UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD - HOBBS 10|07|2020 RECEIVED

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

5. Lease Serial No.	
NMNM0001244A	

6. If Indian, Allotee or Tribe Name

APPLICATION FOR PERMIT TO DRI	ILL OR F	REENTER		6. If Indian, Allote	e or Tribe l	Name
1b. Type of Well: Oil Well Gas Well Othe	_	Multiple Zone		7. If Unit or CA As BELL LAKE / NM 8. Lease Name and BELL LAKE UNIT	NM 0682 I Well No.	
2. Name of Operator KAISER FRANCIS OIL COMPANY [12361]				9. API Well No.	30-025-	-47849
	o. Phone No 918) 491-0	o. (include area code 000	e)	10. Field and Pool, OJO CHISO/WO		
4. Location of Well (Report location clearly and in accordance with At surface SENW / 1968 FNL / 2230 FWL / LAT 32.33532 At proposed prod. zone SWSE / 100 FSL / 2290 FEL / LAT	2 / LONG -	103.4905378	909938	11. Sec., T. R. M. o SEC 5/T23S/R34		Survey or Area
14. Distance in miles and direction from nearest town or post office 20 miles	*			12. County or Pari	sh	13. State NM
location to nearest 410 feet	6. No of act	res in lease	17. Spacin	g Unit dedicated to	this well	
to nearest well, drilling, completed.	9. Proposed 1470 feet /	Depth 19654 feet		BIA Bond No. in file 'B000055	e	
	2. Approxir 7/01/2020	nate date work will	start*	23. Estimated dura 40 days	tion	
	24. Attach	nments				
The following, completed in accordance with the requirements of O (as applicable)	nshore Oil a	and Gas Order No. 1	, and the H	ydraulic Fracturing	rule per 43	CFR 3162.3-3
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office).	Lands, the	Item 20 above). 5. Operator certific	ation.	s unless covered by a		`
25. Signature (Electronic Submission)		<i>(Printed/Typed)</i> MI DAVIS / Ph: (9	18) 491-0	000	Date 02/18/2	020
Title Regulatory Analyst					1	
Approved by (Signature) (Electronic Submission)	Cody L	(Printed/Typed) _ayton / Ph: (575)	234-5959		Date 09/21/2	020
Title Assistant Field Manager Lands & Minerals		ad Field Office				
Application approval does not warrant or certify that the applicant happlicant to conduct operations thereon. Conditions of approval, if any, are attached.	olds legal o	r equitable title to th	ose rights i	in the subject lease v	which woul	d entitle the
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make of the United States any false, fictitious or fraudulent statements or r					any depart	ment or agency

GCP Rec 10/07/2020

PPROVED WITH CONDITIONS **Approval Date: 09/21/2020**

SL

*(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 wen, 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 directionany 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 wen 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 win 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 conects this information to anow 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.



NAME: Stormi Davis

Email address:

Operator Certification Data Report

Signed on: 02/18/2020

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.

Title: Regulatory Analyst		
Street Address: 106 W. Riverside I	Drive	
City: Carlsbad	State: NM	Zip: 88220
Phone: (575)308-3765		
Email address: nmogrservices@gr	nail.com	
Field Representative	•	
•		
Representative Name:		
•		
Representative Name: Street Address:	State:	Zip:



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

Application Data Report

APD ID: 10400054350 Submission Date: 02/18/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400054350 Tie to previous NOS? N Submission Date: 02/18/2020

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.

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: 416H 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

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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: 16

Well Class: HORIZONTAL

BELL LAKE UNIT

Well Work Type: Drill

Number of Legs: 1

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: 410 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: BLUN 416H C102 20200217111225.pdf

Pay.gov_20200218140642.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: 7673 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	196 8	FNL	223 0	FW L	23S	34E	5	Aliquot SENW	32.33532	- 103.4905 378	LEA	NEW MEXI CO	NEW MEXI CO		NMNM 000058 7	343 9	0	0	N
KOP Leg #1	196 8	FNL	223 0	FW L	23S	34E	5	Aliquot SENW	32.33532	- 103.4905 378	LEA		NEW MEXI CO		NMNM 000124 4A	- 745 8	109 75	108 97	N

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

								act											oroduce e?
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 #1-1	264 0	FSL	214 0	FEL	23S	34E	5	Aliquot NWSE	32.33364 29	- 103.4905 352	LEA	NEW MEXI CO	—	F		<u>-</u> 802 8	118 34	114 67	Υ
PPP Leg #1-2	260 0	FSL	214 0	FEL	23S	34E	5	Aliquot NWSE	32.33353 2	- 103.4905 378	LEA	NEW MEXI CO	—	F	NMNM 000124 4A	- 803 1	118 74	114 70	Y
PPP Leg #1-3	0	FNL	219 0	FEL	23S	34E	8	Aliquot NWNE	32.32638 61	- 103.4906 912	LEA	NEW MEXI CO		F	NMNM 000027 9	- 803 1	144 74	114 70	Υ
PPP Leg #1-4	264 0	FSL	224 0	FEL	23S	34E	8	Aliquot NWSE	32.31914 4	- 103.4908 457	LEA	NEW MEXI CO		S	STATE	- 803 1	171 14	114 70	Υ
EXIT Leg #1	100	FSL	229 0	FEL	23S	34E	8	Aliquot SWSE	32.31215 01	- 103.4909 938	LEA	NEW MEXI CO		s	STATE	- 803 1	196 54	114 70	Y
BHL Leg #1	100	FSL	229 0	FEL	23S	34E	8	Aliquot SWSE	32.31215 01	- 103.4909 938	LEA	NEW MEXI CO		s	STATE	- 803 1	196 54	114 70	Y

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
<u>District II</u>

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410

Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u>
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

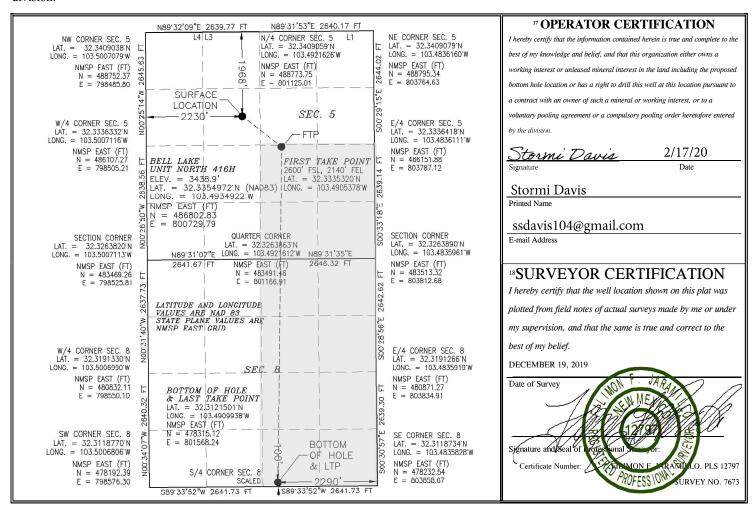
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Numbe	er	² Pool Code	³ Pool Name					
30-025-		98265	Ojo Chiso; Wolfcamp, Sout	hwest				
⁴ Property Code	rty Code ⁵ Property Name							
		BELL LAF	416H					
⁷ OGRID No.		8 O _I	perator Name	⁹ Elevation				
12361	12361 KAISER-FRANCIS OIL COMPANY							

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County						
F	5	23 S	34 E		1968	NORTH	2230	WEST	LEA						
•	•	=	пB	ottom H	ole Location	If Different Fr	om Surface								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County						
0	8	23 S	34 E		100	SOUTH	2290	EAST	LEA						
12 Dedicated Acre	es 13 Joint	or Infill 14	Consolidation	n Code	ode 15 Order No.										
480							R-14602A		R-14602A						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





Pay.gov Payment Confirmation: BLM Oil and Gas Online Payment

1 message

notification@pay.gov <notification@pay.gov> To: nmogrservices@gmail.com

Tue, Feb 18, 2020 at 2:05 PM



An official email of the United States government



Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact BLM OC CBS Customer Service at (303) 236-6795 or BLM OC CBS Customer Service@blm.gov.

