

OCD - HOBBS  
10/07/2020  
RECEIVED

FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM0001244A
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. BELL LAKE / NMNM 068292X
2. Name of Operator KAISER FRANCIS OIL COMPANY [12361]		8. Lease Name and Well No. BELL LAKE UNIT NORTH [316707] 417H
3a. Address 6733 S. Yale Ave., Tulsa, OK 74121	3b. Phone No. (include area code) (918) 491-0000	9. API Well No. 30-025-47850
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SENE / 2180 FNL / 840 FEL / LAT 32.3349163 / LONG -103.4863305 At proposed prod. zone SWSE / 100 FSL / 1410 FEL / LAT 32.3121494 / LONG -103.488146		10. Field and Pool, or Exploratory [98265] OJO CHISO/WOLFCAMP, SOUTHWEST
14. Distance in miles and direction from nearest town or post office* 20 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 5/T23S/R34E/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 460 feet	16. No of acres in lease 634.35	17. Spacing Unit dedicated to this well 480.0
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 11470 feet / 19601 feet	20. BLM/BIA Bond No. in file FED: WYB000055
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3422 feet	22. Approximate date work will start* 07/01/2020	23. Estimated duration 40 days
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) STORMI DAVIS / Ph: (918) 491-0000	Date 02/25/2020
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575) 234-5959	Date 09/21/2020
Title Assistant Field Manager Lands & Minerals Carlsbad Field Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 10/07/2020

SL

(Continued on page 2)

APPROVED WITH CONDITIONS  
Approval Date: 09/21/2020

KZ  
10/19/2020

\*(Instructions on page 2)

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM I:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**ITEM 24:** If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Operator Certification Data Report

09/21/2020

### Operator Certification

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

NAME: Stormi Davis

Signed on: 02/20/2020

Title: Regulatory Analyst

Street Address: 106 W. Riverside Drive

City: Carlsbad

State: NM

Zip: 88220

Phone: (575)308-3765

Email address: nmogrservices@gmail.com

### Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



APD ID: 10400054469

Submission Date: 02/25/2020

Highlighted data  
reflects the most  
recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

APD ID: 10400054469

Tie to previous NOS? N

Submission Date: 02/25/2020

BLM Office: CARLSBAD

User: Stormi Davis

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM0001244A

Lease Acres: 634.35

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM068292X

Agreement name: BELL LAKE

Keep application confidential? Y

Permitting Agent? YES

APD Operator: KAISER FRANCIS OIL COMPANY

**Operator letter of designation:**

## Operator Info

Operator Organization Name: KAISER FRANCIS OIL COMPANY

Operator Address: 6733 S. Yale Ave.

Zip: 74121

Operator PO Box: PO Box 21468

Operator City: Tulsa

State: OK

Operator Phone: (918)491-0000

Operator Internet Address:

## Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: OJO CHISO

Pool Name: WOLFCAMP,  
SOUTHWEST

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL



Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N

Use Existing Well Pad? N

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: NORTH Number: 18

Well Class: HORIZONTAL

BELL LAKE UNIT

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 20 Miles

Distance to nearest well: 30 FT

Distance to lease line: 460 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

**Well plat:** BLUN\_417H\_C102\_20200828131718.pdf

Well work start Date: 07/01/2020

Duration: 40 DAYS

### Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 7680

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	218 0	FNL	840	FEL	23S	34E	5	Aliquot SENE	32.33491 63	- 103.4863 305	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 000058 7	342 2	0	0	N
KOP Leg #1	218 0	FNL	840	FEL	23S	34E	5	Aliquot SENE	32.33491 63	- 103.4863 305	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 000058 7	- 747 5	109 20	108 97	N
PPP Leg #1-1	126 5	FNL	132 0	FEL	23S	34E	8	Aliquot NWNE	32.32294 23	- 103.4878 993	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 000027 9	- 804 8	157 00	114 70	Y

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	264 0	FSL	132 5	FEL	23S	34E	8	Aliquot NWSE	32.31913 34	- 103.4879 874	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	- 804 8	170 60	114 70	Y
PPP Leg #1-3	260 0	FSL	125 0	FEL	23S	34E	5	Aliquot NESE	32.33353 3	- 103.4876 57	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 000124 4A	- 804 8	118 20	114 70	Y
PPP Leg #1-4	264 0	FSL	125 0	FEL	23S	34E	5	Aliquot NESE	32.33364 37	- 103.4876 55	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 000124 4A	- 804 8	117 80	114 70	Y
PPP Leg #1-5	0	FNL	130 5	FEL	23S	34E	8	Aliquot NENE	32.32638 88	- 103.4878 197	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 000003 9	- 804 8	144 20	114 70	Y
EXIT Leg #1	100	FSL	141 0	FEL	23S	34E	8	Aliquot SWSE	32.31214 94	- 103.4881 46	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	- 804 8	196 01	114 70	Y
BHL Leg #1	100	FSL	141 0	FEL	23S	34E	8	Aliquot SWSE	32.31214 94	- 103.4881 46	LEA	NEW MEXI CO	NEW MEXI CO	S	STATE	- 804 8	196 01	114 70	Y

NW CORNER SEC. 5  
LAT. = 32.3409038°N  
LONG. = 103.5007079°W

NMSP EAST (FT)  
N = 488752.57  
E = 798485.80

W/4 CORNER SEC. 5  
LAT. = 32.3336332°N  
LONG. = 103.5007116°W

NMSP EAST (FT)  
N = 486107.27  
E = 798505.21

SW CORNER SEC. 5  
LAT. = 32.3263820°N  
LONG. = 103.5007113°W

NMSP EAST (FT)  
N = 483469.26  
E = 798525.81

**FIRST TAKE POINT**  
2600' FSL, 1250' FEL  
LAT. = 32.3335330°N  
LONG. = 103.4876570°W

NMSP EAST (FT)  
N = 486102.42  
E = 802537.76

W/4 CORNER SEC. 8  
LAT. = 32.3191330°N  
LONG. = 103.5006991°W

NMSP EAST (FT)  
N = 480832.11  
E = 798550.10

SW CORNER SEC. 8  
LAT. = 32.3118769°N  
LONG. = 103.5006807°W

NMSP EAST (FT)  
N = 478192.36  
E = 798576.29

N89°32'09"E 2639.76 FT N89°31'53"E 2640.17 FT

N/4 CORNER SEC. 5  
LAT. = 32.3409059°N  
LONG. = 103.4921626°W

NMSP EAST (FT)  
N = 488773.75  
E = 801125.01

BELL LAKE UNIT NORTH 417H  
ELEV. = 3421.8'  
LAT. = 32.3349163°N (NAD83)  
LONG. = 103.4863305°W

NMSP EAST (FT)  
N = 486608.92  
E = 802943.49

S/4 CORNER SEC. 5  
LAT. = 32.3263863°N  
LONG. = 103.4921612°W

NMSP EAST (FT)  
N = 483491.46  
E = 801166.92

S89°31'07"W 2641.67 FT S89°31'35"W 2646.32 FT

S00°39'38"W 7782.51 FT

**BOTTOM OF HOLE**  
LAT. = 32.3121494°N  
LONG. = 103.4881460°W

NMSP EAST (FT)  
N = 478321.80  
E = 802448.06

BHL/LTP  
DNF

S89°33'51"W 2641.73 FT S89°33'51"W 2641.73 FT

**17 OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stormi Davis 2/20/20

Signature Date

**Stormi Davis**

Printed Name

ssdavis104@gmail.com

E-mail Address

**18 SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 19, 2019

Date of Survey

[Signature]

Signature and Seal of Professional Surveyor

Certificate Number FILMCON F. JARVIS 12797

SURVEY NO. 7680



APD ID: 10400054469

Submission Date: 02/25/2020

Highlighted data  
reflects the most  
recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
668520	---	3422	0	0	OTHER : Surface	NONE	N
668521	RUSTLER	2222	1200	1200	SANDSTONE	NONE	N
668522	SALADO	1822	1600	1600	SALT	NONE	N
668523	TOP SALT	1622	1800	1800	SALT	NONE	N
668524	BASE OF SALT	-1278	4700	4700	SALT	NONE	N
668525	LAMAR	-1528	4950	4950	SANDSTONE	NATURAL GAS, OIL	N
668526	BELL CANYON	-1728	5150	5150	SANDSTONE	NATURAL GAS, OIL	N
668527	CHERRY CANYON	-2753	6175	6175	SANDSTONE	NATURAL GAS, OIL	N
668528	BRUSHY CANYON	-4078	7500	7500	SANDSTONE	NATURAL GAS, OIL	N
668529	BONE SPRING	-5078	8500	8500	LIMESTONE	NATURAL GAS, OIL	N
668530	AVALON SAND	-5173	8595	8595	SANDSTONE	NATURAL GAS, OIL	N
668531	BONE SPRING 1ST	-6078	9500	9500	SANDSTONE	NATURAL GAS, OIL	N
668538	BONE SPRING 2ND	-6573	9995	9995	SANDSTONE	NATURAL GAS, OIL	N
668858	BONE SPRING LIME	-7078	10500	10500	LIMESTONE	NATURAL GAS, OIL	N
668859	BONE SPRING 3RD	-7488	10910	10910	SANDSTONE	NATURAL GAS, OIL	N
668860	WOLFCAMP	-7848	11270	11270	SANDSTONE	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Pressure Rating (PSI): 5M

Rating Depth: 13000

Equipment: A 5M system will be installed according to Onshore Order #2 consisting of an Annular Preventer, BOP with two rams, a blind ram and safety valves and appropriate handles located on the rig floor. BOP will be equipped with 2 side outlets (choke side shall be a minimum 3 line, and kill side will be a minimum 2 line). Kill line will be installed with (2) valves and a check valve (2 min) of proper pressure rating for the system. Remote kill line (2 min) will be installed and ran to the outer edge of the substructure and be unobstructed. A manual and hydraulic valve (3 min) will be installed on the choke line, 3 chokes will be used with one being remotely controlled. Fill up line will be installed above the uppermost preventer. Pressure gauge of proper pressure rating will be installed on choke manifold. Upper and lower kelly cocks will be utilized with handles readily available in plain sight. A float sub will be available at all times. All connections subject to well pressure will be flanged, welded, or clamped.

Requesting Variance? YES

Variance request: Flex Hose Variance MultiBowl Wellhead

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all of the components installed will be functional and tested.

**Choke Diagram Attachment:**

BLUN\_417H\_Choke\_Manifold\_20200220110759.pdf

**BOP Diagram Attachment:**

Cactus\_Flex\_Hose\_16C\_Certification\_20200203142843.pdf

Annular\_BOP\_Variance\_Request\_20200220110832.pdf

BLUN\_417H\_Wellhead\_20200220110834.pdf

BOP\_stack\_10M\_5k\_annular\_20200828131842.pdf

### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1550	0	1550	3422	1872	1550	J-55	40.5	ST&C	2.7	5.3	DRY	8.2	DRY	12.3
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	10820	0	10797		-7375	10820	HCP-110	29.7	LT&C	1.3	1.9	DRY	2.4	DRY	2.9
3	PRODUCTION	6.75	5.5	NEW	API	N	0	19601	0	11470		-8048	19601	P-110	20	OTHER - USS Eagle SFH	1.8	2	DRY	2.7	DRY	3.2



Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

#### Casing Attachments

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**Casing ID:** 1      **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

BLUN\_417H\_Casing\_Assumptions\_20200828132050.pdf

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**Casing ID:** 2      **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

BLUN\_417H\_Casing\_Assumptions\_20200828132018.pdf

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**Casing ID:** 3      **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

5.5\_x\_20\_P110\_HP\_USS\_EAGLE\_SFH\_Performance\_Sheet\_20200220111126.pdf

BLUN\_417H\_Casing\_Assumptions\_20200828132030.pdf

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#### Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1550	750	1.7	13.5	1297	50	ExtendaCem	Poly E Flake

INTERMEDIATE	Lead		0	1082 0	819	2.73	11	2236	25	NeoCem	Extender
INTERMEDIATE	Tail		0	1082 0	559	1.2	15.6	668	25	Halcem	none
PRODUCTION	Lead		9000	1960 1	875	1.22	14.5	1070	15	VersaCem	Halad

### Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all time.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1079 7	1147 0	OIL-BASED MUD	10	12							
1550	1079 7	OTHER : Diesel- Brine Emulsion	8.7	8.9							
0	1550	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

## Section 6 - Test, Logging, Coring

### List of production tests including testing procedures, equipment and safety measures:

Top of cement on production casing will be determined by calculation.

