromochlorobenzene-PID		*97.6 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/09/21	04/10/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*102 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HT			Batch: 2115030
Diesel Range Organics (C10-C28)	ND	25.0	1	04/09/21	04/09/21	
Oil Range Organics (C28-C35)	ND	50.0	1	04/09/21	04/09/21	
Surrogate: n-Nonane		*96.5 %*	*50-200*	*04/09/21*	*04/09/21*	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2116005
Arsenic	**3.79**	2.50	5	04/12/21	04/12/21	
Barium	**621**	31.3	5	04/12/21	04/12/21	
Cadmium	ND	1.25	5	04/12/21	04/12/21	
Chromium	**3.84**	2.50	5	04/12/21	04/12/21	
Lead	ND	1.25	5	04/12/21	04/12/21	
Selenium	ND	6.25	5	04/12/21	04/12/21	
Silver	ND	1.25	5	04/12/21	04/12/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS21-0.5'

E104014-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2115015
Chloride	**322**	20.0	1	04/07/21	04/07/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2115034
Mercury	ND	20.0	1	04/09/21	04/09/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS25-0.5'

E104014-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: JL			Batch: 2115020
pH @25°C	**8.28**		1	04/07/21	04/07/21	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Benzene	ND	0.0250	1	04/09/21	04/10/21	
Ethylbenzene	ND	0.0250	1	04/09/21	04/10/21	
Toluene	ND	0.0250	1	04/09/21	04/10/21	
o-Xylene	ND	0.0250	1	04/09/21	04/10/21	
p,m-Xylene	ND	0.0500	1	04/09/21	04/10/21	
Total Xylenes	ND	0.0250	1	04/09/21	04/10/21	
Surrogate: 4-Bromochlorobenzene-PID		*97.0 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: JL			Batch: 2115029
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/09/21	04/10/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*103 %*	*70-130*	*04/09/21*	*04/10/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HT			Batch: 2115030
Diesel Range Organics (C10-C28)	**63.1**	25.0	1	04/09/21	04/09/21	
Oil Range Organics (C28-C35)	ND	50.0	1	04/09/21	04/09/21	
Surrogate: n-Nonane		*96.4 %*	*50-200*	*04/09/21*	*04/09/21*	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2116005
Arsenic	**3.16**	2.50	5	04/12/21	04/12/21	
Barium	**331**	31.3	5	04/12/21	04/12/21	
Cadmium	ND	1.25	5	04/12/21	04/12/21	
Chromium	**5.50**	2.50	5	04/12/21	04/12/21	
Lead	ND	1.25	5	04/12/21	04/12/21	
Selenium	ND	6.25	5	04/12/21	04/12/21	
Silver	ND	1.25	5	04/12/21	04/12/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

SS25-0.5'

E104014-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2115015
Chloride	**197**	20.0	1	04/07/21	04/07/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2115034
Mercury	ND	20.0	1	04/09/21	04/09/21	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Wet Chemistry by EPA 9045D

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	pH Units	pH Units	pH Units	pH Units	%	%	%	%	
LCS (2115020-BS1)							Prepared: 04/07/21 Analyzed: 04/07/21		
pH	7.94		8.00		99.3	98.75-101.25			
Duplicate (2115020-DUP1)				**Source: E104011-01**			Prepared: 04/07/21 Analyzed: 04/07/21		
pH	11.0			11.0			0.00	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Volatile Organics by EPA 8021B

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2115029-BLK1)									Prepared: 04/08/21 Analyzed: 04/09/21
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.64*		*8.00*		*95.5*	*70-130*			
LCS (2115029-BS1)									Prepared: 04/08/21 Analyzed: 04/09/21
Benzene	4.98	0.0250	5.00		99.6	70-130			
Ethylbenzene	4.85	0.0250	5.00		97.0	70-130			
Toluene	5.07	0.0250	5.00		101	70-130			
o-Xylene	5.02	0.0250	5.00		100	70-130			
p,m-Xylene	9.90	0.0500	10.0		99.0	70-130			
Total Xylenes	14.9	0.0250	15.0		99.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.73*		*8.00*		*96.6*	*70-130*			
Matrix Spike (2115029-MS1)				**Source: E104034-01**					Prepared: 04/08/21 Analyzed: 04/09/21
Benzene	4.40	0.0250	5.00	ND	88.0	54-133			
Ethylbenzene	4.32	0.0250	5.00	0.0252	85.9	61-133			
Toluene	4.47	0.0250	5.00	ND	89.3	61-130			
o-Xylene	4.58	0.0250	5.00	0.162	88.4	63-131			
p,m-Xylene	8.79	0.0500	10.0	0.0745	87.2	63-131			
Total Xylenes	13.4	0.0250	15.0	0.236	87.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*8.40*		*8.00*		*105*	*70-130*			
Matrix Spike Dup (2115029-MSD1)				**Source: E104034-01**					Prepared: 04/08/21 Analyzed: 04/09/21
Benzene	4.53	0.0250	5.00	ND	90.5	54-133	2.83	20	
Ethylbenzene	4.45	0.0250	5.00	0.0252	88.5	61-133	3.03	20	
Toluene	4.59	0.0250	5.00	ND	91.7	61-130	2.69	20	
o-Xylene	4.71	0.0250	5.00	0.162	90.9	63-131	2.71	20	
p,m-Xylene	9.06	0.0500	10.0	0.0745	89.9	63-131	3.02	20	
Total Xylenes	13.8	0.0250	15.0	0.236	90.2	63-131	2.91	20	
Surrogate: 4-Bromochlorobenzene-PID	*8.40*		*8.00*		*105*	*70-130*			