Application Name: BLM Oil and Gas Online Payment

Pay.gov Tracking ID: 26NKHPIT Agency Tracking ID: 75955239593

Transaction Type: Sale

Transaction Date: 02/18/2020 04:05:28 PM EST

Account Holder Name: George B Kaiser

Transaction Amount: \$10,230.00

Card Type: Visa

Card Number: ********0061

Company: Kaiser-Francis Oil Company

APD IDs: 10400054350

Lease Numbers: NMNM0001244A

Well Numbers: 416H

Note: You will need your Pay.gov Tracking ID to complete your APD transaction in AFMSS II. Please ensure

you write this number down upon completion of payment.

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.



Pay.gov is a program of the U.S. Department of the Treasury, Bureau of the Fiscal Service



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

Drilling Plan Data Report

09/21/2020

APD ID: 10400054350

Submission Date: 02/18/2020

Highlighted data reflects the most

Operator Name: KAISER FRANCIS OIL COMPANY

recent changes

Well Name: BELL LAKE UNIT NORTH

Well Number: 416H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

ormation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
664408		3439	0	0	OTHER : Surface	NONE	N
664409	RUSTLER	2239	1200	1200	SANDSTONE	NONE	N
664410	SALADO	1839	1600	1600	SALT	NONE	N
664411	TOP SALT	1639	1800	1800	SALT	NONE	N
664412	BASE OF SALT	-1261	4700	4700	SALT	NONE	N
664413	LAMAR	-1511	4950	4950	SANDSTONE	NATURAL GAS, OIL	N
664414	BELL CANYON	-1711	5150	5150	SANDSTONE	NATURAL GAS, OIL	N
664415	CHERRY CANYON	-2736	6175	6175	SANDSTONE	NATURAL GAS, OIL	N
664416	BRUSHY CANYON	-4061	7500	7500	SANDSTONE	NATURAL GAS, OIL	N
664417	BONE SPRING	-5061	8500	8500	LIMESTONE	NATURAL GAS, OIL	N
664418	AVALON SAND	-5156	8595	8595	SANDSTONE	NATURAL GAS, OIL	N
664419	BONE SPRING 1ST	-6061	9500	9500	SANDSTONE	NATURAL GAS, OIL	N
664426	BONE SPRING 2ND	-6556	9995	9995	SANDSTONE	NATURAL GAS, OIL	Y
664433	BONE SPRING LIME	-7061	10500	10500	LIMESTONE	NATURAL GAS, OIL	N
664434	BONE SPRING 3RD	-7471	10910	10910	SANDSTONE	NATURAL GAS, OIL	N
664435	WOLFCAMP	-7831	11270	11270	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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 416H Choke Manifold 20200218135458.pdf

BOP Diagram Attachment:

Annular_BOP_Variance_Request_20200217093535.pdf

Cactus_Flex_Hose_16C_Certification_20200203142843.pdf

BLUN_416H_Wellhead_20200218135517.pdf

BOP stack 10M 5k annular 20200828131001.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	14.7 5	10.75	NEW	API	N	0	1550	0	1550	3439	1889	1550	J-55	40.5	ST&C	2.7	5.3	DRY	8.2	DRY	12.3
2	INTERMED IATE	9.87 5	7.625	NEW	API	N	0	10874	0	10797		-7358	10874	HCP -110	29.7	LT&C	1.3	1.9	DRY	2.4	DRY	2.9
	PRODUCTI ON	6.75	5.5	NEW	API	N	0	19654	0	11470		-8031	19654	P- 110		OTHER - USS Eagle SFH	1.8	2	DRY	2.7	DRY	3.2

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_416H_Casing_Assumptions_20200828131251.pdf

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_416H_Casing_Assumptions_20200828131204.pdf

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_20200217094347.pdf

BLUN_416H_Casing_Assumptions_20200828131230.pdf

Section 4 - Cement

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	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	1087 4	819	2.73	11	2237	25	NeoCem	Extender
INTERMEDIATE	Tail	0	1087 4	580	1.2	15.6	694	25	Halcem	none
PRODUCTION	Lead	9000	1965 4	915	1.22	14.5	1119	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)	НА	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	9							
0	1550	OTHER : Fresh Water	8.4	9							

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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 geoharzards 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_416H_Directional_Plan_20200218140006.pdf

Other proposed operations facets description:

Gas Capture Plan attached

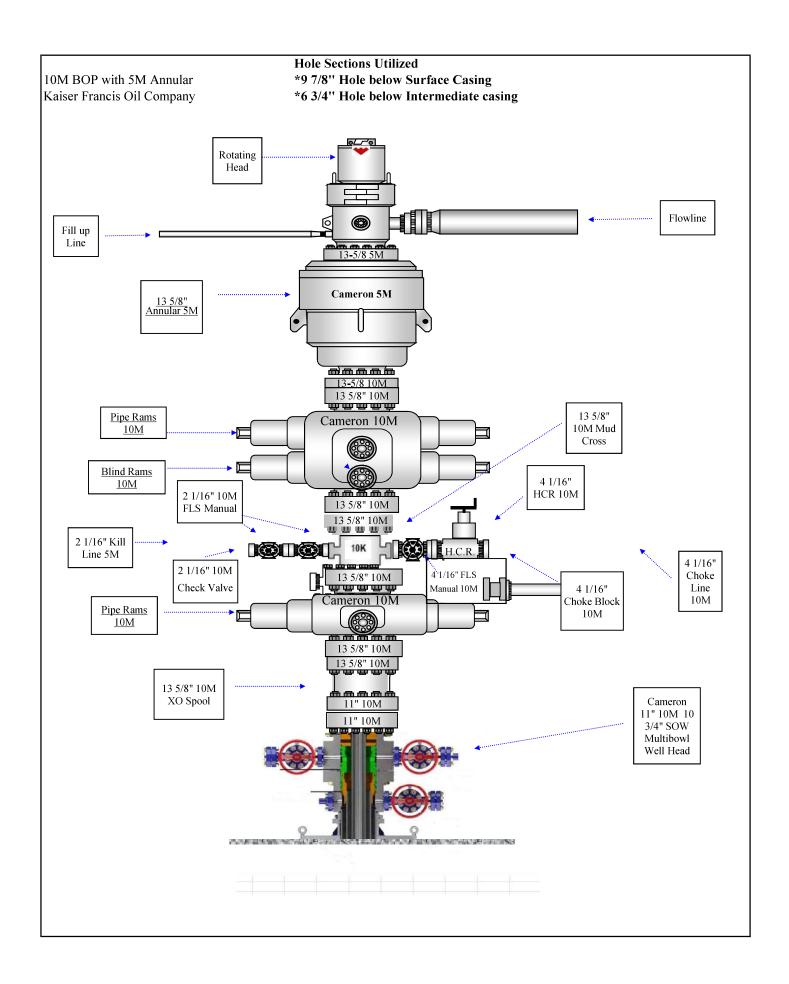
Other proposed operations facets attachment:

BLUN Pad 16 Gas Capture Plan 20200213062342.pdf

Other Variance attachment:

Annular_BOP_Variance_Request_20200217095316.pdf
Cactus_Flex_Hose_16C_Certification_20200203143842.pdf
BLUN_416H_Wellhead_20200218140021.pdf





BLUN 416H

Casing Assumptions

Interval Conductor	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition New	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)			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)
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	10874	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	19654	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	
MECHANICAL PROPERTIES			
Minimum Yield Strength	125,000		psi
Maximum Yield Strength	140,000		psi
Minimum Tensile Strength	130,000		psi
DIMENSIONS			
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
SECTION AREA			
Cross Sectional Area Critical Area	5.828	5.027	sq. in.
Joint Efficiency		86.25	%
PERFORMANCE			
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
MAKE-UP DATA			
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:

- 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).