### List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY, GAMMA RAY LOG, MUD LOG/GEOLOGIC LITHOLOGY LOG, MUD LOG/GEOLOGICAL LITHOLOGY LOG,

### Coring operation description for the well:

None planned

## Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7157

Anticipated Surface Pressure: 4633

Anticipated Bottom Hole Temperature(F): 199

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

### Describe:

### Contingency Plans geohazards description:

### Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

### Hydrogen sulfide drilling operations plan:

BLUN\_H2S\_Plan\_20200114113955.pdf

## Section 8 - Other Information

### Proposed horizontal/directional/multi-lateral plan submission:

BLUN\_417H\_Directional\_Plan\_20200220112357.pdf

### Other proposed operations facets description:

Gas Capture Plan attached

### Other proposed operations facets attachment:

BLUN\_Pad\_18\_Gas\_Capture\_Plan\_20200218173046.pdf

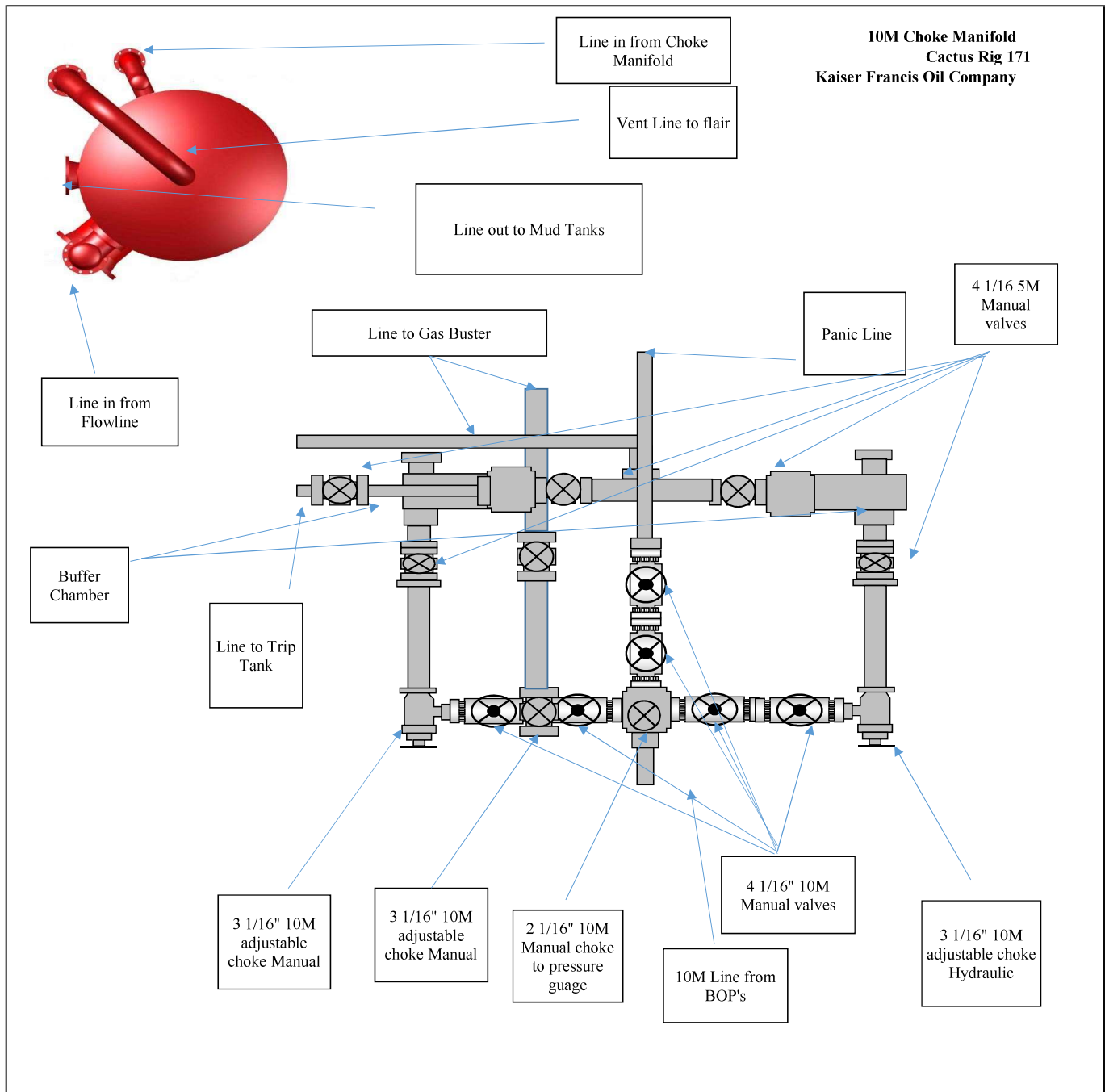
### Other Variance attachment:

Cactus\_Flex\_Hose\_16C\_Certification\_20200203143842.pdf

Annular\_BOP\_Variance\_Request\_20200220112452.pdf

BLUN\_417H\_Wellhead\_20200220112456.pdf







BLUN 417H

## Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor (Min 1.8)	Joint Tensile Safety Factor (Min 1.8)
Conductor	120	20"				New		120														
Surface	1550	10-3/4"	40.5	J-55	STC	New	14-3/4"	1550	FW	8.4 - 9.0	32 - 34	NC	9	590	1580	3130	629000	420000	2.7	5.3	12.3	8.2
Intermediate	10820	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	10797	DBE	8.7 - 9.0	28-29	NC	9	5053	6700	9460	940000	769000	1.3	1.9	2.9	2.4
Production	19601	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	11470	OBM	10.0-12.0	55-70		12	7157	13150	14360	729000	629000	1.8	2.0	3.2	2.7



## U. S. Steel Tubular Products

5 1/2 20.00 lb (0.361) P110 HP

USS-EAGLE SFH™

	PIPE	CONNECTION	
<b>MECHANICAL PROPERTIES</b>			
Minimum Yield Strength	125,000		psi
Maximum Yield Strength	140,000		psi
Minimum Tensile Strength	130,000		psi
<b>DIMENSIONS</b>			
Outside Diameter	5.500	5.830	in.
Wall Thickness	0.361		in.
Inside Diameter	4.778	4.693	in.
Drift - API	4.653	4.653	in.
Nominal Linear Weight, T&C	20.00		lbs/ft
Plain End Weight	19.83		lbs/ft
<b>SECTION AREA</b>			
Cross Sectional Area   Critical Area	5.828	5.027	sq. in.
Joint Efficiency		86.25	%
<b>PERFORMANCE</b>			
Minimum Collapse Pressure	13,150	13,150	psi
External Pressure Leak Resistance		10,000	psi
Minimum Internal Yield Pressure	14,360	14,360	psi
Minimum Pipe Body Yield Strength	729,000		lbs
Joint Strength		629,000	lbs
Compression Rating		629,000	lbs
Reference Length		21,146	ft
Maximum Uniaxial Bend Rating		89.9	deg/100 ft
<b>MAKE-UP DATA</b>			
Minimum Make-Up Torque		14,200	ft-lbs
Maximum Make-Up Torque		16,800	ft-lbs
Maximum Operating Torque		25,700	ft-lbs
Make-Up Loss		5.92	in.

## Notes:

- 1) Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2) Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3) Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 4) Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 5) Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.
- 6) Connection external pressure resistance has been verified to 10,000 psi (Fit-For-Service testing protocol).

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 Manuel USS Product Data Sheet 2017 rev26 (Sept)

BLUN 417H

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BLUN 417H

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**KAISER-FRANCIS OIL COMPANY  
HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN  
FOR DRILLING/COMPLETION WORKOVER/FACILITY**

**Bell Lake Unit North  
SECTION 1 -T23S-R33E  
SECTION 6 -T23S-R34E  
SECTION 5 -T23S-R34E**

**LEA COUNTY, NM**

This well/facility is not expected to have H<sub>2</sub>S, but due to the sensitive location, the following is submitted as requested.



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Emergency Response Activation and General Responsibilities	3
Individual Responsibilities During An H <sub>2</sub> S Release	4
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## **EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES**

### **Activation of the Emergency Action Plan**

In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections below for further responsibilities:

1. Notify the senior ranking contract representative on site.
2. Notify Kaiser-Francis representative in charge.
3. Notify civil authorities if the Kaiser-Francis Representative cannot be contacted and the situation dictates.
4. Perform rescue and first aid as required (without jeopardizing additional personnel).

### **General Responsibilities**

In the event of an H<sub>2</sub>S emergency, the following plan will be initiated.

- 1) All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
- 2) If for any reason a person must enter the hazardous area, they must wear a SCBA (Self contained breathing apparatus).
- 3) Always use the "buddy system".
- 4) Isolate the well/problem if possible.
- 5) Account for all personnel
- 6) Display the proper colors, warning all unsuspecting personnel of the danger at hand
- 7) Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

## **INDIVIDUAL RESPONSIBILITIES DURING AN H<sub>2</sub>S RELEASE**

The following procedures and responsibilities will be implemented on activation of the H<sub>2</sub>S siren and lights.

### **All Personnel:**

1. On alarm, don escape unit (if available) and report to upwind briefing area.

### **Rig Manager/Tool Pusher:**

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and/or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contract management and Kaiser-Francis Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

### **Two People Responsible for Shut-in and Rescue:**

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

### **All Other Personnel:**

1. Isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

### **Kaiser-Francis Oil Company Representative:**

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify company management or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

#### **PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION:**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release.

The decision to ignite a well should be a last resort and one if not both of the following pertain.

- 1) Human life and/or property are in danger.
- 2) There is no hope of bringing the situation under control with the prevailing conditions at the site.

#### **INSTRUCTIONS FOR IGNITION:**

- 1) Two people are required. They must be equipped with positive pressure; self contained breathing apparatus and a "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.
- 2) One of the people will be a qualified safety person who will test the atmosphere for H<sub>2</sub>S, Oxygen, & LFL. The other person will be the company supervisor; he is responsible for igniting the well.
- 3) Ignite up-wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25mm flare gun shall be used, with a +/-500' range to ignite the gas.
- 4) Prior to ignition, make a final check for combustible gases.
- 5) Following ignition, continue with the emergency actions & procedures as before.

#### **CONTACTING AUTHORITIES**

Kaiser-Francis personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been reached)

	<u>OFFICE</u>	<u>MOBILE</u>
Kaiser-Francis Oil Co.	918/494-0000	
Bill Wilkinson	580/668-2335	580/221-4637
David Zerger	918/491-4350	918/557-6708
Charles Lock	918/491-4337	918/671-6510
Stuart Blake	918/491-4347	918/510-4126
Robert Sanford	918/491-4201	918/770-2682
Eric Hansen	918/491-4339	918/527-5260

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

State Police – Artesia	575/748-9718
State Police – Hobbs	575/392-5580
State Police – Carlsbad	575/885-3138
Lea County Sheriff - Lovington	575/396-3611
Local Emergency Planning Center – Lea County	575/396-8607
Local Emergency Planning Center – Eddy County	575/885-3581
Fire Fighting, Rescue & Ambulance – Carlsbad	911 or 575/885-3125
Fire Fighting, Rescue & Ambulance – Hobbs	911 or 575/397-9308
Fire Fighting – Jal Volunteer Fire Department	911 or 505/395-2221
New Mexico Oil & Gas Commission – Artesia	575/748-1283
New Mexico Oil & Gas Commission – Hobbs	575/393-6161
Air Medical Transport Services – Hobbs	800/550-1025
Med Flight Air Ambulance – Albuquerque	505/842-4433
Angel MedFlight	844/553-9033
DXP	432/580-3770
BJ Services	575/392-5556
Halliburton	575/392-6531 800/844-8451



## PROTECTION OF THE GENERAL PUBLIC/ROE:

In the event of a release with a concentration greater than 100 ppm H<sub>2</sub>S, the ROE (Radius of Exposure) calculations will be done to determine if the following conditions have been met:

- Does the 100 ppm ROE include any public area (any place not associated with this site)
- Does the 500 ppm ROE include any public road (any road which the general public may travel)
- Is the 100 ppm ROE equal to or greater than 3000 feet

If any one of these conditions have been met then the Contingency Plan will be implemented. The following shows how to calculate the radius of exposure and an example.

### **Calculation for the 100 ppm ROE:**

$$X = [(1.589)(\text{concentration})(Q)]^{(0.6258)} \quad \begin{array}{l} \text{(H}_2\text{S concentrations in decimal form)} \\ 10,000 \text{ ppm} = 1. \\ 1,000 \text{ ppm} = .1 \\ 100 \text{ ppm} = .01 \\ 10 \text{ ppm} = .001 \end{array}$$

### **Calculation for the 500 ppm ROE:**

$$X + [(0.4546)(\text{concentration})(Q)]^{(0.6258)}$$

EXAMPLE: If a well/facility has been determined to have 150 ppm H<sub>2</sub>S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFPD then:

$$\text{ROE for 100 PPM} \quad X = [(1.589)(.0150)(200)]^{(0.6258)}$$

$$X = 2.65'$$

$$\text{ROE for 500 PPM} \quad X = [(0.4546)(.0150)(200)]^{(0.6258)}$$

$$X = 1.2'$$

(These calculations will be forwarded to the appropriate District NMOCD office when applicable.)

## PUBLIC EVACUATION PLAN:

(When the supervisor has determined that the General Public will be involved, the following plan will be implemented)

- 1) Notification of the emergency response agencies of the hazardous condition and Implement evacuation procedures.
- 2) A trained person in H<sub>2</sub>S safety, shall monitor with detection equipment the H<sub>2</sub>S Concentration, wind and area of exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment will be UL approved, for use in class I groups A,B,C & D, Division I, hazardous locations. All monitors will have a minimum capability of measuring H<sub>2</sub>S, oxygen, and flammable values.)**
- 3) Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
- 4) The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

### **CHARACTERISTICS OF H<sub>2</sub>S AND SO<sub>2</sub>**

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### **TRAINING:**

All responders must have training in the detection of H<sub>2</sub>S measures for protection against the gas, equipment used for protection and emergency response. Weekly drills by all crews will be conducted and recorded in the IADC daily log. Additionally, responders must be equipped with H<sub>2</sub>S monitors at all times.

### **PUBLIC RELATIONS**

Kaiser-Francis recognizes that the news media have a legitimate interest in incidents at Kaiser-Francis facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Kaiser-Francis employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.