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2115029-BLK1)									Prepared: 04/08/21 Analyzed: 04/09/21
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.09*		*8.00*		*101*	*70-130*			
LCS (2115029-BS2)									Prepared: 04/08/21 Analyzed: 04/09/21
Gasoline Range Organics (C6-C10)	42.9	20.0	50.0		85.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.32*		*8.00*		*104*	*70-130*			
Matrix Spike (2115029-MS2)				**Source: E104034-01**					Prepared: 04/08/21 Analyzed: 04/09/21
Gasoline Range Organics (C6-C10)	53.2	20.0	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.04*		*8.00*		*101*	*70-130*			
Matrix Spike Dup (2115029-MSD2)				**Source: E104034-01**					Prepared: 04/08/21 Analyzed: 04/09/21
Gasoline Range Organics (C6-C10)	55.6	20.0	50.0	ND	111	70-130	4.33	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.12*		*8.00*		*102*	*70-130*			

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: HT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2115030-BLK1)									Prepared: 04/09/21 Analyzed: 04/09/21
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C35)	ND	50.0							
Surrogate: n-Nonane	*46.5*		*50.0*		*93.0*	*50-200*			
LCS (2115030-BS1)									Prepared: 04/09/21 Analyzed: 04/09/21
Diesel Range Organics (C10-C28)	503	25.0	500		101	38-132			
Surrogate: n-Nonane	*46.1*		*50.0*		*92.2*	*50-200*			
Matrix Spike (2115030-MS1)				**Source: E104009-01**					Prepared: 04/09/21 Analyzed: 04/09/21
Diesel Range Organics (C10-C28)	479	25.0	500	44.7	86.9	38-132			
Surrogate: n-Nonane	*46.7*		*50.0*		*93.4*	*50-200*			
Matrix Spike Dup (2115030-MSD1)				**Source: E104009-01**					Prepared: 04/09/21 Analyzed: 04/09/21
Diesel Range Organics (C10-C28)	516	25.0	500	44.7	94.3	38-132	7.46	20	
Surrogate: n-Nonane	*47.7*		*50.0*		*95.4*	*50-200*			

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Total Metals by EPA 6010C

Analyst: AC

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2116005-BLK1)									Prepared: 04/12/21 Analyzed: 04/12/21
Arsenic	ND	0.500							
Barium	ND	6.25							
Cadmium	ND	0.250							
Chromium	ND	0.500							
Lead	ND	0.250							
Selenium	ND	1.25							
Silver	ND	0.250							
LCS (2116005-BS1)									Prepared: 04/12/21 Analyzed: 04/12/21
Arsenic	12.9	0.500	12.5		103	80-120			
Barium	312	6.25	313		99.7	80-120			
Cadmium	6.64	0.250	6.25		106	80-120			
Chromium	26.0	0.500	25.0		104	80-120			
Lead	6.86	0.250	6.25		110	80-120			
Selenium	33.1	1.25	31.3		106	80-120			
Silver	2.59	0.250	2.50		103	80-120			
LCS Dup (2116005-BSD1)									Prepared: 04/12/21 Analyzed: 04/12/21
Arsenic	12.5	0.500	12.5		99.8	80-120	3.06	20	
Barium	316	6.25	313		101	80-120	1.36	20	
Cadmium	6.40	0.250	6.25		102	80-120	3.72	20	
Chromium	26.4	0.500	25.0		106	80-120	1.53	20	
Lead	6.58	0.250	6.25		105	80-120	4.09	20	
Selenium	31.9	1.25	31.3		102	80-120	3.85	20	
Silver	2.63	0.250	2.50		105	80-120	1.54	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2115015-BLK1)									Prepared: 04/07/21 Analyzed: 04/07/21
Chloride	ND	20.0							
LCS (2115015-BS1)									Prepared: 04/07/21 Analyzed: 04/07/21
Chloride	242	20.0	250		96.9	90-110			
Matrix Spike (2115015-MS1)				**Source: E104010-01**					Prepared: 04/07/21 Analyzed: 04/07/21
Chloride	296	20.0	250	32.2	106	80-120			
Matrix Spike Dup (2115015-MSD1)				**Source: E104010-01**					Prepared: 04/07/21 Analyzed: 04/07/21
Chloride	312	20.0	250	32.2	112	80-120	5.16	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	4/12/2021 4:31:33PM

Total Mercury by EPA 7471B

Analyst: AC

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	
Blank (2115034-BLK1)									Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	ND	20.0							
LCS (2115034-BS1)									Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	167	20.0	160		105	80-120			
Matrix Spike (2115034-MS1)				**Source: E103080-06**					Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	162	20.0	160	ND	101	80-120			
Matrix Spike Dup (2115034-MSD1)				**Source: E103080-06**					Prepared: 04/09/21 Analyzed: 04/09/21
Mercury	162	20.0	160	ND	101	80-120	0.0699	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	04/12/21 16:31

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page _____ of _____

Client: Kaiser Francis Oil Company
Project: NBL Pad 9 03.15.2021 Spill
Project Manager: Ashley Giovengo
Address: 1224 Standpipe Rd
City, State, Zip Carlshad, NM 88220
Phone: 505-382-1211
Email: ashley.giovengo@wescominc.com
Report due by:

Bill To
Attention: Wescom Inc.
Address: 1224 Standpipe Rd.
City, State, Zip Carlshad, NM 88220
Phone: 505-382-1211
Email: ashley.giovengo@wescominc.com
accountspayable@wescominc.com