Legal Notice: All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability, and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

Manuel USS Product Data Sheet 2017 rev26 (Sept)

BLUN 416H

Casing Assumptions

Interval Conductor	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition New	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)			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)
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	10874	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	19654	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

BLUN 416H

Casing Assumptions

Interval Conductor	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition New	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)			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)
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	10874	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
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KAISER-FRANCIS OIL COMPANY HYDROGEN SULFIDE (H₂S) 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_2S , 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 H₂S 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 H₂S 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 H2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H₂S 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 (SO₂). 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 H₂S, 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)

Kaiser-Francis Oil Co.	<u>OFFCE</u> 918/494-0000	<u>MOBILE</u>
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 H₂S, 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:

(H2S concentrations in decimal form)

10,000 ppm +=1.+

1,000 ppm += 1+

100 ppm +=.01+

10 ppm += .001+

X = [(1.589)(concentration)(Q)] (0.6258)Calculation for the 500 ppm ROE:

X+[(0.4546)(concentration)(Q)] (.06258)

EXAMPLE: If a well/facility has been determined to have 150 ppm H₂S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFPD then:

ROE for 100 PPM X=[(1.589)(.0150)(200)] (0.6258)

X=2.65'

ROE for 500 PPM X=[(.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 H₂S safety, shall monitor with detection equipment the H₂S 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 H₂S, 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 H₂S AND SO₂

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

TRAINING:

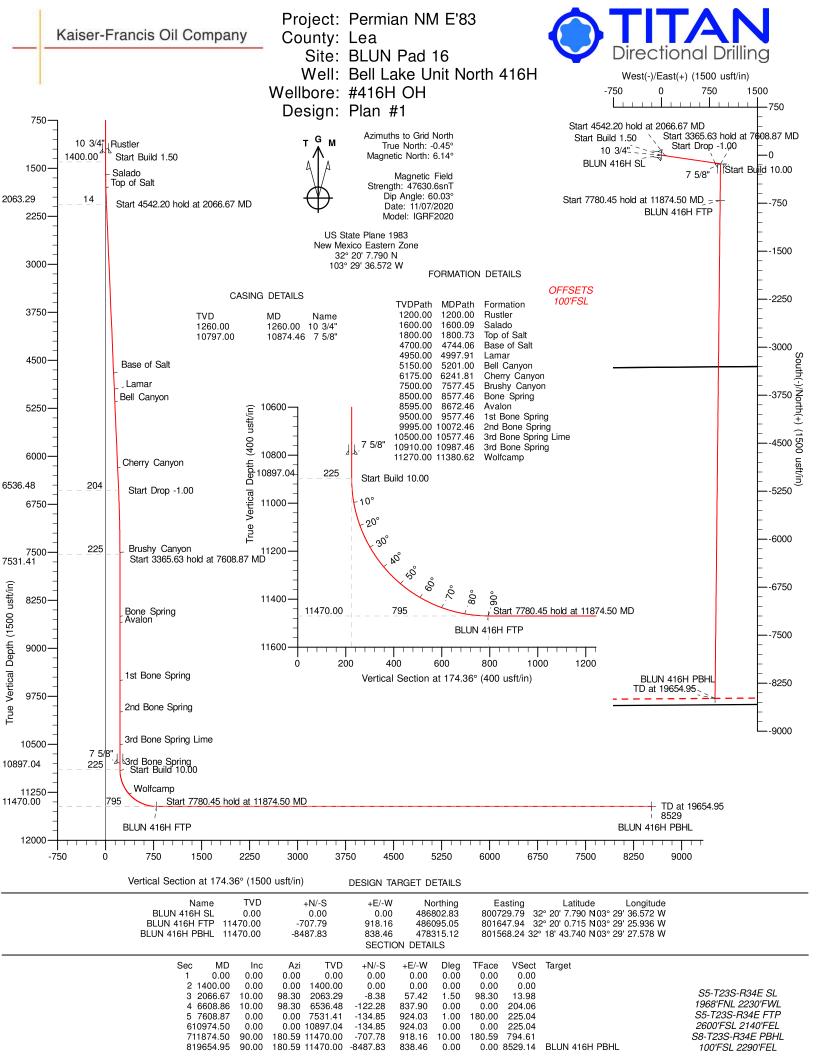
All responders must have training in the detection of H_2S measures for protection against the gas, equipment used for protection and emergency response. Weekly drills by all crews will be conducted and recorded in the IADC daily log. Additionally, responders must be equipped with H_2S monitors at all 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 <u>NOT</u> 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.



Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83 **BLUN Pad 16** Site:

Well: Bell Lake Unit North 416H

#416H OH Wellbore: Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: Well Bell Lake Unit North 416H - Slot E est.GL+KB @ 3464.00usft (planning) est.GL+KB @ 3464.00usft (planning)

Survey Calculation Method: Minimum Curvature

EDM 5k-14 Database:

Permian NM E'83 **Project**

US State Plane 1983 Map System: North American Datum 1983 Geo Datum:

Map Zone: New Mexico Eastern Zone Mean Sea Level

Using geodetic scale factor

Site BLUN Pad 16, Centered on 215H

Northing: 486,712.79 usft Site Position: Latitude: 32° 20' 6.899 N 800,730.42 usft 103° 29' 36.573 W From: Мар Easting: Longitude: 0.00 usft 13-3/16 " **Position Uncertainty:** Slot Radius: **Grid Convergence:** 0.45°

System Datum:

Well Bell Lake Unit North 416H - Slot E

Well Position +N/-S 0.00 usft Northing: 486,802.83 usft Latitude: 32° 20' 7.790 N

+E/-W 0.00 usft Easting: 800,729.79 usft Longitude: 103° 29' 36.572 W 0.00 usft Wellhead Elevation: usft **Ground Level:** 3,438.90 usft **Position Uncertainty**

#416H OH Wellbore Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) 60.03 IGRF2020 11/07/20 6.59 47,630.61147368

Plan #1 Design **Audit Notes: PROTOTYPE** 0.00 Version: Phase: Tie On Depth: **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.00 0.00 0.00 174.36

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)
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
Rustler									
1,260.00	0.00	0.00	1,260.00	0.00	0.00	0.00	0.00	0.00	0.00
10 3/4"									
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	98.30	1,499.99	-0.19	1.30	0.32	1.50	1.50	0.00
1,600.00	3.00	98.30	1,599.91	-0.76	5.18	1.26	1.50	1.50	0.00
1,600.09	3.00	98.30	1,600.00	-0.76	5.18	1.26	0.00	0.00	0.00
Salado									
1,700.00	4.50	98.30	1,699.69	-1.70	11.65	2.84	1.50	1.50	0.00
1,800.00	6.00	98.30	1,799.27	-3.02	20.71	5.04	1.50	1.50	0.00
1,800.73	6.01	98.30	1,800.00	-3.03	20.78	5.06	1.50	1.50	0.00
Top of Salt									
1,900.00	7.50	98.30	1,898.57	-4.72	32.34	7.88	1.50	1.50	0.00
2,000.00	9.00	98.30	1,997.54	-6.79	46.53	11.33	1.50	1.50	0.00

Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83
Site: BLUN Pad 16

Well: Bell Lake Unit North 416H

Wellbore: #416H OH
Design: Plan #1

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:
MD Reference:
North Reference:

est.GL+KB @ 3464.00usft (planning)

Minimum Curvature

Well Bell Lake Unit North 416H - Slot E

est.GL+KB @ 3464.00usft (planning)

Database: EDM 5k-14

lanned 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)
2,066.67	10.00	98.30	2,063.29	-8.38	57.42	13.98	1.50	1.50	0.00
2,100.00	10.00	98.30	2,096.11	-9.22	63.15	15.38	0.00	0.00	0.00
2,200.00	10.00	98.30	2,194.59	-11.72	80.33	19.56	0.00	0.00	0.00
2,300.00	10.00	98.30	2,293.08	-14.23	97.52	23.75	0.00	0.00	0.00
2,400.00	10.00	98.30	2,391.56	-16.74	114.70	27.93	0.00	0.00	0.00
2,500.00	10.00	98.30	2,490.04	-19.25	131.88	32.12	0.00	0.00	0.00
2,600.00	10.00	98.30	2,588.52	-21.75	149.06	36.30	0.00	0.00	0.00
2,700.00	10.00	98.30	2,687.00	-24.26	166.25	40.49	0.00	0.00	0.00
2,800.00	10.00	98.30	2,785.48	-26.77	183.43	44.67	0.00	0.00	0.00
2,900.00	10.00	98.30	2,883.96	-29.28	200.61	48.86	0.00	0.00	0.00
3,000.00	10.00	98.30	2,982.44	-31.79	217.79	53.04	0.00	0.00	0.00
3,100.00	10.00	98.30	3,080.92	-34.29	234.98	57.23	0.00	0.00	0.00
3,200.00	10.00	98.30	3,179.40	-36.80	252.16	61.41	0.00	0.00	0.00
3,300.00	10.00	98.30	3,277.88	-39.31	269.34	65.60	0.00	0.00	0.00
3,400.00	10.00	98.30	3,376.36	-41.82	286.53	69.78	0.00	0.00	0.00
3,500.00	10.00	98.30	3,474.85	-44.32	303.71	73.97	0.00	0.00	0.00
3,600.00	10.00	98.30	3,573.33	-46.83	320.89	78.15	0.00	0.00	0.00
3,700.00	10.00	98.30	3,671.81	-49.34	338.07	82.33	0.00	0.00	0.00
3,800.00	10.00	98.30	3,770.29	-51.85	355.26	86.52	0.00	0.00	0.00
3,900.00	10.00	98.30	3,868.77	-54.35	372.44	90.70	0.00	0.00	0.00
4,000.00	10.00	98.30	3,967.25	-56.86	389.62	94.89	0.00	0.00	0.00
4,100.00	10.00	98.30	4,065.73	-59.37	406.81	99.07	0.00	0.00	0.00
4,200.00	10.00	98.30	4,164.21	-61.88	423.99	103.26	0.00	0.00	0.00
4,300.00	10.00	98.30	4,262.69	-64.38	441.17	107.44	0.00	0.00	0.00
4,400.00	10.00	98.30	4,361.17	-66.89	458.35	111.63	0.00	0.00	0.00
4,500.00	10.00	98.30	4,459.65	-69.40	475.54	115.81	0.00	0.00	0.00
4,600.00	10.00	98.30	4,558.13	-71.91	492.72	120.00	0.00	0.00	0.00
4,700.00	10.00	98.30	4,656.61	-74.42	509.90	124.18	0.00	0.00	0.00
4,744.06	10.00	98.30	4,700.00	-75.52	517.47	126.02	0.00	0.00	0.00
Base of Salt									
4,800.00	10.00	98.30	4,755.10	-76.92	527.09	128.37	0.00	0.00	0.00
4,900.00	10.00	98.30	4,853.58	-79.43	544.27	132.55	0.00	0.00	0.00
4,997.91	10.00	98.30	4,950.00	-81.89	561.09	136.65	0.00	0.00	0.00
Lamar			4.0=====						
5,000.00	10.00	98.30	4,952.06	-81.94	561.45	136.74	0.00	0.00	0.00
5,100.00	10.00	98.30	5,050.54	-84.45	578.63	140.92	0.00	0.00	0.00
5,200.00	10.00	98.30	5,149.02	-86.95	595.82	145.10	0.00	0.00	0.00
5,201.00 Bell Canyon	10.00	98.30	5,150.00	-86.98	595.99	145.15	0.00	0.00	0.00
5,300.00	10.00	98.30	5,247.50	-89.46	613.00	149.29	0.00	0.00	0.00
5,400.00	10.00	98.30	5,345.98	-91.97	630.18	153.47	0.00	0.00	0.00
5,500.00	10.00	98.30	5,444.46	-94.48	647.36	157.66	0.00	0.00	0.00
5,600.00	10.00	98.30	5,542.94	-96.98	664.55	161.84	0.00	0.00	0.00
5,700.00	10.00	98.30	5,641.42	-99.49	681.73	166.03	0.00	0.00	0.00

Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83
Site: BLUN Pad 16

Well: Bell Lake Unit North 416H

Wellbore: #416H OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

est.GL+KB @ 3464.00usft (planning) est.GL+KB @ 3464.00usft (planning)

Well Bell Lake Unit North 416H - Slot E

Grid

Survey Calculation Method: Minimum Curvature

Database: 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	10.00	98.30	5,739.90	-102.00	698.91	170.21	0.00	0.00	0.00
5,900.00	10.00	98.30	5,838.38	-104.51	716.10	174.40	0.00	0.00	0.00
6,000.00	10.00	98.30	5,936.86	-107.02	733.28	178.58	0.00	0.00	0.00
6,100.00	10.00	98.30	6,035.35	-109.52	750.46	182.77	0.00	0.00	0.00
6,200.00		98.30	6,133.83	-112.03	767.64	186.95	0.00	0.00	0.00
6,241.81	10.00	98.30	6,175.00	-113.08	774.83	188.70	0.00	0.00	0.00
Cherry Car	•								
6,300.00	10.00	98.30	6,232.31	-114.54	784.83	191.14	0.00	0.00	0.00
6,400.00	10.00	98.30	6,330.79	-117.05	802.01	195.32	0.00	0.00	0.00
6,500.00		98.30	6,429.27	-119.55	819.19	199.51	0.00	0.00	0.00
6,608.86		98.30	6,536.48	-122.28	837.90	204.06	0.00	0.00	0.00
6,700.00		98.30	6,626.35	-124.47	852.85	207.70	1.00	-1.00	0.00
6,800.00	8.09	98.30	6,725.23	-126.62	867.63	211.30	1.00	-1.00	0.00
6,900.00	7.09	98.30	6,824.35	-128.53	880.70	214.48	1.00	-1.00	0.00
7,000.00	6.09	98.30	6,923.69	-130.19	892.05	217.25	1.00	-1.00	0.00
7,100.00	5.09	98.30	7,023.21	-131.59	901.69	219.60	1.00	-1.00	0.00
7,200.00	4.09	98.30	7,122.89	-132.75	909.60	221.52	1.00	-1.00	0.00
7,300.00	3.09	98.30	7,222.69	-133.65	915.80	223.03	1.00	-1.00	0.00
7,400.00	2.09	98.30	7,322.59	-134.30	920.27	224.12	1.00	-1.00	0.00
7,500.00	1.09	98.30	7,422.55	-134.70	923.01	224.79	1.00	-1.00	0.00
7,577.46	0.31	98.30	7,500.00	-134.84	923.95	225.02	1.00	-1.00	0.00
Brushy Ca	nyon								
7,608.87	0.00	0.00	7,531.41	-134.85	924.03	225.04	1.00	-1.00	0.00
7,700.00	0.00	0.00	7,622.55	-134.85	924.03	225.04	0.00	0.00	0.00
7,800.00	0.00	0.00	7,722.55	-134.85	924.03	225.04	0.00	0.00	0.00
7,900.00	0.00	0.00	7,822.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,000.00	0.00	0.00	7,922.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,100.00	0.00	0.00	8,022.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,200.00	0.00	0.00	8,122.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,300.00	0.00	0.00	8,222.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,400.00	0.00	0.00	8,322.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,500.00	0.00	0.00	8,422.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,577.46	0.00	0.00	8,500.00	-134.85	924.03	225.04	0.00	0.00	0.00
Bone Sprin	ng								
8,600.00	0.00	0.00	8,522.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,672.46 Avalon	0.00	0.00	8,595.00	-134.85	924.03	225.04	0.00	0.00	0.00
8,700.00	0.00	0.00	8,622.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,800.00		0.00	8,722.55	-134.85	924.03	225.04	0.00	0.00	0.00
8,900.00		0.00	8,822.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,000.00		0.00	8,922.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,100.00		0.00	9,022.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,200.00		0.00	9,122.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,300.00	0.00	0.00	9,222.55	-134.85	924.03	225.04	0.00	0.00	0.00

Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83 Site: BLUN Pad 16

Well: Bell Lake Unit North 416H

Wellbore: #416H OH Design: Plan #1

Local Co-ordinate Reference:

Well Bell Lake Unit North 416H - Slot E TVD Reference: est.GL+KB @ 3464.00usft (planning) MD Reference: est.GL+KB @ 3464.00usft (planning)

North Reference:

Survey Calculation Method: Minimum Curvature

EDM 5k-14 Database:

ned 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	9,322.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,500.00	0.00	0.00	9,422.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,577.46	0.00	0.00	9,500.00	-134.85	924.03	225.04	0.00	0.00	0.00
1st Bone Spr			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
9,600.00	0.00	0.00	9,522.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,700.00	0.00	0.00	9,622.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,800.00	0.00	0.00	9,722.55	-134.85	924.03	225.04	0.00	0.00	0.00
9,900.00	0.00	0.00	9,822.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,000.00	0.00	0.00	9,922.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,072.46	0.00	0.00	9,995.00	-134.85	924.03	225.04	0.00	0.00	0.00
2nd Bone Sp	rina								
10,100.00	0.00	0.00	10,022.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,200.00	0.00	0.00	10,122.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,300.00	0.00	0.00	10,222.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,400.00	0.00	0.00	10,322.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,500.00	0.00	0.00	10,422.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,577.46	0.00	0.00	10,500.00	-134.85	924.03	225.04	0.00	0.00	0.00
3rd Bone Spi		0.00	10,000.00	10 1.00	0200	220.01	0.00	0.00	5.00
10,600.00	0.00	0.00	10,522.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,700.00	0.00	0.00	10,622.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,800.00	0.00	0.00	10,722.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,874.46	0.00	0.00	10,797.00	-134.85	924.03	225.04	0.00	0.00	0.00
7 5/8"									
10,900.00	0.00	0.00	10,822.55	-134.85	924.03	225.04	0.00	0.00	0.00
10,974.50	0.00	0.00	10,897.04	-134.85	924.03	225.04	0.00	0.00	0.00
10,987.46	1.30	180.59	10,910.00	-135.00	924.03	225.18	10.00	10.00	0.00
3rd Bone Spi	ring								
11,000.00	2.55	180.59	10,922.54	-135.42	924.03	225.60	10.00	10.00	0.00
11,050.00	7.55	180.59	10,972.33	-139.82	923.98	229.98	10.00	10.00	0.00
11,100.00	12.55	180.59	11,021.54	-148.54	923.89	238.65	10.00	10.00	0.00
11,150.00	17.55	180.59	11,069.81	-161.52	923.76	251.55	10.00	10.00	0.00
11,200.00	22.55	180.59	11,116.77	-178.66	923.58	268.59	10.00	10.00	0.00
11,250.00	27.55	180.59	11,162.05	-199.82	923.37	289.62	10.00	10.00	0.00
11,300.00	32.55	180.59	11,205.32	-224.85	923.11	314.51	10.00	10.00	0.00
11,350.00	37.55	180.59	11,246.24	-253.55	922.82	343.04	10.00	10.00	0.00
11,380.62	40.61	180.59	11,270.00	-272.85	922.62	362.23	10.00	10.00	0.00
Wolfcamp									
11,400.00	42.55	180.59	11,284.50	-285.71	922.49	375.02	10.00	10.00	0.00
11,450.00	47.55	180.59	11,319.81	-321.09	922.12	410.18	10.00	10.00	0.00
11,500.00	52.55	180.59	11,351.91	-359.40	921.73	448.27	10.00	10.00	0.00
11,550.00	57.55	180.59	11,380.54	-400.37	921.31	489.00	10.00	10.00	0.00
11,600.00	62.55	180.59	11,405.49	-443.68	920.87	532.06	10.00	10.00	0.00
11,650.00	67.55	180.59	11,426.58	-489.00	920.40	577.11	10.00	10.00	0.00
11,700.00	72.55	180.59	11,443.63	-535.98	919.92	623.82	10.00	10.00	0.00

Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83
Site: BLUN Pad 16

Well: Bell Lake Unit North 416H

Wellbore: #416H OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

est.GL+KB @ 3464.00usft (planning) est.GL+KB @ 3464.00usft (planning)