S5-T23S-R34E SL  
2180'FNL 840'FEL  
S5-T23S-R34E FTP  
2600'FSL 1250'FEL  
S8-T23S-R34E PBHL  
100'FSL 1410'FEL

# Titan Directional Drilling

## Survey Report

<b>Company:</b>	Kaiser-Francis Oil Company	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit North 417H - Slot F
<b>Project:</b>	Permian NM E'83	<b>TVD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Site:</b>	BLUN Pad 18	<b>MD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Well:</b>	Bell Lake Unit North 417H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

<b>Project</b>	Permian NM E'83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		Using geodetic scale factor

<b>Site</b>	BLUN Pad 18, Centered on 217H		
<b>Site Position:</b>		<b>Northing:</b>	486,548.74 usft
<b>From:</b>	Map	<b>Easting:</b>	802,944.04 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 20' 5.103 N
		<b>Longitude:</b>	103° 29' 10.789 W
		<b>Grid Convergence:</b>	0.45 °

<b>Well</b>	Bell Lake Unit North 417H - Slot F		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 486,608.92 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 802,943.49 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	32° 20' 5.699 N
		<b>Longitude:</b>	103° 29' 10.790 W
		<b>Ground Level:</b>	3,421.80 usft

<b>Wellbore</b>	#417H OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	11/05/20	6.59	60.04	47,631.68721416

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	183.42	

<b>Planned Survey</b>										
	<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
	<b>Rustler</b>									
	1,260.00	0.00	0.00	1,260.00	0.00	0.00	0.00	0.00	0.00	0.00
	<b>10 3/4"</b>									
	1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
	1,500.00	1.50	279.45	1,499.99	0.21	-1.29	-0.14	1.50	1.50	0.00
	1,600.00	3.00	279.45	1,599.91	0.86	-5.16	-0.55	1.50	1.50	0.00
	1,600.09	3.00	279.45	1,600.00	0.86	-5.17	-0.55	0.00	0.00	0.00
	<b>Salado</b>									
	1,700.00	4.50	279.45	1,699.69	1.93	-11.62	-1.24	1.50	1.50	0.00
	1,800.00	6.00	279.45	1,799.27	3.43	-20.64	-2.20	1.50	1.50	0.00
	1,800.73	6.01	279.45	1,800.00	3.45	-20.72	-2.21	1.50	1.50	0.00
	<b>Top of Salt</b>									
	1,866.67	7.00	279.45	1,865.51	4.67	-28.09	-2.99	1.50	1.50	0.00
	1,900.00	7.00	279.45	1,898.59	5.34	-32.09	-3.42	0.00	0.00	0.00

# Titan Directional Drilling

## Survey Report

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<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,000.00	7.00	279.45	1,997.85	7.34	-44.11	-4.70	0.00	0.00	0.00
2,100.00	7.00	279.45	2,097.10	9.34	-56.14	-5.98	0.00	0.00	0.00
2,200.00	7.00	279.45	2,196.36	11.34	-68.16	-7.25	0.00	0.00	0.00
2,300.00	7.00	279.45	2,295.61	13.34	-80.18	-8.53	0.00	0.00	0.00
2,400.00	7.00	279.45	2,394.86	15.34	-92.20	-9.81	0.00	0.00	0.00
2,500.00	7.00	279.45	2,494.12	17.34	-104.22	-11.09	0.00	0.00	0.00
2,600.00	7.00	279.45	2,593.37	19.34	-116.24	-12.37	0.00	0.00	0.00
2,700.00	7.00	279.45	2,692.63	21.35	-128.27	-13.65	0.00	0.00	0.00
2,800.00	7.00	279.45	2,791.88	23.35	-140.29	-14.93	0.00	0.00	0.00
2,900.00	7.00	279.45	2,891.14	25.35	-152.31	-16.21	0.00	0.00	0.00
3,000.00	7.00	279.45	2,990.39	27.35	-164.33	-17.49	0.00	0.00	0.00
3,100.00	7.00	279.45	3,089.65	29.35	-176.35	-18.77	0.00	0.00	0.00
3,200.00	7.00	279.45	3,188.90	31.35	-188.37	-20.05	0.00	0.00	0.00
3,300.00	7.00	279.45	3,288.16	33.35	-200.39	-21.33	0.00	0.00	0.00
3,400.00	7.00	279.45	3,387.41	35.35	-212.42	-22.61	0.00	0.00	0.00
3,500.00	7.00	279.45	3,486.67	37.35	-224.44	-23.89	0.00	0.00	0.00
3,600.00	7.00	279.45	3,585.92	39.35	-236.46	-25.17	0.00	0.00	0.00
3,700.00	7.00	279.45	3,685.17	41.35	-248.48	-26.45	0.00	0.00	0.00
3,800.00	7.00	279.45	3,784.43	43.35	-260.50	-27.73	0.00	0.00	0.00
3,900.00	7.00	279.45	3,883.68	45.35	-272.52	-29.01	0.00	0.00	0.00
4,000.00	7.00	279.45	3,982.94	47.35	-284.55	-30.29	0.00	0.00	0.00
4,100.00	7.00	279.45	4,082.19	49.35	-296.57	-31.57	0.00	0.00	0.00
4,200.00	7.00	279.45	4,181.45	51.35	-308.59	-32.85	0.00	0.00	0.00
4,300.00	7.00	279.45	4,280.70	53.35	-320.61	-34.13	0.00	0.00	0.00
4,400.00	7.00	279.45	4,379.96	55.35	-332.63	-35.41	0.00	0.00	0.00
4,500.00	7.00	279.45	4,479.21	57.36	-344.65	-36.69	0.00	0.00	0.00
4,602.72	7.00	279.45	4,581.16	59.41	-357.00	-38.00	0.00	0.00	0.00
4,700.00	6.03	279.45	4,677.82	61.22	-367.89	-39.16	1.00	-1.00	0.00
4,722.30	5.80	279.45	4,700.00	61.60	-370.16	-39.40	1.00	-1.00	0.00
<b>Base of Salt</b>									
4,800.00	5.03	279.45	4,777.35	62.80	-377.39	-40.17	1.00	-1.00	0.00
4,900.00	4.03	279.45	4,877.04	64.10	-385.17	-41.00	1.00	-1.00	0.00
4,973.11	3.30	279.45	4,950.00	64.86	-389.78	-41.49	1.00	-1.00	0.00
<b>Lamar</b>									
5,000.00	3.03	279.45	4,976.85	65.11	-391.24	-41.64	1.00	-1.00	0.00
5,100.00	2.03	279.45	5,076.75	65.83	-395.59	-42.11	1.00	-1.00	0.00
5,173.28	1.29	279.45	5,150.00	66.18	-397.69	-42.33	1.00	-1.00	0.00
<b>Bell Canyon</b>									
5,200.00	1.03	279.45	5,176.71	66.27	-398.22	-42.39	1.00	-1.00	0.00
5,302.71	0.00	0.00	5,279.42	66.42	-399.13	-42.48	1.00	-1.00	0.00
5,400.00	0.00	0.00	5,376.71	66.42	-399.13	-42.48	0.00	0.00	0.00
5,500.00	0.00	0.00	5,476.71	66.42	-399.13	-42.48	0.00	0.00	0.00
5,600.00	0.00	0.00	5,576.71	66.42	-399.13	-42.48	0.00	0.00	0.00
5,700.00	0.00	0.00	5,676.71	66.42	-399.13	-42.48	0.00	0.00	0.00

# Titan Directional Drilling

## Survey Report

<b>Company:</b>	Kaiser-Francis Oil Company	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit North 417H - Slot F
<b>Project:</b>	Permian NM E'83	<b>TVD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Site:</b>	BLUN Pad 18	<b>MD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Well:</b>	Bell Lake Unit North 417H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,800.00	0.00	0.00	5,776.71	66.42	-399.13	-42.48	0.00	0.00	0.00
5,900.00	0.00	0.00	5,876.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,000.00	0.00	0.00	5,976.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,100.00	0.00	0.00	6,076.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,198.29	0.00	0.00	6,175.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>Cherry Canyon</b>									
6,200.00	0.00	0.00	6,176.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,300.00	0.00	0.00	6,276.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,400.00	0.00	0.00	6,376.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,500.00	0.00	0.00	6,476.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,600.00	0.00	0.00	6,576.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,700.00	0.00	0.00	6,676.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,800.00	0.00	0.00	6,776.71	66.42	-399.13	-42.48	0.00	0.00	0.00
6,900.00	0.00	0.00	6,876.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,000.00	0.00	0.00	6,976.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,100.00	0.00	0.00	7,076.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,200.00	0.00	0.00	7,176.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,300.00	0.00	0.00	7,276.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,400.00	0.00	0.00	7,376.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,500.00	0.00	0.00	7,476.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,523.29	0.00	0.00	7,500.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>Brushy Canyon</b>									
7,600.00	0.00	0.00	7,576.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,700.00	0.00	0.00	7,676.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,800.00	0.00	0.00	7,776.71	66.42	-399.13	-42.48	0.00	0.00	0.00
7,900.00	0.00	0.00	7,876.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,000.00	0.00	0.00	7,976.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,100.00	0.00	0.00	8,076.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,200.00	0.00	0.00	8,176.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,300.00	0.00	0.00	8,276.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,400.00	0.00	0.00	8,376.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,500.00	0.00	0.00	8,476.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,523.29	0.00	0.00	8,500.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>Bone Spring</b>									
8,600.00	0.00	0.00	8,576.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,618.29	0.00	0.00	8,595.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>Avalon</b>									
8,700.00	0.00	0.00	8,676.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,800.00	0.00	0.00	8,776.71	66.42	-399.13	-42.48	0.00	0.00	0.00
8,900.00	0.00	0.00	8,876.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,000.00	0.00	0.00	8,976.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,100.00	0.00	0.00	9,076.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,200.00	0.00	0.00	9,176.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,300.00	0.00	0.00	9,276.71	66.42	-399.13	-42.48	0.00	0.00	0.00

# Titan Directional Drilling

## Survey Report

<b>Company:</b>	Kaiser-Francis Oil Company	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit North 417H - Slot F
<b>Project:</b>	Permian NM E'83	<b>TVD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Site:</b>	BLUN Pad 18	<b>MD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Well:</b>	Bell Lake Unit North 417H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,400.00	0.00	0.00	9,376.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,500.00	0.00	0.00	9,476.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,523.29	0.00	0.00	9,500.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>1st Bone Spring</b>									
9,600.00	0.00	0.00	9,576.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,700.00	0.00	0.00	9,676.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,800.00	0.00	0.00	9,776.71	66.42	-399.13	-42.48	0.00	0.00	0.00
9,900.00	0.00	0.00	9,876.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,000.00	0.00	0.00	9,976.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,018.29	0.00	0.00	9,995.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>2nd Bone Spring</b>									
10,100.00	0.00	0.00	10,076.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,200.00	0.00	0.00	10,176.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,300.00	0.00	0.00	10,276.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,400.00	0.00	0.00	10,376.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,500.00	0.00	0.00	10,476.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,523.29	0.00	0.00	10,500.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>3rd Bone Spring Lime</b>									
10,600.00	0.00	0.00	10,576.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,700.00	0.00	0.00	10,676.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,800.00	0.00	0.00	10,776.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,820.29	0.00	0.00	10,797.00	66.42	-399.13	-42.48	0.00	0.00	0.00
<b>7 5/8"</b>									
10,900.00	0.00	0.00	10,876.71	66.42	-399.13	-42.48	0.00	0.00	0.00
10,920.34	0.00	0.00	10,897.04	66.42	-399.13	-42.48	0.00	0.00	0.00
10,933.30	1.30	180.66	10,910.00	66.27	-399.13	-42.34	10.00	10.00	0.00
<b>3rd Bone Spring</b>									
10,950.00	2.97	180.66	10,926.69	65.65	-399.14	-41.72	10.00	10.00	0.00
11,000.00	7.97	180.66	10,976.45	60.89	-399.19	-36.96	10.00	10.00	0.00
11,050.00	12.97	180.66	11,025.60	51.81	-399.30	-27.89	10.00	10.00	0.00
11,100.00	17.97	180.66	11,073.78	38.48	-399.45	-14.58	10.00	10.00	0.00
11,150.00	22.97	180.66	11,120.61	21.01	-399.65	2.88	10.00	10.00	0.00
11,200.00	27.97	180.66	11,165.73	-0.48	-399.90	24.35	10.00	10.00	0.00
11,250.00	32.97	180.66	11,208.82	-25.82	-400.19	49.66	10.00	10.00	0.00
11,300.00	37.97	180.66	11,249.53	-54.82	-400.53	78.63	10.00	10.00	0.00
11,326.46	40.61	180.66	11,270.00	-71.58	-400.72	95.36	10.00	10.00	0.00
<b>Wolfcamp</b>									
11,350.00	42.97	180.66	11,287.55	-87.26	-400.90	111.03	10.00	10.00	0.00
11,400.00	47.97	180.66	11,322.61	-122.89	-401.31	146.62	10.00	10.00	0.00
11,450.00	52.97	180.66	11,354.42	-161.44	-401.76	185.13	10.00	10.00	0.00
11,500.00	57.97	180.66	11,382.76	-202.61	-402.23	226.26	10.00	10.00	0.00
11,550.00	62.97	180.66	11,407.40	-246.10	-402.73	269.69	10.00	10.00	0.00
11,600.00	67.97	180.66	11,428.15	-291.57	-403.26	315.11	10.00	10.00	0.00
11,650.00	72.97	180.66	11,444.87	-338.67	-403.80	362.17	10.00	10.00	0.00