Lab Use Only
Lab WO# E104014 | Job Number 21022C0001

TAT: 1D X | 2D | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM X | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	pH	BGDOC NM	BGDOC TX	Remarks
11:34am	04/05/21	S	1 jar	SS05-6'	1						X	X			
11:38am				SS05-9'	2						X	X			
10:54am				SS18-0.5'	3						X	X			
11:19am				SS20-0.5'	4						X	X			
11:34am				SS21-0.5'	5						X	X			
12:29pm				SS25-0.5'	6						X	X			

Additional Instructions: P.O. 23734

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	04/06/21	10:10am		4.6.21	1010
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	4.6.21	1650		4/7/21	10:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) / N
T1 _____ T2 _____ T3 _____
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____
Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 4/7/2021 10:53:02AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Kaiser Francis Oil Company	Date Received:	04/07/21 10:30	Work Order ID:	E104014
Phone:	(505) 382-1211	Date Logged In:	04/07/21 10:42	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	04/07/21 17:00 (0 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fedex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	No
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Project Information | Chain of Custody | Page 1 of 1

Client: Kaiser Francis Oil Company
Project: NRL Pad 9 03.15.2021 Spill
Project Manager: Ashley Giovengo
Address: 1224 Standpipe Rd
City, State, Zip Carlsbad, NM 88220
Phone: 505-382-1211
Email: ashley.giovengo@wescominc.com
Report due by:

Bill To
Attention: Wescom Inc.
Address: 1224 Standpipe Rd.
City, State, Zip Carlsbad, NM 88220
Phone: 505-382-1211
Email: ashley.giovengo@wescominc.com
accountspayable@wescominc

Lab Use Only
Lab WO# E104014 | Job Number 2022000[illegible]

TAT: 1D X | 2D | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM X | CO | UT | AZ | TX

Analysis and Method: DRO/ORO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 300.0 | pH | BGDOC NM | BGDOC TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO	GRO/DRO	BTEX	VOC	Metals	Chloride	pH	BGDOC NM	BGDOC TX	Remarks
11:34am	04/05/21	S	1 jar	SS05-6'	1	X	X	X		X					
11:38am				SS05-9'	2										
10:54am				SS18-0.5'	3	X	X	X		X					
11:19am				SS20-0.5'	4	X	X	X		X					
11:34am				SS21-0.5'	5	X	X	X		X					
12:29pm				SS25-0.5'	6	X	X	X		X					

Am 4/8/21 per Shar Harveste
2 day Rush on
added analysis

Additional Instructions: P.O.23734 email - shar.harvester@wescominc.com PO: 23815

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	04/06/21	10:10am		4.6.21	1010
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	4.6.21	1650		4/7/21	10:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Lab Use Only
Received on ice: (Y) N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 4/8/2021 4:35:35PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Kaiser Francis Oil Company	Date Received:	04/07/21 10:30	Work Order ID:	E104014
Phone:	(505) 382-1211	Date Logged In:	04/07/21 10:42	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	04/12/21 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fedex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	No
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Shar Harvester was added to COC for Emails per Ashley. Total RCRA 8 Metals, Btex, GRO, DRO/ORO analysis were added to Samples 1,3,4,5 and 6 with requested results in 2 days from 4/8/21

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Ashley Giovengo

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Kaiser Francis Oil Company

Project Name:	NBL Pad 9 03.15.2021 Spill
Work Order:	E107046
Job Number:	21022-0001
Received:	7/24/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/30/21

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 7/30/21

Ashley Giovengo
1224 Standpipe Rd
Carlsbad, NM 88220

Project Name: NBL Pad 9 03.15.2021 Spill
Workorder: E107046
Date Received: 7/24/2021 12:15:00PM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/24/2021 12:15:00PM, under the Project Name: NBL Pad 9 03.15.2021 Spill.

The analytical test results summarized in this report with the Project Name: NBL Pad 9 03.15.2021 Spill apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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Tom Brown
Technical Representative
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tbrown@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	07/30/21 09:37

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CONF08-A-5'	E107046-01A	Soil	07/23/21	07/24/21	Glass Jar, 4 oz.

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

CONF08-A-5'

E107046-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Wet Chemistry by EPA 9045D	pH Units	pH Units	Analyst: RAS			Batch: 2131020
pH @25°C	**8.10**		1	07/29/21	07/29/21	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2131002
Benzene	ND	0.0250	1	07/26/21	07/26/21	
Ethylbenzene	ND	0.0250	1	07/26/21	07/26/21	
Toluene	ND	0.0250	1	07/26/21	07/26/21	
o-Xylene	ND	0.0250	1	07/26/21	07/26/21	
p,m-Xylene	ND	0.0500	1	07/26/21	07/26/21	
Total Xylenes	ND	0.0250	1	07/26/21	07/26/21	
Surrogate: 4-Bromochlorobenzene-PID		*99.1 %*	*70-130*	*07/26/21*	*07/26/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2131002
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/26/21	07/26/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*109 %*	*70-130*	*07/26/21*	*07/26/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2131003
Diesel Range Organics (C10-C28)	**66.7**	25.0	1	07/26/21	07/26/21	
Oil Range Organics (C28-C36)	ND	50.0	1	07/26/21	07/26/21	
Surrogate: n-Nonane		*88.9 %*	*50-200*	*07/26/21*	*07/26/21*	
Total Metals by EPA 6010C	mg/kg	mg/kg	Analyst: AC			Batch: 2131010
Arsenic	**1.73**	0.500	1	07/28/21	07/28/21	
Barium	**70.3**	6.25	1	07/28/21	07/28/21	
Cadmium	ND	0.250	1	07/28/21	07/28/21	
Chromium	**5.85**	0.500	1	07/28/21	07/28/21	
Lead	**2.00**	0.250	1	07/28/21	07/28/21	
Selenium	ND	1.25	1	07/28/21	07/28/21	
Silver	ND	0.250	1	07/28/21	07/28/21	