Well Bell Lake Unit North 416H - Slot E

Grid

Survey Calculation Method: Minimum Curvature

Database: 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)
11,750.00	77.55	180.59	11,456.53	-584.27	919.43	671.82	10.00	10.00	0.00
11,800.00	82.55	180.59	11,465.16	-633.50	918.92	720.76	10.00	10.00	0.00
11,850.00	87.55	180.59	11,469.48	-683.29	918.41	770.27	10.00	10.00	0.00
11,874.50	90.00	180.59	11,470.00	-707.78	918.16	794.61	10.00	10.00	0.00
11,900.00	90.00	180.59	11,470.00	-733.28	917.90	819.97	0.00	0.00	0.00
12,000.00	90.00	180.59	11,470.00	-833.28	916.88	919.38	0.00	0.00	0.00
12,100.00	90.00	180.59	11,470.00	-933.27	915.85	1,018.79	0.00	0.00	0.00
12,200.00	90.00	180.59	11,470.00	-1,033.27	914.83	1,118.20	0.00	0.00	0.00
12,300.00	90.00	180.59	11,470.00	-1,133.26	913.80	1,217.60	0.00	0.00	0.00
12,400.00	90.00	180.59	11,470.00	-1,233.26	912.78	1,317.01	0.00	0.00	0.00
12,500.00	90.00	180.59	11,470.00	-1,333.25	911.76	1,416.42	0.00	0.00	0.00
12,600.00	90.00	180.59	11,470.00	-1,433.25	910.73	1,515.83	0.00	0.00	0.00
12,700.00	90.00	180.59	11,470.00	-1,533.24	909.71	1,615.24	0.00	0.00	0.00
12,800.00	90.00	180.59	11,470.00	-1,633.24	908.68	1,714.65	0.00	0.00	0.00
12,900.00	90.00	180.59	11,470.00	-1,733.23	907.66	1,814.06	0.00	0.00	0.00
13,000.00	90.00	180.59	11,470.00	-1,833.23	906.63	1,913.47	0.00	0.00	0.00
13,100.00	90.00	180.59	11,470.00	-1,933.22	905.61	2,012.88	0.00	0.00	0.00
13,200.00	90.00	180.59	11,470.00	-2,033.21	904.58	2,112.29	0.00	0.00	0.00
13,300.00	90.00	180.59	11,470.00	-2,133.21	903.56	2,211.70	0.00	0.00	0.00
13,400.00	90.00	180.59	11,470.00	-2,233.20	902.54	2,311.11	0.00	0.00	0.00
13,500.00	90.00	180.59	11,470.00	-2,333.20	901.51	2,410.52	0.00	0.00	0.00
13,600.00	90.00	180.59	11,470.00	-2,333.20 -2,433.19	900.49	2,509.93	0.00	0.00	0.00
13,700.00	90.00	180.59	11,470.00	-2,533.19	899.46	2,609.34	0.00	0.00	0.00
13,800.00	90.00	180.59	11,470.00	-2,533.19 -2,633.18	898.44	2,708.75	0.00	0.00	0.00
13,000.00	90.00	100.59	11,470.00	-2,033.10	030.44	2,700.75	0.00	0.00	0.00
13,900.00	90.00	180.59	11,470.00	-2,733.18	897.41	2,808.16	0.00	0.00	0.00
14,000.00	90.00	180.59	11,470.00	-2,833.17	896.39	2,907.57	0.00	0.00	0.00
14,100.00	90.00	180.59	11,470.00	-2,933.17	895.37	3,006.98	0.00	0.00	0.00
14,200.00	90.00	180.59	11,470.00	-3,033.16	894.34	3,106.39	0.00	0.00	0.00
14,300.00	90.00	180.59	11,470.00	-3,133.16	893.32	3,205.80	0.00	0.00	0.00
14,400.00	90.00	180.59	11,470.00	-3,233.15	892.29	3,305.21	0.00	0.00	0.00
14,500.00	90.00	180.59	11,470.00	-3,333.15	891.27	3,404.62	0.00	0.00	0.00
14,600.00	90.00	180.59	11,470.00	-3,433.14	890.24	3,504.03	0.00	0.00	0.00
14,700.00	90.00	180.59	11,470.00	-3,533.14	889.22	3,603.44	0.00	0.00	0.00
14,800.00	90.00	180.59	11,470.00	-3,633.13	888.19	3,702.85	0.00	0.00	0.00
14,900.00	90.00	180.59	11,470.00	-3,733.13	887.17	3,802.26	0.00	0.00	0.00
15,000.00	90.00	180.59	11,470.00	-3,833.12	886.15	3,901.67	0.00	0.00	0.00
15,100.00	90.00	180.59	11,470.00	-3,933.12	885.12	4,001.08	0.00	0.00	0.00
15,200.00	90.00	180.59	11,470.00	-4,033.11	884.10	4,100.49	0.00	0.00	0.00
15,300.00	90.00	180.59	11,470.00	-4,133.10	883.07	4,199.90	0.00	0.00	0.00
15,400.00	90.00	180.59	11,470.00	-4,233.10	882.05	4,299.31	0.00	0.00	0.00
15,500.00	90.00	180.59	11,470.00	-4,333.09	881.02	4,398.72	0.00	0.00	0.00
15,600.00	90.00	180.59	11,470.00	-4,433.09	880.00	4,498.13	0.00	0.00	0.00
15,700.00	90.00	180.59	11,470.00	-4,533.08	878.98	4,597.53	0.00	0.00	0.00
15,800.00	90.00	180.59	11,470.00	-4,633.08	877.95	4,696.94	0.00	0.00	0.00

Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83
Site: BLUN Pad 16

Well: Bell Lake Unit North 416H

Wellbore: #416H OH
Design: Plan #1

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:
MD Reference:

North Reference:

Database:

Well Bell Lake Unit North 416H - Slot E est.GL+KB @ 3464.00usft (planning) est.GL+KB @ 3464.00usft (planning)

Grid

Minimum Curvature

EDM 5k-14

nned 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	180.59	11,470.00	-4,733.07	876.93	4,796.35	0.00	0.00	0.00
	90.00	180.59	11,470.00		875.90		0.00	0.00	0.00
16,000.00		180.59	11,470.00	-4,833.07	874.88	4,895.76	0.00	0.00	0.00
16,100.00 16,200.00	90.00 90.00	180.59	11,470.00	-4,933.06 -5,033.06	873.85	4,995.17 5,094.58	0.00	0.00	0.00
			11,470.00			5,094.56	0.00		
16,300.00	90.00	180.59	11,470.00	-5,133.05	872.83	5, 195.99	0.00	0.00	0.00
16,400.00	90.00	180.59	11,470.00	-5,233.05	871.80	5,293.40	0.00	0.00	0.00
16,500.00	90.00	180.59	11,470.00	-5,333.04	870.78	5,392.81	0.00	0.00	0.00
16,600.00	90.00	180.59	11,470.00	-5,433.04	869.76	5,492.22	0.00	0.00	0.00
16,700.00	90.00	180.59	11,470.00	-5,533.03	868.73	5,591.63	0.00	0.00	0.00
16,800.00	90.00	180.59	11,470.00	-5,633.03	867.71	5,691.04	0.00	0.00	0.00
16,900.00	90.00	180.59	11,470.00	-5,733.02	866.68	5,790.45	0.00	0.00	0.00
17,000.00	90.00	180.59	11,470.00	-5,833.02	865.66	5,889.86	0.00	0.00	0.00
17,100.00	90.00	180.59	11,470.00	-5,933.01	864.63	5,989.27	0.00	0.00	0.00
17,200.00	90.00	180.59	11,470.00	-6,033.01	863.61	6,088.68	0.00	0.00	0.00
17,300.00	90.00	180.59	11,470.00	-6,133.00	862.59	6,188.09	0.00	0.00	0.00
17,400.00	90.00	180.59	11,470.00	-6,232.99	861.56	6,287.50	0.00	0.00	0.00
17,500.00	90.00	180.59	11,470.00	-6,332.99	860.54	6,386.91	0.00	0.00	0.00
17,600.00	90.00	180.59	11,470.00	-6,432.98	859.51	6,486.32	0.00	0.00	0.00
17,700.00	90.00	180.59	11,470.00	-6,532.98	858.49	6,585.73	0.00	0.00	0.00
17,800.00	90.00	180.59	11,470.00	-6,632.97	857.46	6,685.14	0.00	0.00	0.00
17,900.00	90.00	180.59	11,470.00	-6,732.97	856.44	6,784.55	0.00	0.00	0.00
18,000.00	90.00	180.59	11,470.00	-6,832.96	855.41	6,883.96	0.00	0.00	0.00
18,100.00	90.00	180.59	11,470.00	-6,932.96	854.39	6,983.37	0.00	0.00	0.00
18,200.00	90.00	180.59	11,470.00	-7,032.95	853.37	7,082.78	0.00	0.00	0.00
18,300.00	90.00	180.59	11,470.00	-7,132.95	852.34	7,182.19	0.00	0.00	0.00
40,400,00	00.00	100 50	44 470 00	7 000 04	054.00	7 004 00	0.00	0.00	0.00
18,400.00	90.00 90.00	180.59 180.59	11,470.00 11,470.00	-7,232.94 -7,332.94	851.32 850.29	7,281.60 7,381.01	0.00 0.00	0.00 0.00	0.00 0.00
18,500.00 18,600.00	90.00	180.59	11,470.00	-7,332.94 -7,432.93	850.29 849.27	7,381.01	0.00	0.00	0.00
18,700.00	90.00	180.59	11,470.00	-7,432.93 -7,532.93	849.27 848.24	7,480.42	0.00	0.00	0.00
18,800.00	90.00	180.59	11,470.00	-7,632.93 -7,632.92	847.22	7,679.03	0.00	0.00	0.00
40.000.5		400 ==	44 4=0 00	7 700 00	0.000	7 770 05			
18,900.00	90.00	180.59	11,470.00	-7,732.92	846.20	7,778.65	0.00	0.00	0.00
19,000.00	90.00	180.59	11,470.00	-7,832.91	845.17	7,878.06	0.00	0.00	0.00
19,100.00	90.00	180.59	11,470.00	-7,932.91	844.15	7,977.46	0.00	0.00	0.00
19,200.00	90.00	180.59	11,470.00	-8,032.90	843.12	8,076.87	0.00	0.00	0.00
19,300.00	90.00	180.59	11,470.00	-8,132.89	842.10	8,176.28	0.00	0.00	0.00
19,400.00	90.00	180.59	11,470.00	-8,232.89	841.07	8,275.69	0.00	0.00	0.00
19,500.00	90.00	180.59	11,470.00	-8,332.88	840.05	8,375.10	0.00	0.00	0.00
19,600.00	90.00	180.59	11,470.00	-8,432.88	839.02	8,474.51	0.00	0.00	0.00
19,654.95	90.00	180.59	11,470.00	-8,487.83	838.46	8,529.14	0.00	0.00	0.00