# Titan Directional Drilling

## Survey Report

<b>Company:</b>	Kaiser-Francis Oil Company	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit North 417H - Slot F
<b>Project:</b>	Permian NM E'83	<b>TVD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Site:</b>	BLUN Pad 18	<b>MD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Well:</b>	Bell Lake Unit North 417H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,700.00	77.97	180.66	11,457.41	-387.05	-404.36	410.49	10.00	10.00	0.00
11,750.00	82.97	180.66	11,465.69	-436.34	-404.93	459.73	10.00	10.00	0.00
11,800.00	87.97	180.66	11,469.64	-486.17	-405.50	509.50	10.00	10.00	0.00
11,820.34	90.00	180.66	11,470.00	-506.50	-405.73	529.81	10.00	10.00	0.00
11,900.00	90.00	180.66	11,470.00	-586.16	-406.65	609.38	0.00	0.00	0.00
12,000.00	90.00	180.66	11,470.00	-686.15	-407.81	709.26	0.00	0.00	0.00
12,100.00	90.00	180.66	11,470.00	-786.14	-408.96	809.15	0.00	0.00	0.00
12,200.00	90.00	180.66	11,470.00	-886.14	-410.11	909.03	0.00	0.00	0.00
12,300.00	90.00	180.66	11,470.00	-986.13	-411.26	1,008.92	0.00	0.00	0.00
12,400.00	90.00	180.66	11,470.00	-1,086.12	-412.42	1,108.80	0.00	0.00	0.00
12,500.00	90.00	180.66	11,470.00	-1,186.12	-413.57	1,208.68	0.00	0.00	0.00
12,600.00	90.00	180.66	11,470.00	-1,286.11	-414.72	1,308.57	0.00	0.00	0.00
12,700.00	90.00	180.66	11,470.00	-1,386.10	-415.88	1,408.45	0.00	0.00	0.00
12,800.00	90.00	180.66	11,470.00	-1,486.10	-417.03	1,508.34	0.00	0.00	0.00
12,900.00	90.00	180.66	11,470.00	-1,586.09	-418.18	1,608.22	0.00	0.00	0.00
13,000.00	90.00	180.66	11,470.00	-1,686.08	-419.33	1,708.10	0.00	0.00	0.00
13,100.00	90.00	180.66	11,470.00	-1,786.08	-420.49	1,807.99	0.00	0.00	0.00
13,200.00	90.00	180.66	11,470.00	-1,886.07	-421.64	1,907.87	0.00	0.00	0.00
13,300.00	90.00	180.66	11,470.00	-1,986.06	-422.79	2,007.76	0.00	0.00	0.00
13,400.00	90.00	180.66	11,470.00	-2,086.06	-423.95	2,107.64	0.00	0.00	0.00
13,500.00	90.00	180.66	11,470.00	-2,186.05	-425.10	2,207.52	0.00	0.00	0.00
13,600.00	90.00	180.66	11,470.00	-2,286.04	-426.25	2,307.41	0.00	0.00	0.00
13,700.00	90.00	180.66	11,470.00	-2,386.04	-427.40	2,407.29	0.00	0.00	0.00
13,800.00	90.00	180.66	11,470.00	-2,486.03	-428.56	2,507.18	0.00	0.00	0.00
13,900.00	90.00	180.66	11,470.00	-2,586.02	-429.71	2,607.06	0.00	0.00	0.00
14,000.00	90.00	180.66	11,470.00	-2,686.02	-430.86	2,706.94	0.00	0.00	0.00
14,100.00	90.00	180.66	11,470.00	-2,786.01	-432.01	2,806.83	0.00	0.00	0.00
14,200.00	90.00	180.66	11,470.00	-2,886.00	-433.17	2,906.71	0.00	0.00	0.00
14,300.00	90.00	180.66	11,470.00	-2,986.00	-434.32	3,006.59	0.00	0.00	0.00
14,400.00	90.00	180.66	11,470.00	-3,085.99	-435.47	3,106.48	0.00	0.00	0.00
14,500.00	90.00	180.66	11,470.00	-3,185.98	-436.63	3,206.36	0.00	0.00	0.00
14,600.00	90.00	180.66	11,470.00	-3,285.98	-437.78	3,306.25	0.00	0.00	0.00
14,700.00	90.00	180.66	11,470.00	-3,385.97	-438.93	3,406.13	0.00	0.00	0.00
14,800.00	90.00	180.66	11,470.00	-3,485.96	-440.08	3,506.01	0.00	0.00	0.00
14,900.00	90.00	180.66	11,470.00	-3,585.96	-441.24	3,605.90	0.00	0.00	0.00
15,000.00	90.00	180.66	11,470.00	-3,685.95	-442.39	3,705.78	0.00	0.00	0.00
15,100.00	90.00	180.66	11,470.00	-3,785.94	-443.54	3,805.67	0.00	0.00	0.00
15,200.00	90.00	180.66	11,470.00	-3,885.94	-444.70	3,905.55	0.00	0.00	0.00
15,300.00	90.00	180.66	11,470.00	-3,985.93	-445.85	4,005.43	0.00	0.00	0.00
15,400.00	90.00	180.66	11,470.00	-4,085.92	-447.00	4,105.32	0.00	0.00	0.00
15,500.00	90.00	180.66	11,470.00	-4,185.92	-448.15	4,205.20	0.00	0.00	0.00
15,600.00	90.00	180.66	11,470.00	-4,285.91	-449.31	4,305.09	0.00	0.00	0.00
15,700.00	90.00	180.66	11,470.00	-4,385.90	-450.46	4,404.97	0.00	0.00	0.00
15,800.00	90.00	180.66	11,470.00	-4,485.90	-451.61	4,504.85	0.00	0.00	0.00



# Titan Directional Drilling

## Survey Report

<b>Company:</b>	Kaiser-Francis Oil Company	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit North 417H - Slot F
<b>Project:</b>	Permian NM E'83	<b>TVD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Site:</b>	BLUN Pad 18	<b>MD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Well:</b>	Bell Lake Unit North 417H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,900.00	90.00	180.66	11,470.00	-4,585.89	-452.76	4,604.74	0.00	0.00	0.00
16,000.00	90.00	180.66	11,470.00	-4,685.88	-453.92	4,704.62	0.00	0.00	0.00
16,100.00	90.00	180.66	11,470.00	-4,785.88	-455.07	4,804.51	0.00	0.00	0.00
16,200.00	90.00	180.66	11,470.00	-4,885.87	-456.22	4,904.39	0.00	0.00	0.00
16,300.00	90.00	180.66	11,470.00	-4,985.86	-457.38	5,004.27	0.00	0.00	0.00
16,400.00	90.00	180.66	11,470.00	-5,085.86	-458.53	5,104.16	0.00	0.00	0.00
16,500.00	90.00	180.66	11,470.00	-5,185.85	-459.68	5,204.04	0.00	0.00	0.00
16,600.00	90.00	180.66	11,470.00	-5,285.85	-460.83	5,303.93	0.00	0.00	0.00
16,700.00	90.00	180.66	11,470.00	-5,385.84	-461.99	5,403.81	0.00	0.00	0.00
16,800.00	90.00	180.66	11,470.00	-5,485.83	-463.14	5,503.69	0.00	0.00	0.00
16,900.00	90.00	180.66	11,470.00	-5,585.83	-464.29	5,603.58	0.00	0.00	0.00
17,000.00	90.00	180.66	11,470.00	-5,685.82	-465.45	5,703.46	0.00	0.00	0.00
17,100.00	90.00	180.66	11,470.00	-5,785.81	-466.60	5,803.35	0.00	0.00	0.00
17,200.00	90.00	180.66	11,470.00	-5,885.81	-467.75	5,903.23	0.00	0.00	0.00
17,300.00	90.00	180.66	11,470.00	-5,985.80	-468.90	6,003.11	0.00	0.00	0.00
17,400.00	90.00	180.66	11,470.00	-6,085.79	-470.06	6,103.00	0.00	0.00	0.00
17,500.00	90.00	180.66	11,470.00	-6,185.79	-471.21	6,202.88	0.00	0.00	0.00
17,600.00	90.00	180.66	11,470.00	-6,285.78	-472.36	6,302.76	0.00	0.00	0.00
17,700.00	90.00	180.66	11,470.00	-6,385.77	-473.52	6,402.65	0.00	0.00	0.00
17,800.00	90.00	180.66	11,470.00	-6,485.77	-474.67	6,502.53	0.00	0.00	0.00
17,900.00	90.00	180.66	11,470.00	-6,585.76	-475.82	6,602.42	0.00	0.00	0.00
18,000.00	90.00	180.66	11,470.00	-6,685.75	-476.97	6,702.30	0.00	0.00	0.00
18,100.00	90.00	180.66	11,470.00	-6,785.75	-478.13	6,802.18	0.00	0.00	0.00
18,200.00	90.00	180.66	11,470.00	-6,885.74	-479.28	6,902.07	0.00	0.00	0.00
18,300.00	90.00	180.66	11,470.00	-6,985.73	-480.43	7,001.95	0.00	0.00	0.00
18,400.00	90.00	180.66	11,470.00	-7,085.73	-481.58	7,101.84	0.00	0.00	0.00
18,500.00	90.00	180.66	11,470.00	-7,185.72	-482.74	7,201.72	0.00	0.00	0.00
18,600.00	90.00	180.66	11,470.00	-7,285.71	-483.89	7,301.60	0.00	0.00	0.00
18,700.00	90.00	180.66	11,470.00	-7,385.71	-485.04	7,401.49	0.00	0.00	0.00
18,800.00	90.00	180.66	11,470.00	-7,485.70	-486.20	7,501.37	0.00	0.00	0.00
18,900.00	90.00	180.66	11,470.00	-7,585.69	-487.35	7,601.26	0.00	0.00	0.00
19,000.00	90.00	180.66	11,470.00	-7,685.69	-488.50	7,701.14	0.00	0.00	0.00
19,100.00	90.00	180.66	11,470.00	-7,785.68	-489.65	7,801.02	0.00	0.00	0.00
19,200.00	90.00	180.66	11,470.00	-7,885.67	-490.81	7,900.91	0.00	0.00	0.00
19,300.00	90.00	180.66	11,470.00	-7,985.67	-491.96	8,000.79	0.00	0.00	0.00
19,400.00	90.00	180.66	11,470.00	-8,085.66	-493.11	8,100.68	0.00	0.00	0.00
19,500.00	90.00	180.66	11,470.00	-8,185.65	-494.27	8,200.56	0.00	0.00	0.00
19,601.58	90.00	180.66	11,470.00	-8,287.22	-495.44	8,302.02	0.00	0.00	0.00

# Titan Directional Drilling

## Survey Report

<b>Company:</b>	Kaiser-Francis Oil Company	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit North 417H - Slot F
<b>Project:</b>	Permian NM E'83	<b>TVD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Site:</b>	BLUN Pad 18	<b>MD Reference:</b>	est.GL+KB @ 3448.00usft (planning)
<b>Well:</b>	Bell Lake Unit North 417H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	#417H OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	EDM 5k-14

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,260.00	1,260.00	10 3/4"	10-3/4	13-1/2	
10,820.29	10,797.00	7 5/8"	7-5/8	9-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,200.00	1,200.00	Rustler				
1,600.09	1,600.00	Salado				
1,800.73	1,800.00	Top of Salt				
4,722.30	4,700.00	Base of Salt				
4,973.11	4,950.00	Lamar				
5,173.28	5,150.00	Bell Canyon				
6,198.29	6,175.00	Cherry Canyon				
7,523.29	7,500.00	Brushy Canyon				
8,523.29	8,500.00	Bone Spring				
8,618.29	8,595.00	Avalon				
9,523.29	9,500.00	1st Bone Spring				
10,018.29	9,995.00	2nd Bone Spring				
10,523.29	10,500.00	3rd Bone Spring Lime				
10,933.30	10,910.00	3rd Bone Spring				
11,326.46	11,270.00	Wolfcamp				

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

Submit Original  
to Appropriate  
District Office

## GAS CAPTURE PLAN

Date: 01/10/2020

☒ Original

Operator & OGRID No.: Kaiser-Francis Oil Company, 12361

☐ Amended - Reason for Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Bell Lake Unit North 117H		5-23S-34E		2000	0	
Bell Lake Unit North 217H		5-23S-34E		2000	0	
Bell Lake Unit North 317H		5-23S-34E		2000	0	
Bell Lake Unit North 417H		5-23S-34E		2000	0	
Bell Lake Unit North 118H		5-23S-34E		2000	0	
Bell Lake Unit North 218H		5-23S-34E		2000	0	
Bell Lake Unit North 318H		5-23S-34E		2000	0	
Bell Lake Unit North 418H		5-23S-34E		2000	0	

### Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Targa and will be connected to Targa low/high pressure gathering system located in Lea County, New Mexico. It will require 11,000' of pipeline to connect the facility to low/high pressure gathering system. Kaiser-Francis Oil Company provides (periodically) to Targa a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Kaiser-Francis Oil Company and Targa have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Targa Processing Plant located in Sec. 36, Twn. 19S, Rng. 36E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