Sample Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

CONF08-A-5'

E107046-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2131008
Chloride	ND	20.0	1	07/27/21	07/27/21	
Total Mercury by EPA 7471B	ug/kg	ug/kg	Analyst: AC			Batch: 2131012
Mercury	ND	20.0	1	07/28/21	07/28/21	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Wet Chemistry by EPA 9045D

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	pH Units	pH Units	pH Units	pH Units	%	%	%	%	
LCS (2131020-BS1)									Prepared: 07/29/21 Analyzed: 07/29/21
pH	8.01		8.00		100	98.75-101.25			
Duplicate (2131020-DUP1)				**Source: E107049-01**					Prepared: 07/29/21 Analyzed: 07/29/21
pH	7.30			7.27			0.412	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2131002-BLK1)									Prepared: 07/26/21 Analyzed: 07/26/21
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.71*		*8.00*		*96.3*	*70-130*			
LCS (2131002-BS1)									Prepared: 07/26/21 Analyzed: 07/26/21
Benzene	4.83	0.0250	5.00		96.6	70-130			
Ethylbenzene	4.68	0.0250	5.00		93.6	70-130			
Toluene	4.91	0.0250	5.00		98.2	70-130			
o-Xylene	4.81	0.0250	5.00		96.2	70-130			
p,m-Xylene	9.50	0.0500	10.0		95.0	70-130			
Total Xylenes	14.3	0.0250	15.0		95.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.78*		*8.00*		*97.2*	*70-130*			
Matrix Spike (2131002-MS1)				**Source: E107046-01**					Prepared: 07/26/21 Analyzed: 07/26/21
Benzene	4.97	0.0250	5.00	ND	99.5	54-133			
Ethylbenzene	4.79	0.0250	5.00	ND	95.7	61-133			
Toluene	5.04	0.0250	5.00	ND	101	61-130			
o-Xylene	4.93	0.0250	5.00	ND	98.7	63-131			
p,m-Xylene	9.72	0.0500	10.0	ND	97.2	63-131			
Total Xylenes	14.7	0.0250	15.0	ND	97.7	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.86*		*8.00*		*98.3*	*70-130*			
Matrix Spike Dup (2131002-MSD1)				**Source: E107046-01**					Prepared: 07/26/21 Analyzed: 07/26/21
Benzene	4.84	0.0250	5.00	ND	96.8	54-133	2.66	20	
Ethylbenzene	4.66	0.0250	5.00	ND	93.3	61-133	2.61	20	
Toluene	4.90	0.0250	5.00	ND	98.0	61-130	2.84	20	
o-Xylene	4.80	0.0250	5.00	ND	96.1	63-131	2.67	20	
p,m-Xylene	9.47	0.0500	10.0	ND	94.7	63-131	2.61	20	
Total Xylenes	14.3	0.0250	15.0	ND	95.1	63-131	2.63	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.90*		*8.00*		*98.8*	*70-130*			

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2131002-BLK1)									Prepared: 07/26/21 Analyzed: 07/26/21
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.96*		*8.00*		*112*	*70-130*			
LCS (2131002-BS2)									Prepared: 07/26/21 Analyzed: 07/26/21
Gasoline Range Organics (C6-C10)	55.5	20.0	50.0		111	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.91*		*8.00*		*111*	*70-130*			
Matrix Spike (2131002-MS2)				**Source: E107046-01**					Prepared: 07/26/21 Analyzed: 07/26/21
Gasoline Range Organics (C6-C10)	53.5	20.0	50.0	ND	107	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*9.03*		*8.00*		*113*	*70-130*			
Matrix Spike Dup (2131002-MSD2)				**Source: E107046-01**					Prepared: 07/26/21 Analyzed: 07/26/21
Gasoline Range Organics (C6-C10)	53.5	20.0	50.0	ND	107	70-130	0.0837	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.97*		*8.00*		*112*	*70-130*			

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2131003-BLK1)									Prepared: 07/26/21 Analyzed: 07/26/21
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*45.3*		*50.0*		*90.6*	*50-200*			
LCS (2131003-BS1)									Prepared: 07/26/21 Analyzed: 07/26/21
Diesel Range Organics (C10-C28)	394	25.0	500		78.7	38-132			
Surrogate: n-Nonane	*37.8*		*50.0*		*75.7*	*50-200*			
Matrix Spike (2131003-MS1)				**Source: E107048-04**					Prepared: 07/26/21 Analyzed: 07/26/21
Diesel Range Organics (C10-C28)	422	25.0	500	ND	84.4	38-132			
Surrogate: n-Nonane	*39.8*		*50.0*		*79.7*	*50-200*			
Matrix Spike Dup (2131003-MSD1)				**Source: E107048-04**					Prepared: 07/26/21 Analyzed: 07/26/21
Diesel Range Organics (C10-C28)	410	25.0	500	ND	82.1	38-132	2.87	20	
Surrogate: n-Nonane	*39.2*		*50.0*		*78.5*	*50-200*			