Survey Report

Company: Kaiser-Francis Oil Company

Project: Permian NM E'83
Site: BLUN Pad 16

Well: Bell Lake Unit North 416H

Wellbore: #416H OH
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

est.GL+KB @ 3464.00usft (planning) est.GL+KB @ 3464.00usft (planning)

Well Bell Lake Unit North 416H - Slot E

Grid

Survey Calculation Method: Minimum Curvature

Database: EDM 5k-14

Casing Points							
	Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter	
	(usft)	(usft)		Name	(")	(")	
	1,260.00	1,260.00	10 3/4"		10-3/4	14-3/4	
	10,874.46	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				
	4,744.06	4,700.00	Base of Salt				
	4,997.91	4,950.00	Lamar				
	5,201.00	5,150.00	Bell Canyon				
	6,241.81	6,175.00	Cherry Canyon				
	7,577.46	7,500.00	Brushy Canyon				
	8,577.46	8,500.00	Bone Spring				
	8,672.46	8,595.00	Avalon				
	9,577.46	9,500.00	1st Bone Spring				
	10,072.46	9,995.00	2nd Bone Spring				
	10,577.46	10,500.00	3rd Bone Spring Lime				
	10,987.46	10,910.00	3rd Bone Spring				
	11,380.62	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

Date: 01/10/2020

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

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

GAS CAPTURE PLAN

⊠ 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, recomplete 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	Footages	Expected	Flared or	Comments
		(ULSTR)		MCF/D	Vented	
Bell Lake Unit North 116H		5-23S-34E		2000	0	
Bell Lake Unit North 216H		5-23S-34E		2000	0	
Bell Lake Unit North 316H		5-23S-34E		2000	0	
Bell Lake Unit North 416H		5-23S-34E		2000	0	
Bell Lake Unit North 115H		5-23S-34E		2000	0	
Bell Lake Unit North 215H		5-23S-34E		2000	0	
Bell Lake Unit North 315H		5-23S-34E		2000	0	
Bell Lake Unit North 415H		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 <u>Targa</u> and will be connected to <u>Targa</u> low/high pressure gathering system located in <u>Lea_ County</u>, New Mexico. It will require <u>11,000</u>' of pipeline to connect the facility to low/high pressure gathering system. <u>Kaiser-Francis Oil Company</u> provides (periodically) to <u>Targa</u> a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, <u>Kaiser-Francis Oil Company</u> and <u>Targa</u> have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at <u>Targa</u> Processing Plant located in Sec. <u>36_, Twn.__19S_, Rng._36E, __Lea__</u> 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 <u>Targa</u> system at that time. Based on current information, it is <u>Kaiser-Francis Oil Company's</u> 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

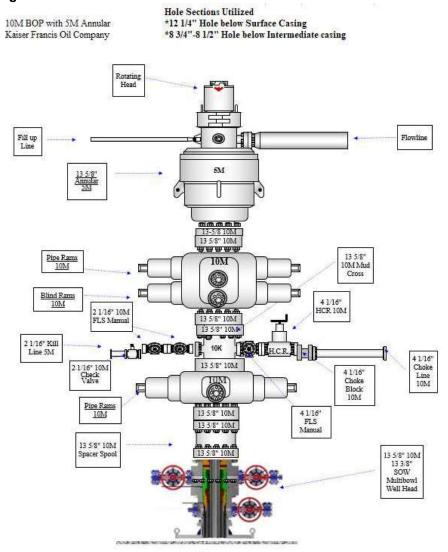
Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

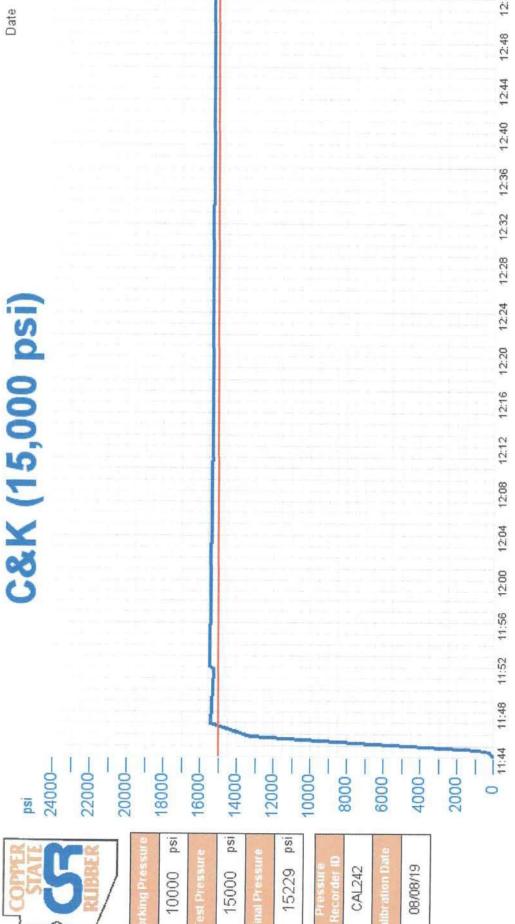
- Power Generation On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
 - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
 - o Plants are expensive,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

Kaiser Francis Oil Co. 10K Annular Variance Request

Kaiser Francis Oil Co. request a variance to use a 5K psi annular BOP with a 10K BOP stack. Attached are Kaiser Francis Oil Co. minimum processes required to assure a proper shut-in while drilling, tripping, open hole, and moving BHA through the BOPs. A minimum of one well control drill will be performed weekly per tour, to regulate compliance with well control procedures and plans. Drills will be determined by operations, and will variate on drills conducted. Drills will consist of but are not limited to pit, trip, open hole, and choke drills. This well control plan will be available for review to all rig personnel. A copy of well control plan will be located in the Kaiser Francis Oil Co. representative's office on location, and on the rig floor during drilling operations. All BOP equipment will be tested per Onshore O&G Order No. 2 with the exception of the 5K annular which will be tested to 70% of it rated working pressure.