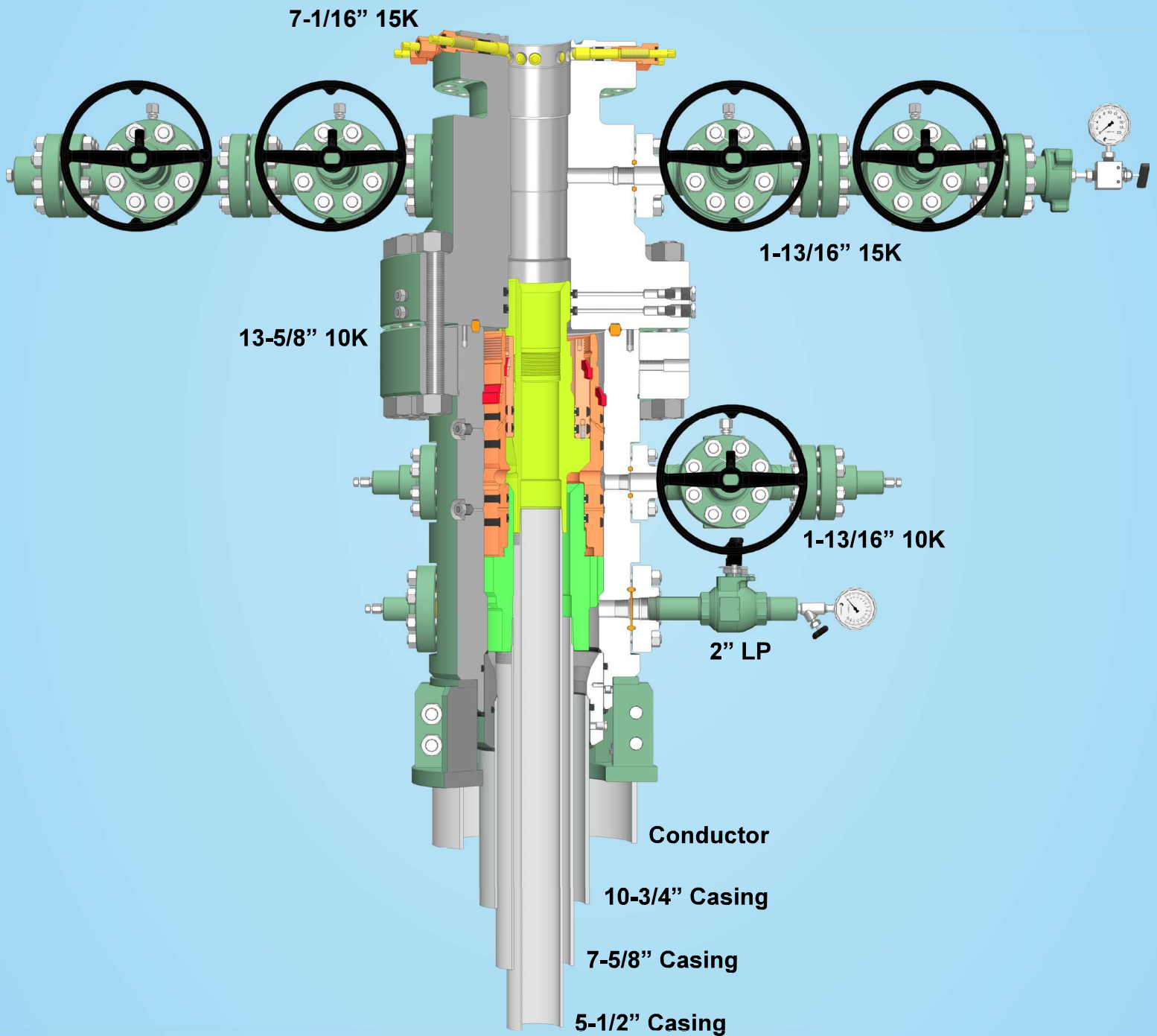
After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Targa system at that time. Based on current information, it is Kaiser-Francis Oil Company's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines





APD ID: 10400054469

Submission Date: 02/25/2020

Highlighted data  
reflects the most  
recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BLUN\_417H\_Existing\_Roads\_20200220112530.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

### ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

**New Road Map:**

BLUN\_Pad\_18\_Access\_Road\_20200218173132.pdf

New road type: RESOURCE

Length: 1080

Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 2

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Road construction requirements and regular maintenance would alleviate potential impacts to the access road from water erosion damage.

New road access plan or profile prepared? N

**New road access plan attachment:**

Access road engineering design? N

**Access road engineering design attachment:**

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Turnout? N

Access surfacing type: OTHER

Access topsoil source: BOTH

Access surfacing type description: Native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description: BLM's caliche pit in SWSW Section 22-T24-R34E or NENE Section 20-T23S-R33E.

Onsite topsoil removal process: The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 160 X 160 area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

**Access turnout map:**

### Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistent with local drainage patterns.

Road Drainage Control Structures (DCS) description: The ditches will be 3' wide with 3:1 slopes

**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

### Section 3 - Location of Existing Wells

Existing Wells Map? YES

**Attach Well map:**

BLUN\_417H\_1\_Mile\_Wells\_Map\_20200220112624.pdf

BLUN\_417H\_1MILE\_WELLS\_20200220112624.pdf

### Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Production facilities are planned for the south side of pad. Plan for initial wells: 2-1000 bbl water tanks and 5 -1000 bbl oil tanks, a temporary 6X20 horizontal 3-phase sep, a 48 X 10 3-phase sep, a 8 X 20 heater treater and a 48X 10 2-phase sep

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

## Section 5 - Location and Types of Water Supply

### Water Source Table

Water source type: OTHER

Describe type: Brine Water

Water source use type: INTERMEDIATE/PRODUCTION  
CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership: Source transport mixture of Federal, State and County.

Water source volume (barrels): 20000

Source volume (acre-feet): 2.57786193

Source volume (gal): 840000

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION  
OTHER  
SURFACE CASING

Describe use type: ROAD/PAD CONSTRUCTION AND

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership: Source transport mixture of Federal, State and County.

Water source volume (barrels): 250000

Source volume (acre-feet): 32.223274

Source volume (gal): 10500000

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

**Water source and transportation map:**

BLUN\_Pad\_18\_Water\_Source\_Map\_20200218173253.pdf

Water source comments: Source transportation land ownership is a mixture of Federal, State and County.

New water well? N

**New Water Well Info**

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

**Aquifer documentation:**

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

**State appropriation permit:**

**Additional information attachment:**

**Section 6 - Construction Materials**

Using any construction materials: YES

Construction Materials description: On site caliche will be used for construction if sufficient. In the event insufficient quantities of caliche are available onsite, caliche will be trucked in from BLM's caliche pit in SWSW Section 22-T24-R34E or NENE Section 20-T23S-R33E.

**Construction Materials source location attachment:**

**Section 7 - Methods for Handling Waste**

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : Weekly

Safe containment description: Trash produced during drilling and completion operations will be collected in a trash container and disposed of properly



Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

**Safe containmant attachment:**

Waste disposal type: HAUL TO COMMERCIAL FACILITY Disposal location ownership: COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility (Sandpoint Landfill (solid materials dump) NW/4 Section 11-T21S-R28E)

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste material will be stored safely and disposed of properly

**Safe containmant attachment:**

Waste disposal type: HAUL TO COMMERCIAL FACILITY Disposal location ownership: COMMERCIAL

Disposal type description:

Disposal location description: Trucked to an approved disposal facility (Carlsbad sewer plant SENW Section 10-T22S-R27E)

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings

Amount of waste: 3900 barrels

Waste disposal frequency : Weekly

Safe containment description: All drilling fluids will be stored safely and disposed of properly

**Safe containmant attachment:**

Waste disposal type: HAUL TO COMMERCIAL FACILITY Disposal location ownership: COMMERCIAL

Disposal type description:

Disposal location description: Cuttings will be hauled to R360's facility located in Section 27-T20S-R32E on US 62/180 at Halfway, NM

**Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.) Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

### Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Cuttings will be stored in roll off bins and hauled to R360 located in Section 27-T20S-R32E on US 62/180 near Halfway.

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

### Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities attachment:**

Comments:

### Section 9 - Well Site Layout

**Well Site Layout Diagram:**

BLUN\_Drlg\_Layout\_20200124081311.PDF

BLUN\_417H\_Wellsite\_Layout\_20200220112737.pdf

Comments:

### Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: NORTH BELL LAKE UNIT

Multiple Well Pad Number: 18

**Recontouring attachment:**

BLUN\_417H\_IR\_20200220112809.pdf

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff and siltation of the surrounding area.

Drainage/Erosion control reclamation: Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Well pad proposed disturbance (acres): 5.96	Well pad interim reclamation (acres): 0.91	Well pad long term disturbance (acres): 5.05
Road proposed disturbance (acres): 0.74	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0.74
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 6.7	Total interim reclamation: 0.91	Total long term disturbance: 5.79

**Disturbance Comments:**

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations

Soil treatment: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Existing Vegetation at the well pad: The historic climax plant community is a grassland dominated by black grama, dropseeds, and blue stems with sand sage and shinnery oak distributed evenly throughout. Current landscape displays mesquite, shinnery oak, yucca, desert sage, fourwing saltbush, snakeweed, and bunch grasses

**Existing Vegetation at the well pad attachment:**

Existing Vegetation Community at the road: Refer to "Existing Vegetation at the well pad"

**Existing Vegetation Community at the road attachment:**

Existing Vegetation Community at the pipeline: Refer to "Existing Vegetation at the well pad"

**Existing Vegetation Community at the pipeline attachment:**

Existing Vegetation Community at other disturbances: None

**Existing Vegetation Community at other disturbances attachment:**

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

**Seedling transplant description attachment:**

Will seed be harvested for use in site reclamation? N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Seed harvest description:

**Seed harvest description attachment:**

**Seed Management**

**Seed Table**

**Seed Summary**

Total pounds/Acre:

**Seed Type**

**Pounds/Acre**

**Seed reclamation attachment:**

**Operator Contact/Responsible Official Contact Info**

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

**Existing invasive species treatment attachment:**

Weed treatment plan description: No invasive species present. Standard regular maintenance to maintain a clear location and road.

**Weed treatment plan attachment:**

Monitoring plan description: Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

**Monitoring plan attachment:**

Success standards: To maintain all disturbed areas as per Gold Book standards

Pit closure description: N/A

**Pit closure attachment:**

**Section 11 - Surface Ownership**

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

**USFS Region:**

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Limestone Basin Properties Ranch LLC Fee Owner Address: 3300 N A St Bldg 1 Ste 220

Phone: (432)695-6353

Email:

Surface use plan certification: NO

**Surface use plan certification document:**

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: Surface Use and Compensation Agreement exists between Limestone Basin Properties and Kaiser-Francis Oil Company

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

**USFS Region:**

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Limestone Basin Properties Ranch LLC Fee Owner Address: 3300 N A St Bldg 1 Ste 220

Phone: (432)695-6353

Email:

Surface use plan certification: NO

**Surface use plan certification document:**

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: Surface Use and Compensation Agreement exists between Limestone Basin Properties Ranch LLC and Kaiser-Francis Oil Company.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

## Section 12 - Other Information

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

## ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted 10/24/2019 by Nik MacPhee (BLM), Eric Hansen (Kaiser-Francis) and Frank

Operator Name: KAISER FRANCIS OIL COMPANY

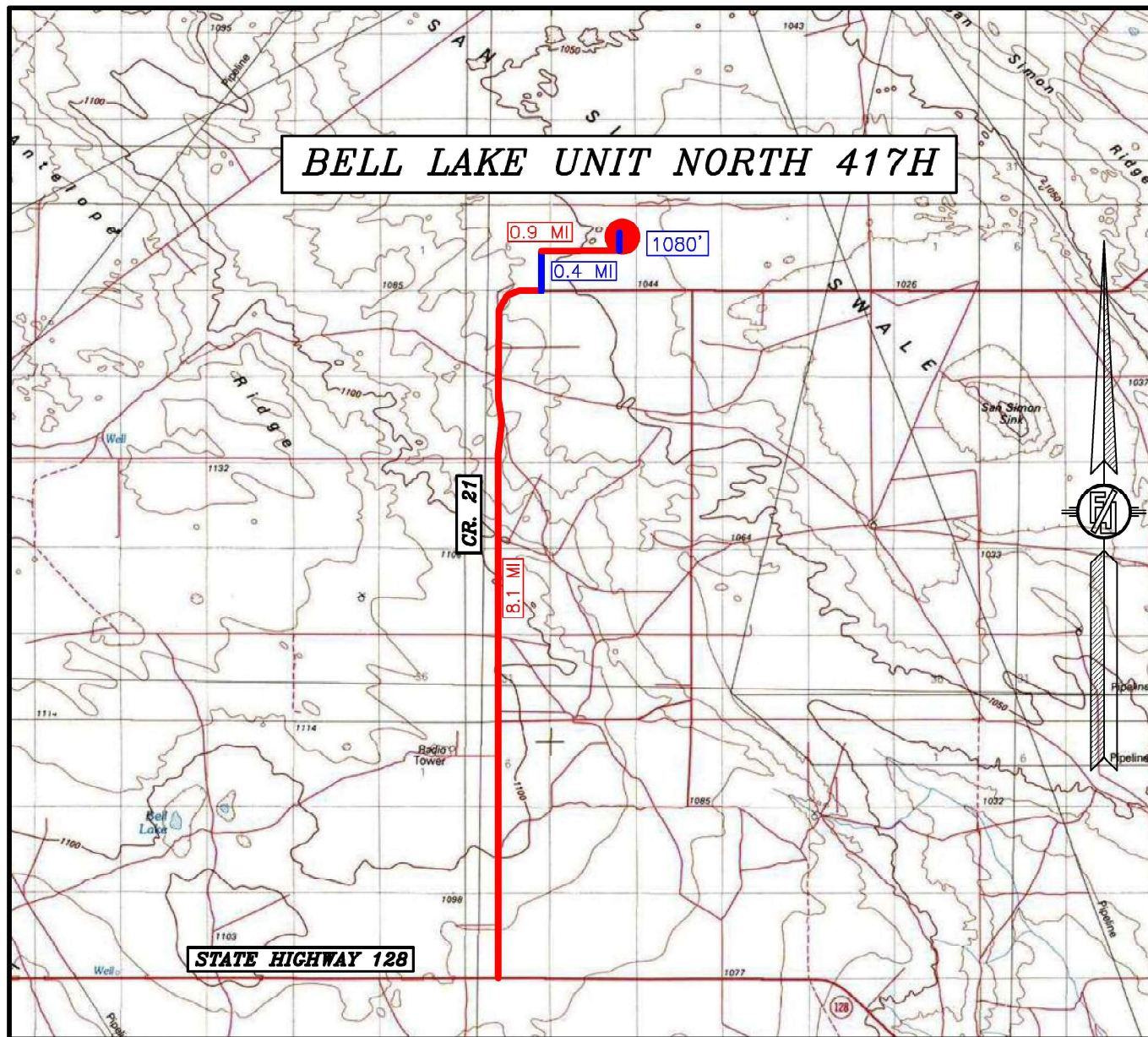
Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Jaramillo (Madron Surveying).