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Total Metals by EPA 6010C

Analyst: AC

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2131010-BLK1)									Prepared: 07/28/21 Analyzed: 07/28/21
Arsenic	ND	0.500							
Barium	ND	6.25							
Cadmium	ND	0.250							
Chromium	ND	0.500							
Lead	ND	0.250							
Selenium	ND	1.25							
Silver	ND	0.250							
LCS (2131010-BS1)									Prepared: 07/28/21 Analyzed: 07/28/21
Arsenic	12.2	0.500	12.5		97.7	80-120			
Barium	306	6.25	313		97.8	80-120			
Cadmium	6.26	0.250	6.25		100	80-120			
Chromium	23.7	0.500	25.0		94.8	80-120			
Lead	6.25	0.250	6.25		100	80-120			
Selenium	30.7	1.25	31.3		98.3	80-120			
Silver	2.44	0.250	2.50		97.4	80-120			
LCS Dup (2131010-BSD1)									Prepared: 07/28/21 Analyzed: 07/28/21
Arsenic	12.2	0.500	12.5		97.5	80-120	0.205	20	
Barium	302	6.25	313		96.6	80-120	1.24	20	
Cadmium	6.23	0.250	6.25		99.6	80-120	0.560	20	
Chromium	23.7	0.500	25.0		94.6	80-120	0.148	20	
Lead	6.15	0.250	6.25		98.4	80-120	1.53	20	
Selenium	30.4	1.25	31.3		97.4	80-120	0.981	20	
Silver	2.43	0.250	2.50		97.3	80-120	0.103	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2131008-BLK1)									Prepared: 07/27/21 Analyzed: 07/27/21
Chloride	ND	20.0							
LCS (2131008-BS1)									Prepared: 07/27/21 Analyzed: 07/27/21
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2131008-MS1)				**Source: E107046-01**					Prepared: 07/27/21 Analyzed: 07/27/21
Chloride	259	20.0	250	ND	104	80-120			
Matrix Spike Dup (2131008-MSD1)				**Source: E107046-01**					Prepared: 07/27/21 Analyzed: 07/27/21
Chloride	262	20.0	250	ND	105	80-120	1.21	20	

QC Summary Data

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	**Reported:**
1224 Standpipe Rd	Project Number:	21022-0001	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	7/30/2021 9:37:35AM

Total Mercury by EPA 7471B

Analyst: AC

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	ug/kg	ug/kg	ug/kg	ug/kg	%	%	%	%	
Blank (2131012-BLK1)									Prepared: 07/28/21 Analyzed: 07/28/21
Mercury	ND	20.0							
LCS (2131012-BS1)									Prepared: 07/28/21 Analyzed: 07/28/21
Mercury	155	20.0	160		96.8	80-120			
Matrix Spike (2131012-MS1)				**Source: E107046-01**					Prepared: 07/28/21 Analyzed: 07/28/21
Mercury	152	20.0	160	ND	95.3	80-120			
Matrix Spike Dup (2131012-MSD1)				**Source: E107046-01**					Prepared: 07/28/21 Analyzed: 07/28/21
Mercury	151	20.0	160	ND	94.2	80-120	1.21	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Kaiser Francis Oil Company	Project Name:	NBL Pad 9 03.15.2021 Spill	
1224 Standpipe Rd	Project Number:	21022-0001	**Reported:**
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	07/30/21 09:37

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Chain of Custody

Page 1 of 1

Client: KFOC
Project: N32 Pad 9 03.15.2021 Spill
Project Manager: Ashley Giovengo
Address: 1224 Standpipe Rd
City, State, Zip Carlsbad NM 88220
Phone: 505-382-1211
Email: Ashley Giovengo
Report due by:

Bill To
Attention: Wescom Inc.
Address: 1224 Standpipe Rd
City, State, Zip Carlsbad NM 88220
Phone: 505-382-1211
Email: Ashley Giovengo

Lab Use Only
Lab WO# E107046
Job Number 21022-0001

TAT: 1D | 2D | 3D | Standard: X

EPA Program: CWA | SDWA | RCRA

State: NM: X | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
0850	07/23/21	S	1	CONFO8-A-5'	1					X		X		PH test

Analysis and Method

Additional Instructions:
cc Shar Harvester AS Natalie Nunez Preserved on ice

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	07/23/21	1252		7/23/21	12:55
	7-23-21	3:27		7-24-21	12:15

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 7/26/2021 9:22:06AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Kaiser Francis Oil Company	Date Received:	07/24/21 12:15	Work Order ID:	E107046
Phone:	(505) 382-1211	Date Logged In:	07/23/21 14:41	Logged In By:	Raina Schwanz
Email:	ashley.giovengo@wescominc.com	Due Date:	07/30/21 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fedex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Email: Ashley, Shar, & Natalie

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Figure 2. Confirmation Areas
Bell Lake North 327H/NBL Pad 9 - HCl Spill
Incident ID: nAPP2107457594
GPS Coordinates: 32.332186, -103.508177
Lea County, New Mexico
Kaiser Francis Oil Corporation

Tables

Bell Lake North 327H 3/15/2021 Spill
Kaiser Francis Oil Company
April 14, 2021
Table 1. Laboratory Analysis Results: Spill Delineation 03/24/2021 and 04/05/2021

Sample Description			Petroleum Hydrocarbons			pH	Inorganic	Metals						
			Volatile		Extractable									
Sample ID	Depth (ft.)	Date	Benzene (mg/kg)	BTEX (total) (mg/kg)	TPH (mg/kg)	pH @25 °C Units	Chloride (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Closure Criteria			**10**	**50**	**100**	**6.5-9**	**600**							
Envirotech Inc.														
SS01	1	3/24/2021	-	-	-	6.86	**8070**	-	-	-	-	-	-	-
SS02	1	3/24/2021	-	-	-	7.25	149	-	-	-	-	-	-	-
SS03	1	3/24/2021	-	-	-	8.06	ND	-	-	-	-	-	-	-
SS04	1	3/24/2021	-	-	-	7.82	31.3	-	-	-	-	-	-	-
SS05	4	3/24/2021	-	-	-	7.28	**2220**	-	-	-	-	-	-	-
SS05	6	4/5/2021	ND	ND	ND	6.92	179	1.46	56.2	ND	12.4	4.37	ND	ND
SS05	9	4/5/2021	-	-	-	8.65	ND	-	-	-	-	-	-	-
SS18	0.5	4/5/2021	ND	ND	68.7	8.39	232	3.05	446	ND	5.1	ND	ND	ND
SS20	0.5	4/5/2021	ND	ND	32.1	8.25	66.8	1.21	57.2	ND	6.69	2.46	ND	ND
SS21	0.5	4/5/2021	ND	ND	ND	8.3	322	3.79	621	ND	3.84	ND	ND	ND
SS25	0.5	4/5/2021	ND	ND	63	8.28	197	3.16	331	ND	5.5	ND	ND	ND
BG01	1	3/24/2021	-	-	-	7.23	ND	1.19	31.2	ND	7.91	2.81	ND	ND
BG01	2	3/24/2021	-	-	-	7.83	ND	-	-	-	-	-	-	-