**Other SUPO Attachment**

SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR. 21 (DELAWARE BASIN ROAD) GO NORTH ON CR. 21 APPROX. 8.1 MILES AT END OF CURVE GOING EAST TO THE SECOND CALICHE LEASE ROAD ON LEFT (NORTH)(KAISER FRANCIS SIGNS) TURN LEFT GO NORTH 0.4 OF A MILE TO PIPELINE CORRIDOR, FOLLOW PIPELINE CORRIDOR EAST APPROX. 0.9 OF A MILE TO BEGIN ROAD SURVEY. FOLLOW ROAD SURVEY NORTH APPROX. 1080' TO THE NORTHWEST PAD CORNER FOR THIS LOCATION.

KAISER-FRANCIS OIL CO.  
**BELL LAKE UNIT NORTH 417H**  
LOCATED 2180 FT. FROM THE NORTH LINE  
AND 840 FT. FROM THE EAST LINE OF  
SECTION 5, TOWNSHIP 23 SOUTH,  
RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 19, 2019

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3341

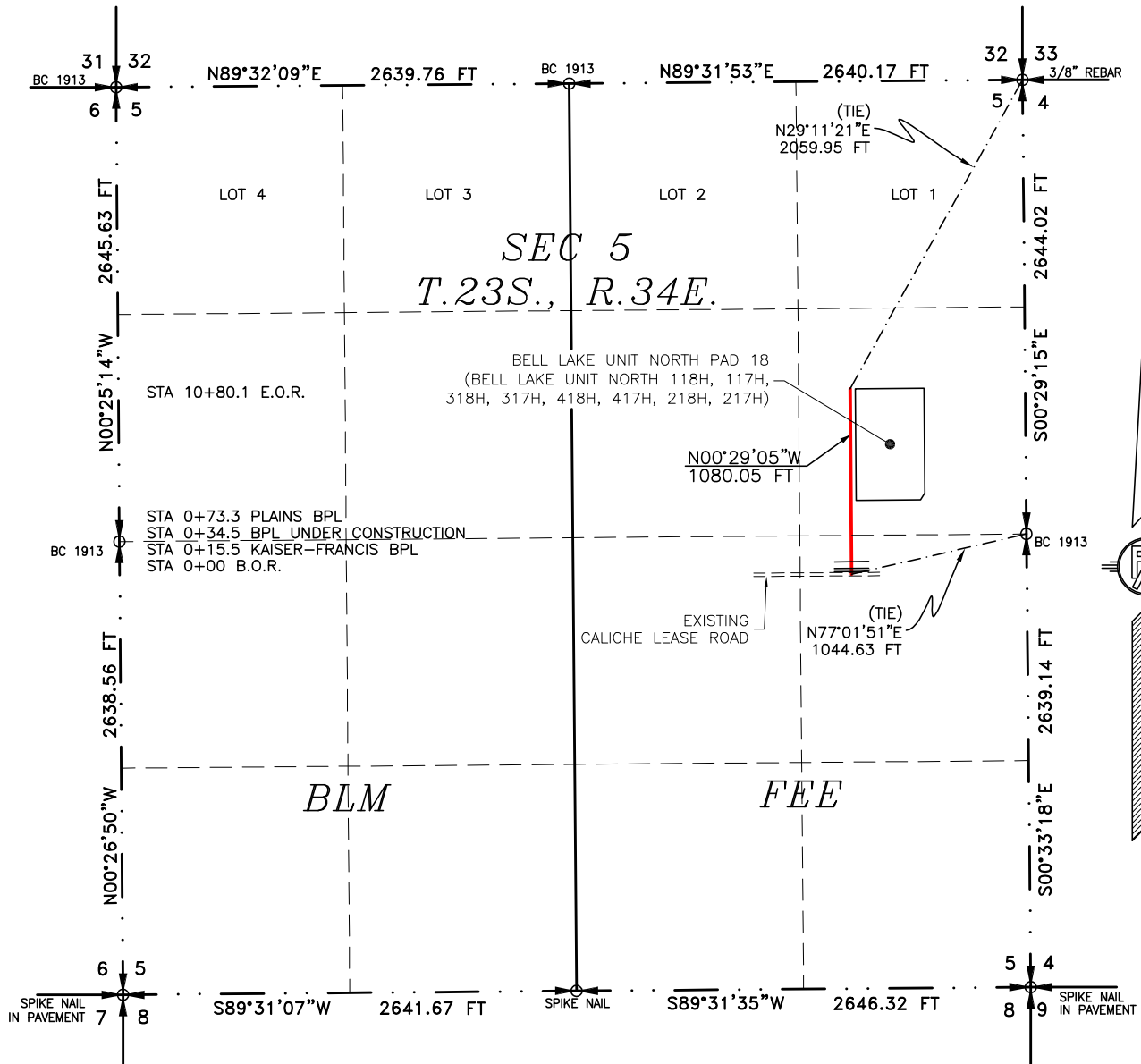
CARLSBAD, NEW MEXICO

SURVEY NO. 7680

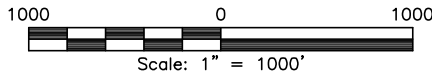


**ACCESS ROAD PLAT**  
ACCESS ROAD TO THE BELL LAKE UNIT NORTH PAD 18  
(BELL LAKE UNIT NORTH 118H, 117H, 318H, 317H, 418H, 417H, 218H, 217H)

KAISER-FRANCIS OIL CO.  
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
DECEMBER 19, 2019



SEE NEXT SHEET (2-2) FOR DESCRIPTION



**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

**SHEET: 1-2**

**MADRON SURVEYING, INC.** 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

**SURVEYOR CERTIFICATE**

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 24 DAY OF JANUARY 2020

FILIMON F. JARAMILLO  
NEW MEXICO  
12797  
JAN 24 2020  
CARLSBAD, NEW MEXICO

MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3341

**SURVEY NO. 7678**

# ACCESS ROAD PLAT

ACCESS ROAD TO THE BELL LAKE UNIT NORTH PAD 18  
(BELL LAKE UNIT NORTH 118H, 117H, 318H, 317H, 418H, 417H, 218H, 217H)

KAISER-FRANCIS OIL CO.  
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
DECEMBER 19, 2019

## DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 SE/4 OF SAID SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M., WHENCE THE EAST QUARTER CORNER OF SAID SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS N77°01'51"E, A DISTANCE OF 1044.63 FEET;

THENCE N00°29'05"W A DISTANCE OF 1080.05 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS N29°11'21"E, A DISTANCE OF 2059.95 FEET;

SAID STRIP OF LAND BEING 1080.05 FEET OR 65.46 RODS IN LENGTH, CONTAINING 0.744 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SE/4	225.84 L.F.	13.69 RODS	0.156 ACRES
SE/4 NE/4	854.21 L.F.	51.77 RODS	0.588 ACRES

## GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING, INC.

## SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 24 DAY OF JANUARY 2020

FILIMON F. JARAMILLO, PLS. 12797  
NEW MEXICO  
12797  
JAN 24 2020

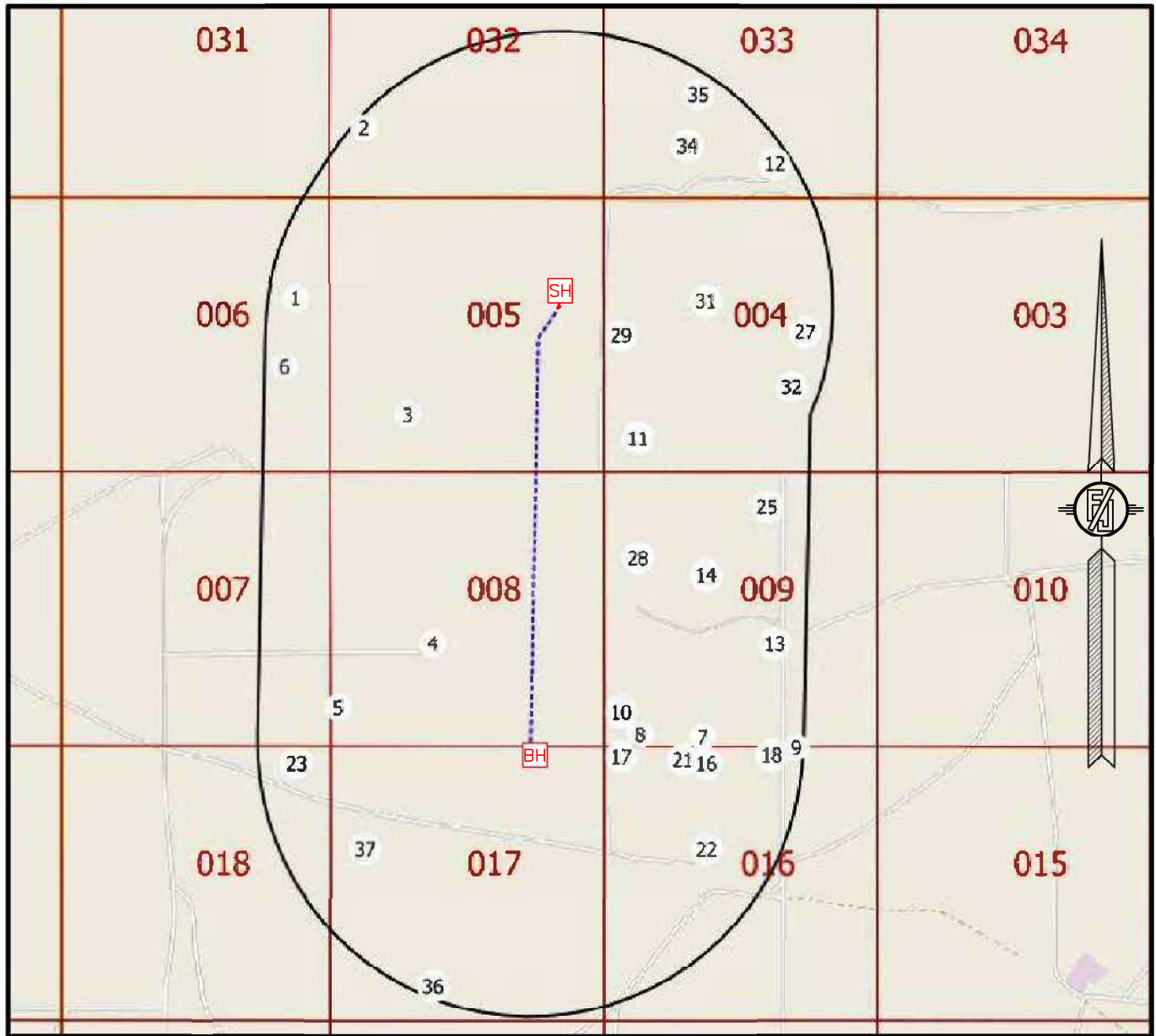
MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3341

SURVEY NO. 7678

301 SOUTH CANAL  
(575) 234-3341  
CARLSBAD, NEW MEXICO

CARLSBAD, NEW MEXICO

# 1-MILE MAP



NOT TO SCALE

- SH SURFACE LOCATION
- BH BOTTOM OF HOLE
- XX WELLS WITHIN 1 MILE
- WELL PATH
- 1-MILE BOUNDARY

KAISER-FRANCIS OIL CO.  
**BELL LAKE UNIT NORTH 417H**  
 LOCATED 2180 FT. FROM THE NORTH LINE  
 AND 840 FT. FROM THE EAST LINE OF  
 SECTION 5, TOWNSHIP 23 SOUTH,  
 RANGE 34 EAST, N.M.P.M.  
 LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 19, 2019