Abbreviations:
BTEX - Benzene, Toluene, Ethylene, Xylene
DRO - Diesel Range Organics
ft. - feet
GRO - Gasoline Range Organics
mg/kg - milligrams per kilogram
ND - Non-detect
TPH - Total Petroleum Hydrocarbons

Notes:
Red Bold - Results are above Closure Criteria.
Gray Highlight - Background samples.

Bell Lake North 327H 3/15/2021 Spill
Kaiser Francis Oil Company
July 23, 2021
Table 2. Laboratory Analysis Results: Confirmation Samples and Vertical Boreholes

Sample Description			Petroleum Hydrocarbons			pH	Inorganic	Metals						
			Volatile		Extractable									
Sample ID	Depth (ft.)	Date	Benzene (mg/kg)	BTEX (total) (mg/kg)	TPH (mg/kg)	pH @25 °C Units	Chloride (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Closure Criteria			**10**	**50**	**100**	**6.5-9**	**600**							
Envirotech Inc.														
BH01	0	7/1/2021	-	-	-	-	-	3.74	296	-	3.15	ND	-	-
BH02	0	7/1/2021	-	-	-	-	-	0.978	32	-	6.21	2.32	-	-
BH03	0	7/2/2021	-	-	-	-	-	1.08	29.7	-	5.95	2.67	-	-
CONF01	1	4/15/2021	ND	ND	ND	7.57	422	0.923	25.8	ND	6.13	2.51	ND	ND
CONF02	1	4/15/2021	ND	ND	ND	7.52	103	1.27	30.3	ND	7.11	2.63	ND	ND
CONF05	1	4/15/2021	ND	ND	ND	7.50	330	0.798	23.1	ND	6.57	2.26	ND	ND
CONF15	1	4/15/2021	ND	ND	ND	7.65	251	0.678	29.8	ND	5.83	2.45	ND	ND
CONF16	1	4/15/2021	ND	ND	ND	7.68	176	0.810	29.4	ND	6.29	2.40	ND	ND
CONF17	1	4/15/2021	ND	ND	ND	8.14	ND	0.630	30.1	ND	5.36	2.56	ND	ND
BG02	1	4/15/2021	ND	ND	ND	7.97	ND	0.658	25.4	ND	5.35	2.36	ND	ND
BG01	1	3/24/2021	-	-	-	7.23	ND	1.19	31.2	ND	7.91	2.81	ND	ND
BH01	2	7/1/2021	-	-	-	-	-	1.29	43	-	5.91	2.64	-	-
BH02	2	7/1/2021	-	-	-	-	-	1.5	40.9	-	7.77	2.53	-	-
BH03	2	7/2/2021	-	-	-	-	-	1.19	31.9	-	7.3	2.09	-	-
CONF12	2	4/15/2021	ND	ND	ND	7.59	180	0.930	25.2	ND	6.12	2.54	ND	ND
CONF03	3	4/15/2021	ND	ND	ND	6.55	450	0.853	24.1	ND	6.03	2.32	ND	ND
BG02	3	4/15/2021	ND	ND	ND	7.42	ND	0.708	34.9	ND	6.88	2.58	ND	ND
BH01	4	7/1/2021	-	-	-	-	-	1.08	30.3	-	6.49	2.48	-	-

Bell Lake North 327H 3/15/2021 Spill
Kaiser Francis Oil Company
July 23, 2021
Table 2. Laboratory Analysis Results: Confirmation Samples and Vertical Boreholes

Sample Description			Petroleum Hydrocarbons			pH	Inorganic	Metals						
			Volatile		Extractable									
Sample ID	Depth (ft.)	Date	Benzene (mg/kg)	BTEX (total) (mg/kg)	TPH (mg/kg)	pH @25 °C Units	Chloride (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Closure Criteria			**10**	**50**	**100**	**6.5-9**	**600**							
Envirotech Inc.														
BH02	4	7/2/2021	-	-	-	-	-	3.79	303	-	3.31	ND	-	-
BH03	4	7/2/2021	-	-	-	-	-	1.52	41.7	-	10.1	2.25	-	-
CONF11	4	4/15/2021	ND	ND	ND	7.37	ND	1.28	32.7	ND	10.6	2.34	ND	ND
BH02	5	7/2/2021	-	-	-	-	-	3.34	288	-	5.94	0.728	-	-
BH03	5	7/2/2021	-	-	-	-	-	1.63	52.7	-	10.9	3.44	-	-
CONF06	5	4/15/2021	ND	ND	ND	7.35	103	1.13	34.9	ND	10.1	2.72	ND	ND
CONF08	5	4/15/2021	ND	ND	ND	7.39	**1590**	1.77	36.4	ND	10.9	2.99	ND	ND
CONF08-A[1]	5	7/23/2021	ND	ND	66.7	8.1	**ND**	1.73	70.3	ND	5.85	2	ND	ND
CONF10	5	4/15/2021	ND	ND	ND	8.01	ND	1.34	44.8	ND	13.6	3.17	ND	ND
BH01	6	7/1/2021	-	-	-	-	-	4.64	520	-	2.08	ND	-	-
BH02	6	7/2/2021	-	-	-	-	-	4.41	287	-	4.38	ND	-	-
BH03	6	7/2/2021	-	-	-	-	-	1.31	74.4	-	13.1	3.3	-	-
CONF04	6	4/15/2021	ND	ND	ND	7.15	184	1.55	50.3	ND	10.7	2.67	ND	ND
CONF09	6	4/15/2021	ND	ND	ND	8.13	108	2.02	165	ND	8.17	1.52	ND	ND
CONF07	6.5	4/15/2021	ND	ND	ND	7.93	396	2.64	275	ND	5.42	ND	ND	ND