SURVEY NO. 7680

MADRON SURVEYING, INC. 301 SOUTH CANAL  
 (575) 234-3341

CARLSBAD, NEW MEXICO

BLUN 417H

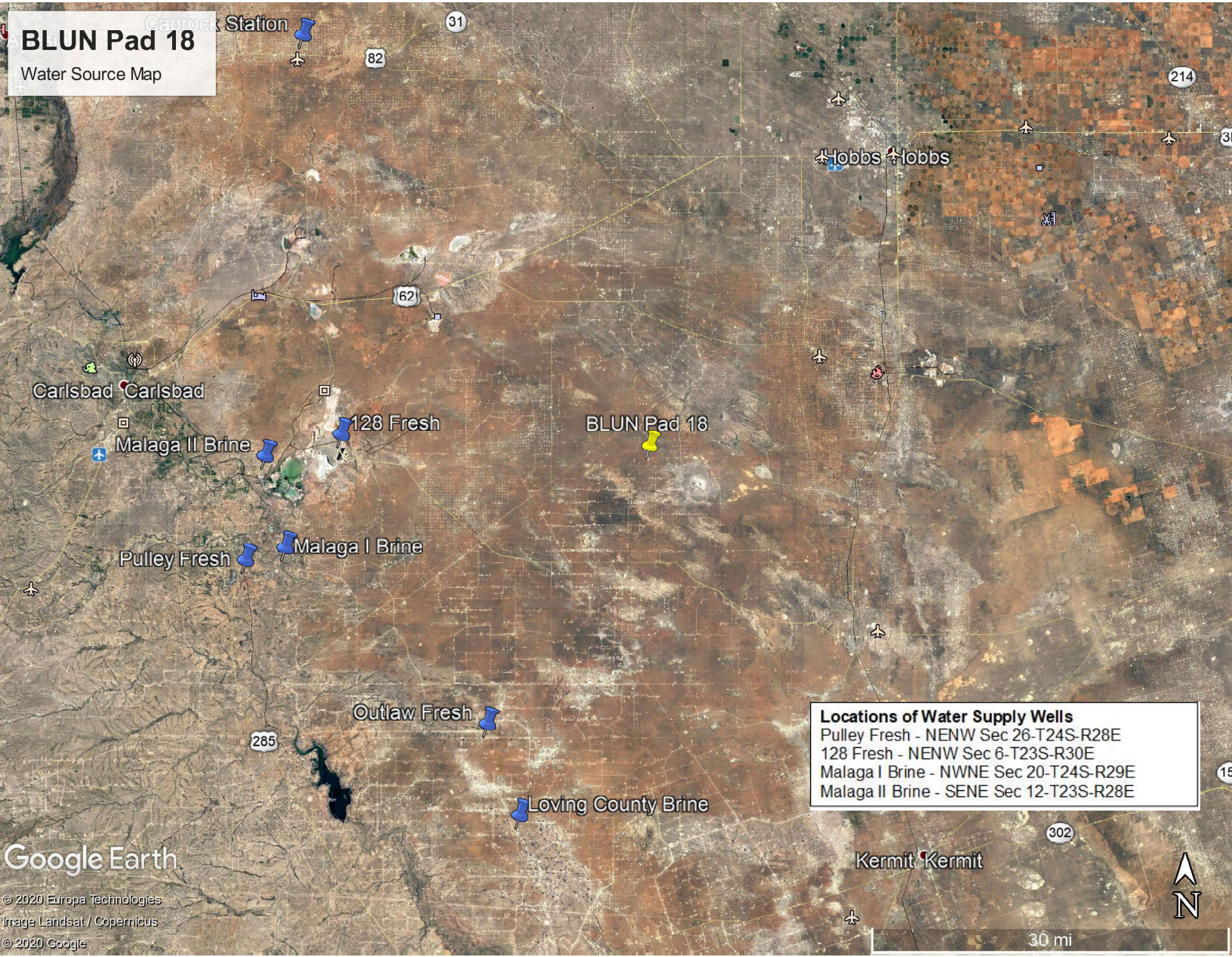
1-Mile Wells

ID	API	wellname	ulstr	ogrid	ogrid_name	dir	meas	depth	depth	status	elev	depth	depth	apr_date	latitude	longitude	pool_id_li
1	30-025-33077	NORTH BELL LAKE FEDERAL #003	H-06-235-34E	12361	KAISER-FRANCIS OIL CO	V	3456	17540	17540	8/25/1995	32.3356552	-103.5028305	[71840] BELL LAKE, DEVONIAN, NORTH (GAS); [96385] BELL LAKE, ELLENBURGER, NORTH (GAS)				
2	30-025-35118	BELL LAKE UNIT #021	L-32-225-34E	12361	KAISER-FRANCIS OIL CO	V	3431	13407	13407	8/9/2000	32.3446426	-103.4985428	[96665] OJO CHISO, MRW, W(GAS); [97630] BELL LAKE, DELW, NE; [97724] WC-025 G-08 S223432L, WLF				
3	30-025-32672	NORTH BELL LAKE FEDERAL #002	N-05-235-34E	12361	KAISER-FRANCIS OIL CO	V	3443	17710	17710	9/21/1994	32.3294563	-103.4958344	[77680] GRAMA RIDGE, MRW, W(GAS); [96385] BELL LAKE, ELLENBURGER, N(GAS); [97630] BELL LAKE, DELW, NE				
4	30-025-24771	NORTH BELL LAKE UNIT 4 #015	K-08-235-34E	12361	KAISER-FRANCIS OIL CO	V	3445	13589	13589	6/6/1974	32.3173599	-103.4942551	[71920] BELL LAKE, MORROW, NORTH (GAS); [96100] SWD, DELAWARE				
5	30-025-44387	LEVIATHAN STATE SWD #001	M-08-235-34E	12361	KAISER-FRANCIS OIL CO	V	3470	0	0	1/24/2018	32.3139656	-103.5002005	[97869] SWD, DEVONIAN-SILLURIAN				
6	30-025-43033	BELL LAKE UNIT NORTH #230H	I-06-235-34E	12361	KAISER-FRANCIS OIL CO	H	3456	18370	10226	1/19/2016	32.332037	-103.503544	[5150] BELL LAKE, BONE SPRING, NORTH				
7	30-025-42650	ANTELOPE 9 B2NC STATE COM #001H	N-09-235-34E	14744	MEWBOURNE OIL CO	H	3423	14880	10343	6/24/2015	32.31241933	-103.4773678	[2207] ANTELOPE RIDGE, BONE SPRING, NW				
8	30-025-42366	ANTELOPE 9 B2MD STATE COM #001H	M-09-235-34E	14744	MEWBOURNE OIL CO	H	3426	14940	10335	1/15/2015	32.31254302	-103.4812784	[2207] ANTELOPE RIDGE, BONE SPRING, NW				
9	30-025-43702	ANTELOPE 9 B30B STATE COM #001H	O-09-235-34E	14744	MEWBOURNE OIL CO	H	3415	0	0	3/17/2017	32.311851	-103.4715001	[2207] ANTELOPE RIDGE, BONE SPRING, NW				
10	30-025-40638	SABLE BSA STATE #001	M-09-235-34E	14744	MEWBOURNE OIL CO	V	3423	285	285	6/22/2012	32.3137245	-103.4824829	[2207] ANTELOPE RIDGE, BONE SPRING, NW				
11	30-025-34605	RIO BLANCO 4 FEDERAL #002	M-04-235-34E	20305	DEVON SFS OPERATING INC	V	3419	13335	13335	4/9/1999	32.3282394	-103.4814301	[96838] DRY AND ABANDONED				
12	30-025-24636	PRE-ONGARD WELL #001	O-33-225-34E	214263	PRE-ONGARD WELL OPERATOR	0	0	0	3840	1/1/1900	32.3427505	-103.4728851					
13	30-025-27805	PRE-ONGARD WELL #001	J-09-235-34E	214263	PRE-ONGARD WELL OPERATOR	0	0	0	11031	1/1/1900	32.3173561	-103.4728699	[2207] ANTELOPE RIDGE, BONE SPRING, NW				
14	30-025-29099	PRE-ONGARD WELL #001	F-09-235-34E	214263	PRE-ONGARD WELL OPERATOR	0	0	0	80	1/1/1900	32.3209801	-103.47715					
16	30-025-40874	GETTYSBURG STATE COM #002H	C-16-235-34E	229137	COG OPERATING LLC	H	3420	17526	10452	12/3/2012	32.3110046	-103.4771347	[2209] ANTELOPE RIDGE, BONE SPRING, WEST				
16	30-025-41236	VETO STATE COM #002H	C-16-235-34E	229137	COG OPERATING LLC	H	3669	15695	8568	6/25/2013	32.311147	-103.4769745	[96322] BELL LAKE, DELAWARE, EAST				
17	30-025-41928	GETTYSBURG STATE COM #001H	D-16-235-34E	229137	COG OPERATING LLC	H	3430	17416	10420	6/19/2014	32.3113899	-103.4824753	[2209] ANTELOPE RIDGE, BONE SPRING, WEST				
18	30-025-40916	GETTYSBURG STATE COM #003H	B-16-235-34E	229137	COG OPERATING LLC	H	3415	17613	10485	1/14/2013	32.31147	-103.4730606	[2209] ANTELOPE RIDGE, BONE SPRING, WEST				
21	30-025-44232	GETTYSBURG STATE COM #015H	C-16-235-34E	229137	COG OPERATING LLC	H	3425	18965	11494	11/30/2017	32.311207	-103.478694	[2209] ANTELOPE RIDGE, BONE SPRING, WEST				
21	30-025-44230	GETTYSBURG STATE COM #013H	C-16-235-34E	229137	COG OPERATING LLC	H	3425	18730	0	11/30/2017	32.311207	-103.47851	[2209] ANTELOPE RIDGE, BONE SPRING, WEST				
21	30-025-44231	GETTYSBURG STATE COM #014H	C-16-235-34E	229137	COG OPERATING LLC	H	3425	18700	11554	11/30/2017	32.311207	-103.478597	[2209] ANTELOPE RIDGE, BONE SPRING, WEST				
22	30-025-35306	JEN AXB STATE #001	F-16-235-34E	25575	EDG Y RESOURCES, INC.	V	3426	20	20	12/18/2000	32.306469	-103.4771271	[96838] DRY AND ABANDONED				
23	30-025-42025	STARCASTER 18 FEDERAL COM #004H	A-18-235-34E	260297	BTA OIL PRODUCERS, LLC	H	3479	14836	10394	8/5/2014	32.3110123	-103.5027847	[5150] BELL LAKE, BONE SPRING, NORTH				
25	30-025-36302	RIO BLANCO 9 STATE #001	B-09-235-34E	6137	DEVON ENERGY PROD CO, LP	V	3402	14654	14654	6/17/2003	32.3246078	-103.4733582	[97328] BELL LAKE, DEVONIAN, NE (GAS)				
27	30-025-44962	RIO BLANCO 4 33 FEDERAL COM #005H	G-04-235-34E	6137	DEVON ENERGY PROD CO, LP	H	3398	17964	10355	5/4/2018	32.3338558	-103.4708602	[97922] WC-025 G-06 S223421L, BONE SPRING				
27	30-025-44830	RIO BLANCO 4 33 FEDERAL COM #039H	G-04-235-34E	6137	DEVON ENERGY PROD CO, LP	H	3398	17850	10336	5/4/2018	32.3338557	-103.4709573	[97922] WC-025 G-06 S223421L, BONE SPRING				
28	30-025-34577	CABALLO 9 STATE #001	E-09-235-34E	6137	DEVON ENERGY PROD CO, LP	D	3419	13450	13435	2/22/1999	32.321888	-103.4814224	[2207] ANTELOPE RIDGE, BS, NW; [70360] ANTELOPE RIDGE, ATKA (GAS); [70450] ANTELOPE RIDGE, STRAWN (GAS); [71920] BELL LAKE, MORROW, NORTH (GAS); [96802] SWD, BELL CANYON-CHERRY CANYON				
29	30-025-44829	RIO BLANCO 4 33 FEDERAL COM #038H	E-04-235-34E	6137	DEVON ENERGY PROD CO, LP	H	3415	18232	10348	5/16/2018	32.3336805	-103.4820895	[97922] WC-025 G-06 S223421L, BONE SPRING				
29	30-025-43245	RIO BLANCO 4 33 FEDERAL COM #002H	E-04-235-34E	6137	DEVON ENERGY PROD CO, LP	H	3416	17201	9856	5/10/2016	32.3336803	-103.4824781	[28430] GRAMA RIDGE, BONE SPRING				
29	30-025-43246	RIO BLANCO 4 33 FEDERAL COM #003H	E-04-235-34E	6137	DEVON ENERGY PROD CO, LP	H	3416	17772	10309	5/10/2016	32.3336802	-103.4823162	[28430] GRAMA RIDGE, BONE SPRING				
29	30-025-43244	RIO BLANCO 4 33 FEDERAL COM #001H	E-04-235-34E	6137	DEVON ENERGY PROD CO, LP	H	3415	16025	8750	5/10/2016	32.3336803	-103.48264	[28430] GRAMA RIDGE, BONE SPRING				
31	30-025-34515	RIO BLANCA 4 FEDERAL COM #001	F-04-235-34E	6137	DEVON ENERGY PROD CO, LP	V	3404	14597	14597	10/2/1998	32.3354988	-103.4771652	[70440] ANTELOPE RIDGE, MRW (GAS); [71920] BELL LAKE, MRW, N(GAS); [97328] BELL LAKE, DEV, NE (GAS)				
32	30-025-36425	RIO BLANCO 4 FEDERAL COM #003	J-04-235-34E	6137	DEVON ENERGY PROD CO, LP	V	3400	14653	14653	8/26/2003	32.3309593	-103.4718094	[96101] SWD, DEVONIAN; [97328] BELL LAKE, DEVONIAN, NE (GAS)				
34	30-025-36359	RIO BLANCO 33 FEDERAL #001	N-33-225-34E	6137	DEVON ENERGY PROD CO, LP	V	3407	14682	14682	6/5/2003	32.3436928	-103.4783325	[70360] ANTELOPE RIDGE, ATOKA (GAS); [97328] BELL LAKE, DEVONIAN, NE (GAS)				
35	30-025-37860	RIO BLANCO 33 FEDERAL #003	K-33-225-34E	6137	DEVON ENERGY PROD CO, LP	V	3406	8506	8600	5/4/2006	32.346386	-103.4776459	[97630] BELL LAKE, DELAWARE, NORTHEAST				
36	30-025-38024	PALOMA BLANCO 17 FEDERAL COM #002	N-17-235-34E	6137	DEVON ENERGY PROD CO, LP	V	3474	13850	13850	7/13/2006	32.2992134	-103.4942169	[70450] ANTELOPE RIDGE, STRAWN (GAS)				
37	30-025-35033	PALOMA BLANCO 17 FEDERAL #001	E-17-235-34E	6137	DEVON ENERGY PROD CO, LP	V	3470	13797	13797	3/27/2000	32.3064728	-103.4985046	[5150] BELL LAKE, BS, N; [5166] BELL LAKE, DELW, N; [71920] BELL LAKE, MRW, N(GAS)				



# BLUN Pad 18

Water Source Map



Locations of Water Supply Wells	
Pulley Fresh	- NENW Sec 26-T24S-R28E
128 Fresh	- NENW Sec 6-T23S-R30E
Malaga I Brine	- NWNE Sec 20-T24S-R29E
Malaga II Brine	- SENE Sec 12-T23S-R28E

Google Earth

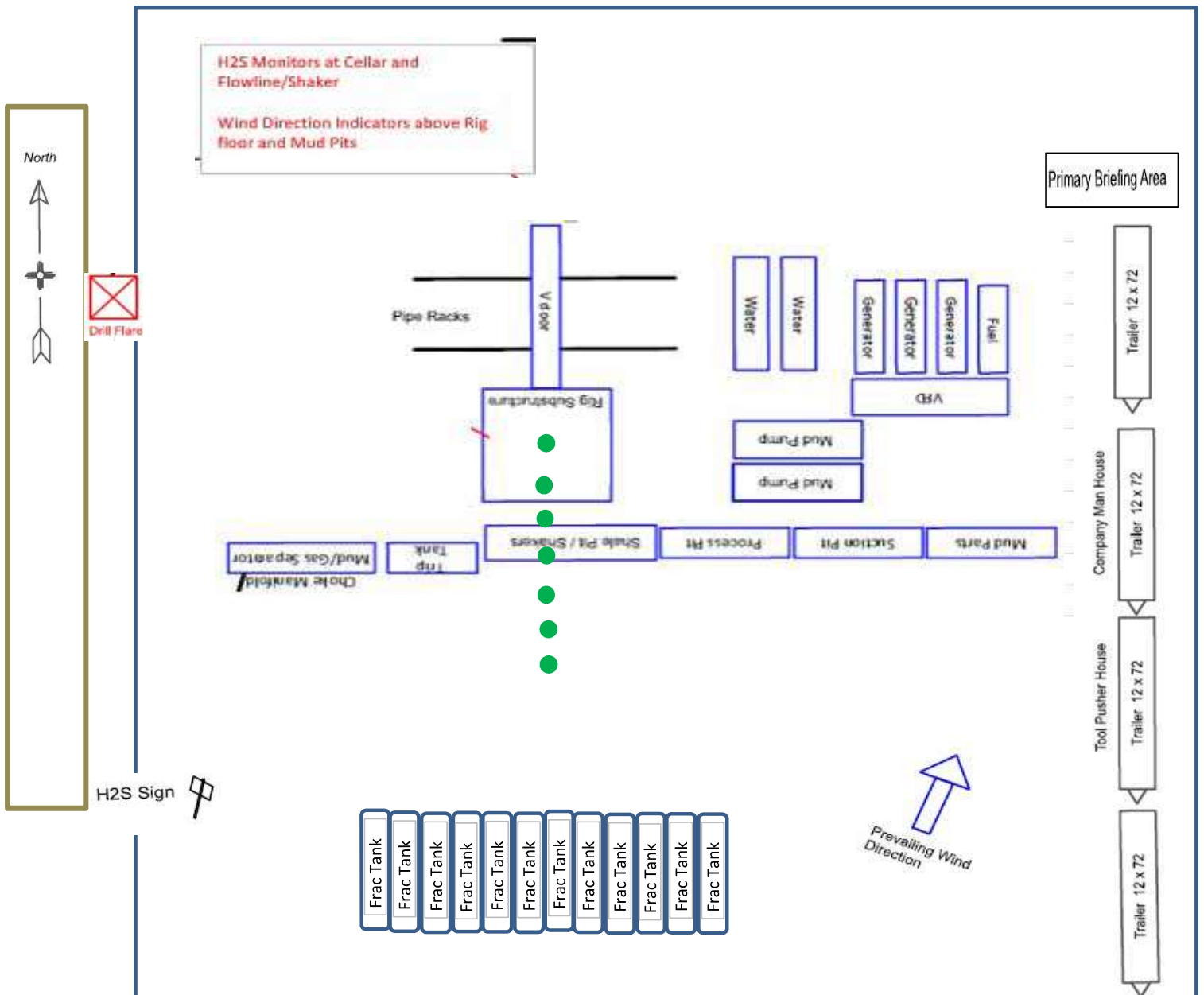
© 2020 Europa Technologies  
Image Landsat / Copernicus  
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**General Drill Site Layout**  
Pad Name: Bell Lake Unit North

Pad Dimensions: 400' X 650'

● Well head

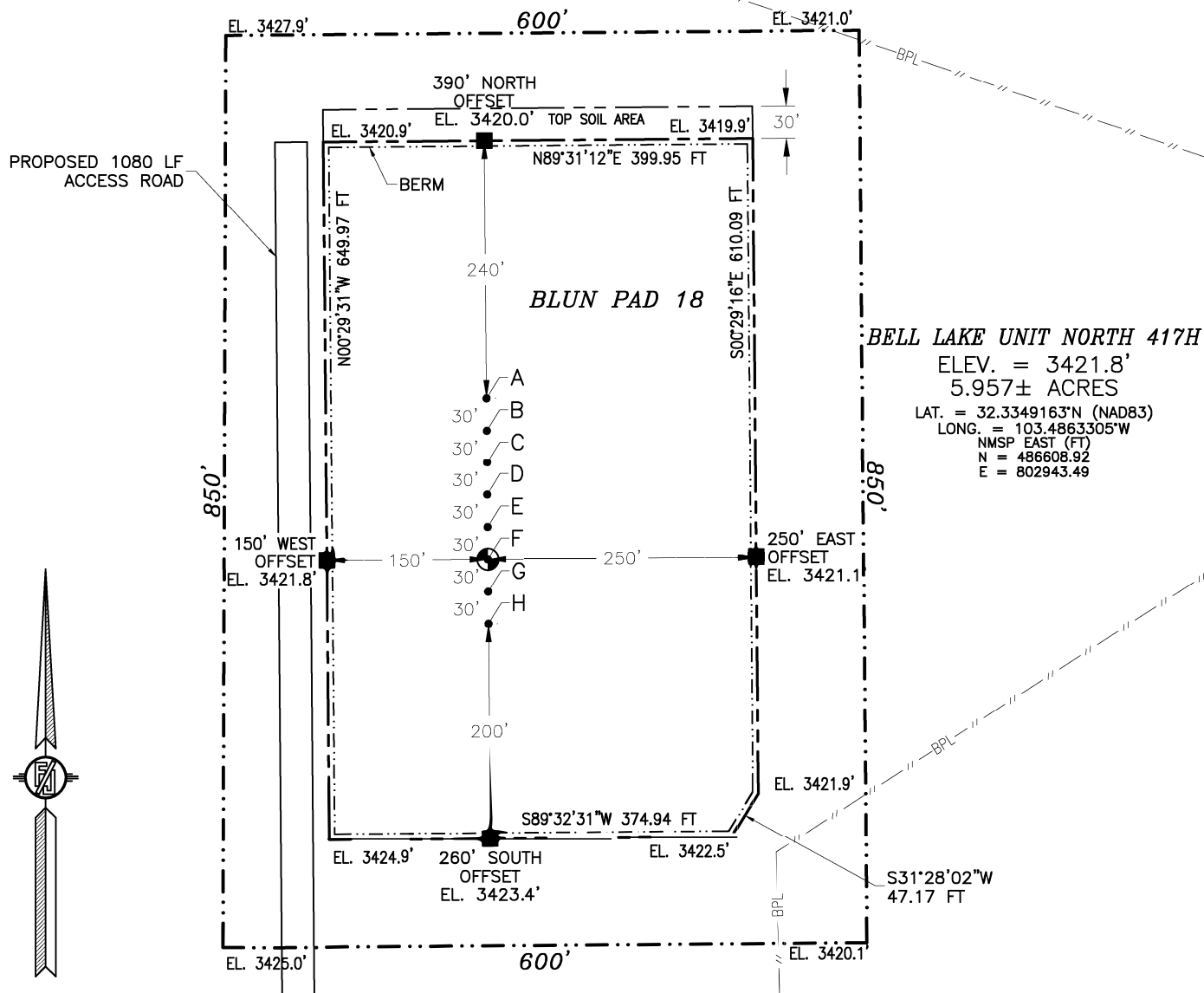


SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

SITE MAP

- A - BELL LAKE UNIT NORTH 118H
- B - BELL LAKE UNIT NORTH 117H
- C - BELL LAKE UNIT NORTH 318H
- D - BELL LAKE UNIT NORTH 317H
- E - BELL LAKE UNIT NORTH 418H
- F - BELL LAKE UNIT NORTH 417H
- G - BELL LAKE UNIT NORTH 218H
- H - BELL LAKE UNIT NORTH 217H

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAVD88.



015 75 150 300

SCALE 1" = 150'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR. 21 (DELAWARE BASIN ROAD) GO NORTH ON CR. 21 APPROX. 8.1 MILES AT END OF CURVE GOING EAST TO THE SECOND CALICHE LEASE ROAD ON LEFT (NORTH)(KAISER FRANCIS SIGNS) TURN LEFT GO NORTH 0.4 OF A MILE TO PIPELINE CORRIDOR, FOLLOW PIPELINE CORRIDOR EAST APPROX. 0.9 OF A MILE TO BEGIN ROAD SURVEY. FOLLOW ROAD SURVEY NORTH APPROX. 1080' TO THE NORTHWEST PAD CORNER FOR THIS LOCATION.

I, FILMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I HAVE BEEN RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS ALL REQUIREMENTS OF THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT IT MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILMON F. JARAMILLO

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3341

CARLSBAD, NEW MEXICO

KAISER-FRANCIS OIL CO.

BELL LAKE UNIT NORTH 417H

LOCATED 2180 FT. FROM THE NORTH LINE  
AND 840 FT. FROM THE EAST LINE OF  
SECTION 5, TOWNSHIP 23 SOUTH,  
RANGE 34 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 19, 2019

SURVEY NO. 7680

SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO  
INTERIM SITE BUILD PLAN

- A - BELL LAKE UNIT NORTH 118H
- B - BELL LAKE UNIT NORTH 117H
- C - BELL LAKE UNIT NORTH 318H
- D - BELL LAKE UNIT NORTH 317H
- E - BELL LAKE UNIT NORTH 418H
- F - BELL LAKE UNIT NORTH 417H
- G - BELL LAKE UNIT NORTH 218H
- H - BELL LAKE UNIT NORTH 217H

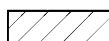
PROPOSED 1080 LF  
ACCESS ROAD

BLUN PAD 18

A  
B  
C  
D  
E  
F  
G  
H

400'

100'



DENOTES INTERIM PAD  
RECLAMATION AREA  
0.907± ACRES



015 75 150 300  
SCALE 1" = 150'

KAISER-FRANCIS OIL CO.  
**BELL LAKE UNIT NORTH 417H**  
LOCATED 2180 FT. FROM THE NORTH LINE  
AND 840 FT. FROM THE EAST LINE OF  
SECTION 5, TOWNSHIP 23 SOUTH,  
RANGE 34 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 19, 2019

SURVEY NO. 7680

MADRON SURVEYING, INC. 301 SOUTH CANAL  
(575) 234-3341

CARLSBAD, NEW MEXICO





APD ID: 10400054469

Submission Date: 02/25/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

Would you like to address long-term produced water disposal? NO

## Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

### Lined pit specifications:

Pit liner description:

### Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

### Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

### Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

### Lined pit reclamation attachment:

Leak detection system description:

### Leak detection system attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Lined pit Monitor description:

**Lined pit Monitor attachment:**

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

**Additional bond information attachment:**

**Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

**Unlined pit specifications:**

Precipitated solids disposal:

Describe precipitated solids disposal:

**Precipitated solids disposal permit:**

Unlined pit precipitated solids disposal schedule:

**Unlined pit precipitated solids disposal schedule attachment:**

Unlined pit reclamation description:

**Unlined pit reclamation attachment:**

Unlined pit Monitor description:

**Unlined pit Monitor attachment:**

Do you propose to put the produced water to beneficial use?

**Beneficial use user confirmation:**

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

**TDS lab results:**

**Geologic and hydrologic evidence:**

**State authorization:**

**Unlined Produced Water Pit Estimated percolation:**

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

**Additional bond information attachment:**

#### Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

**Mineral protection attachment:**

Underground Injection Control (UIC) Permit?

**UIC Permit attachment:**

#### Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

**Surface Discharge NPDES Permit attachment:**

Surface Discharge site facilities information:

**Surface discharge site facilities map:**

#### Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Other PWD type description:

**Other PWD type attachment:**

Have other regulatory requirements been met?

**Other regulatory requirements attachment:**



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Bond Info Data Report

09/21/2020

APD ID: 10400054469

Submission Date: 02/25/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 417H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes

[Show Final Text](#)

### Bond Information

Federal/Indian APD: FED

BLM Bond number: WYB000055

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

**Forest Service reclamation bond attachment:**

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

**Additional reclamation bond information attachment:**