Bell Lake North 327H 3/15/2021 Spill
Kaiser Francis Oil Company
July 23, 2021
Table 2. Laboratory Analysis Results: Confirmation Samples and Vertical Boreholes

Sample Description			Petroleum Hydrocarbons			pH	Inorganic	Metals						
			Volatile		Extractable									
Sample ID	Depth (ft.)	Date	Benzene (mg/kg)	BTEX (total) (mg/kg)	TPH (mg/kg)	pH @25 °C Units	Chloride (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Closure Criteria			**10**	**50**	**100**	**6.5-9**	**600**							
Envirotech Inc.														
BH01	7	7/1/2021	-	-	-	-	-	5.42	580	-	3.38	ND	-	-
BH02	7	7/2/2021	-	-	-	-	-	1.9	142	-	6.28	1.55	-	-
BH03	7	7/2/2021	-	-	-	-	-	1.1	108	-	12.1	2.8	-	-
BH01	8	7/1/2021	-	-	-	-	-	3.95	198	-	2.69	ND	-	-
BH02	8	7/2/2021	-	-	-	-	-	2.28	233	-	4.59	0.723	-	-
BH03	8	7/2/2021	-	-	-	-	-	1.41	59.8	-	11.4	2.22	-	-
BH01	9	7/1/2021	-	-	-	-	-	2.55	285	-	2.88	ND	-	-
BH02	9	7/2/2021	-	-	-	-	-	1.26	158	-	4.58	1.5	-	-
BH03	9	7/2/2021	-	-	-	-	-	1.39	103	-	13	2.17	-	-
BH01	10	7/1/2021	-	-	-	-	-	1.83	102	-	4.19	0.875	-	-
BH02	10	7/2/2021	-	-	-	-	-	0.88	86.2	-	4.47	1.65	-	-
BH03	10	7/2/2021	-	-	-	-	-	1.22	86.8	-	8.98	1.61	-	-
CONF13	Wall	4/15/2021	ND	ND	ND	7.91	97.1	1.02	26.4	ND	6.77	2.12	ND	ND
CONF14	Wall	4/15/2021	ND	ND	ND	7.61	ND	0.855	29.6	ND	6.31	2.65	ND	ND
CONF18	Wall	4/15/2021	ND	ND	ND	8.05	55.3	1.08	30.9	ND	5.96	2.54	ND	ND

Abbreviations:
BTEX - Benzene, Toluene, Ethylene, Xylene
DRO - Diesel Range Organics
ft. - feet
GRO - Gasoline Range Organics
mg/kg - milligrams per kilogram
ND - Non-detect
TPH - Total Petroleum Hydrocarbons

Notes:
[1] Listed on Envirotech Lab Report E107046 as CONF08 - A - 5.0'.
Red Bold - Results are above Closure Criteria.
Black Bold - Resampled Confirmation area; results are below closure criteria.
Gray Highlight - Background samples.

Wescom Inc.
1224 Standpipe Road
Carlsbad, New Mexico 88220

(575) 840-3940
wescominc.com

August 05, 2021

Robert Hamlet, Christina Eads, and/or Chad Hensley
State of New Mexico
Energy, Minerals, and Natural Resources
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

Re: Closure Request

Company:	Kaiser Francis Oil Company
Location:	Bell Lake Unit North 327H/NBL Pad 9
API:	30-025-47853
PLSS:	Unit J Sec 06 T23S R34E
GPS:	32.3322411, -103.5089495
Incident ID:	nAPP2107457594

Background

Wescom, Inc., hereafter referred to as Wescom, has prepared this closure request on behalf of Kaiser Francis Oil Company, hereafter referred to as KFOC, regarding the release at the Bell Lake Unit North 327H (Site) located in Unit J, Section 06, Township 23 South and Range 34 East in Lea County, New Mexico. The GPS coordinates are as follows: North 32.3322411 and West -103.5089495. Surface owner of the site is Bureau of Land Management. The Site falls within New Mexico Oil Conservation Division (NMOCD), District 2 Artesia.

On March 15, 2021, KFOC personnel discovered a leak which was caused by a hole in a frac tank containing 20% hydrochloric acid (HCl). Of the 100 barrels (bbls) of HCl released, 95 bbls were released into a lined secondary containment and recovered. Approximately five bbls leaked onto the ground from a small hole in the lined secondary containment. The acid that leaked onto the ground was neutralized with soda ash upon discovery.

Surface & Ground Water

The New Mexico Office of the State Engineer (OSE) records indicates nearest ground water measurement in the area is greater than 200 feet below ground surface (bgs) and is 0.72 miles Southeast of the location, shown in Attachment C.

No playas, lakes, ponds, riverines or wetlands are located within a within a half-mile radius of this site (see Attachment C).

Karst Potential

According to data from the Bureau of Land Management, this Site is located within low karst potential as shown in Attachment D. There are no indicators of karst around the Site surface.

Target Remedial Levels

The target cleanup levels are determined using the NMOCD Closure Criteria (19.15.29.12.B(4)) and Table 1 NMAC, inserted below including karst guidelines from the Bureau of Land Management. The applicable Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) Benzene, 50 ppm combined benzene, toluene, ethyl benzene, and total xylenes (BTEX), 100 ppm Total Petroleum Hydrocarbons (TPH). Characterization of vertical and horizontal extent of chloride concentration to a level of 600 mg/kg (ppm) is also required. As per email communication with NMOCD, KFOC has used background levels of pH and metals to assist in driving the cleanup criteria for those constituents, (see Table 2).

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Bell Lake North 327H/NBL Pad 9--32.3322411, -103.5089495						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride * numerical limit or background, whichever is greater	**TPH**	**GRO+DRO**	**BTEX**	**Benzene**
Based on high karst potential	low	600	100		50	10
less than 50 ft bgs or **no water data within 1/2 mile**	**0.72**	**600**	**100**		**50**	**10**
51 ft to 100 ft		10000	2500	1000	50	10
greater than 100 ft		20000	2500	1000	50	10
Surface water	**yes or no**	**If yes, then**				
< 300 feet from continuously flowing watercourse or other significant watercourse?	no					
< 200 feet from lakebed, sinkhole or playa lake?	no					
Water Well or Water Source						
< 500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	no					
< 1000 feet from fresh water well or spring?	no					
Human and Other Areas						
< 300 feet from an occupied permanent residence, school, hospital, institution or church?	no					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	no					
< 100 feet from wetland?	no					
within area overlying a subsurface mine?	no					
within an unstable area?	no					
within a 100-year floodplain?	no					

Site Assessment & Delineation

Wescom conducted soil sampling on March 24, 2021 to determine the horizontal and vertical extent of the contamination from the 5 bbl spill. It was determined that further vertical delineation activities would be required. Wescom was dispatched to location on April 5, 2021 to complete vertical delineation and to estimate the yardage of impacted soil that would require remediation. Approximately 20 yards of soil was removed on April 5, 2021, and disposed of at an approved facility. A background sample, BG01, was collected 80 feet to the south of the caliche pad, as shown in Figure 1. A total of seven samples were collected on March 24, 2021 and six samples were collected on April 5, 2021. Delineation sample points are presented in Figure 1, laboratory analysis results are listed in Table 1, and laboratory analytical reports are included in Attachment E.

In accordance with NMOCD, soil samples were tested for all components in Table 1 NMAC. As indicated in the Target Remedial Levels paragraph, confirmation samples were tested for pH and RCRA 8 metals. On April 15, 2021 an additional background sample was taken at one foot bgs to establish background metal and pH concentrations. Three vertical boreholes were drilled by Atkins Engineering on July 1, 2021, and July 2, 2021, to establish background metal concentrations and pH at varying depths. One borehole was completed on-pad and two boreholes were completed off pad as shown in Figure 1. Samples were collected every two feet from surface to a depth of four feet and every foot from five feet bgs to a depth of ten feet bgs. A confining layer was hit at a depth of five feet bgs when sampling BH01 on-pad, therefore, no sample was collected at five feet. Atkins Engineering augured to six feet on BH01 and sampling resumed.

Confirmation Sampling

The required 48-hour confirmation sampling notifications were sent on April 12, 2021, and July 21, 2021, to Victoria Venegas, Robert Hamlet, Christina Eads and Mike Bratcher with the NMOCD in Santa Fe, New Mexico. Excavation of spill area began on April 15, 2021. Confirmation samples were collected following removal of impacted soils on April 15, 2021, and April 16, 2021. Approximately 280 yards of contaminated soil was removed from the spill area over the 2-day sampling period. Based on the analytical data, it was determined that the chloride contaminant levels at sample point CONF08 were above RRAL's. The area of CONF08 was resampled on July 23, 2021 at a depth of five feet bgs. The resampled area is labeled as CONF08-A in Figure 2 and Table 2. Laboratory analysis results for CONF08-A came back below RRALs.

19 composite confirmation samples were obtained from April 15,2021, April 16, 2021 and July 23, 2021. All soil samples were properly packaged, preserved, and transported to Envirotech, Inc. by chain of custody, and analyzed for Total Petroleum Hydrocarbons, or TPH—Method 8015D, BTEX—Method 8021B, and Chlorides—Method 300.0/9056A. The results are presented in Table 2. Laboratory analytical reports are included in Attachment E. Locations of confirmation samples are shown in Figure 2.

Request for Closure

Based on the confirmation sample laboratory data, depth to ground water, the fact this release has been delineated both horizontally and vertically, impacted material has been removed and properly disposed of and the fact this release remained on site, KFOC hereby requests closure for incident number nAPP2107457594. KFOC also requests that no further action be taken at this time.

If you have any questions or comments, please do not hesitate to call Mrs. Ashley Giovengo at (505) 382-1211.

Sincerely,

Ashley Giovengo
Environmental Manager-Permian

Figures

Tables

Attachments

Figures

Legend

- Delineation Points
- Background Samples
- Edge of Pad
- Approx. Spill Area

0 47.5 95 142.5 190 Feet

N

Figure 1. Delineation Samples
Bell Lake North 327H/NBL Pad 9 - HCl Spill
Incident ID: nAPP2107457594
GPS Coordinates: 32.332186, -103.508177
Lea County, New Mexico
Kaiser Francis Oil Corporation

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: KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK 74121	OGRID: 12361
	Action Number: 41045
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	9/2/2021