A. BOP Diagram





•		4-1/16" 10,000# API FLANGE	4-1/16" 10,000# API SWIVEL FLANG V	35 ft 0.00 in	3"	32367	33974A
	70	End Fitting B	End Fitting A	Length	Hose I.D.	Work Order	Serial

Ruben Martinez

Signature/Date

QA-91 Rev 0 01/18

Kyle Winters

Signature/Date

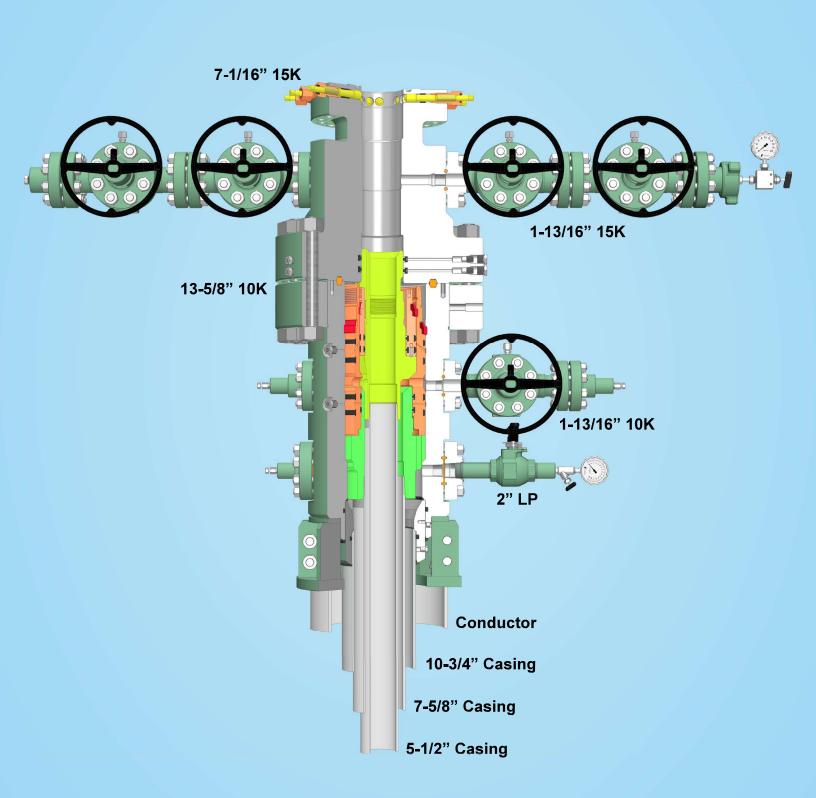
Robert Sylde IF

>

Signature/Date







Kaiser-Francis Oil Company



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

SUPO Data Report

APD ID: 10400054350

Submission Date: 02/18/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Highlighted data reflects the most recent changes

Well Name: BELL LAKE UNIT NORTH

Well Number: 416H

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 416H Existing Roads 20200218140037.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_416H_Access_Road_20200218140050.pdf

New road type: RESOURCE

Length: 3867 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:

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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_416H__Mile_Wells_20200218140117.pdf
BLUN 416H 1 Mile Wells Map 20200218140117.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

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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

Water source volume (barrels): 20000

Source volume (gal): 840000

Describe transportation land ownership: Source transportation

mixture of Federal, State and County. Source volume (acre-feet): 2.57786193

(ga.). 0 .000

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION

OTHER Describe use type: ROAD/PAD CONSTRUCTION AND

SURFACE 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

Water source volume (barrels): 250000

Source volume (gal): 10500000

Describe transportation land ownership: Source transportation

mixture of Federal, State and County. Source volume (acre-feet): 32.223274

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Water source and transportation map:

BLUN Pad 16 Water Source Map 20200213062911.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:

Aguifer 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:

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: One Time Only

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

Page 4 of 10

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Safe containment attachment:

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

FACILITY

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: One Time Only

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

Safe containment attachment:

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

FACILITY

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: One Time Only

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

Safe containment attachment:

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

FACILITY

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

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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_416H_Wellsite_Layout_20200218140228.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: 16

Recontouring attachment:

BLUN_416H_IR_20200218140243.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.

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Well pad proposed disturbance (acres):

5.96

Road proposed disturbance (acres):

1.638

Powerline proposed disturbance (acres):

0

Pipeline proposed disturbance (acres): 0

Other proposed disturbance (acres): 0

Total proposed disturbance: 7.598

Well pad interim reclamation (acres):

0.91

Road interim reclamation (acres): 0

Powerline interim reclamation (acres): 0

Pipeline interim reclamation (acres): 0

Other interim reclamation (acres): 0

Total interim reclamation: 0.91

Well pad long term disturbance (acres):

5.05

Road long term disturbance (acres):

1.638

Powerline long term disturbance (acres):

0

Pipeline long term disturbance (acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 6.688

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

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary
Seed Type Pounds/Acre

Total 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: 416H
Disturbance type: WELL PAD	
Describe:	
Surface Owner: BUREAU OF LAND MANAGEMENT	
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:
Disturbance type: NEW ACCESS ROAD	
Describe:	
Surface Owner: BUREAU OF LAND MANAGEMENT, STATE	GOVERNMENT
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office: NM STATE LAND OFFICE, 602 N CANAL	STE B, CARLSBAD NM 88220
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Section 12 - Other Information

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

ROW Applications

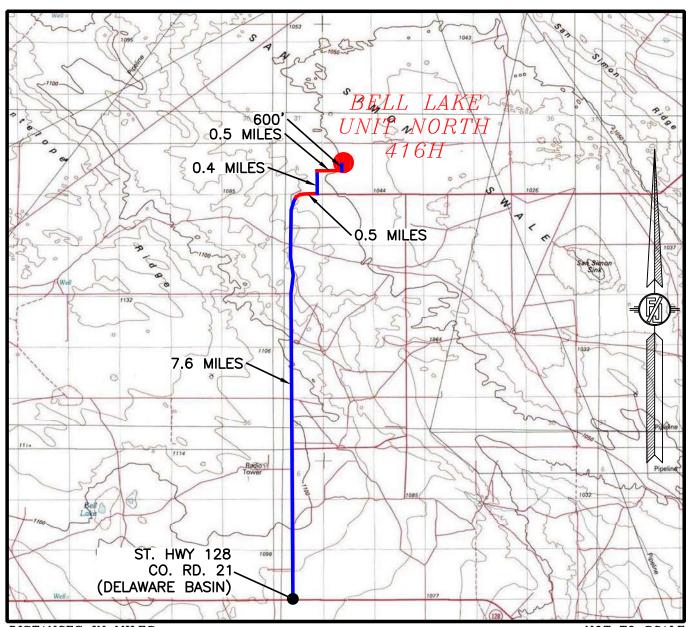
SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted 10/24/2019 by Nik MacPhee (BLM), Eric Hansen (Kaiser-Francis) and Frank 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 CO. RD. 21 (DELAWARE BASIN RD.) AND ST. HWY. 128, GO NORTH ON DELAWARE BASIN RD. FOR APPROX. 7.6 MILES, FOLLOW CURVE AND GO EAST APPROX. 0.5 MILES, TURN LEFT AND GO NORTH APPROX. 0.4 MILES TO ROAD SURVEY STAKE, FOLLOW STAKES EAST APPROX. 0.5 MILES, TURN LEFT AND GO NORTH APPROX. 600 FEET TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

KAISER-FRANCIS OIL COMPANY
BELL LAKE UNIT NORTH 416H
LOCATED 1968 FT. FROM THE NORTH LINE
AND 2230 FT. FROM THE WEST 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. 7673

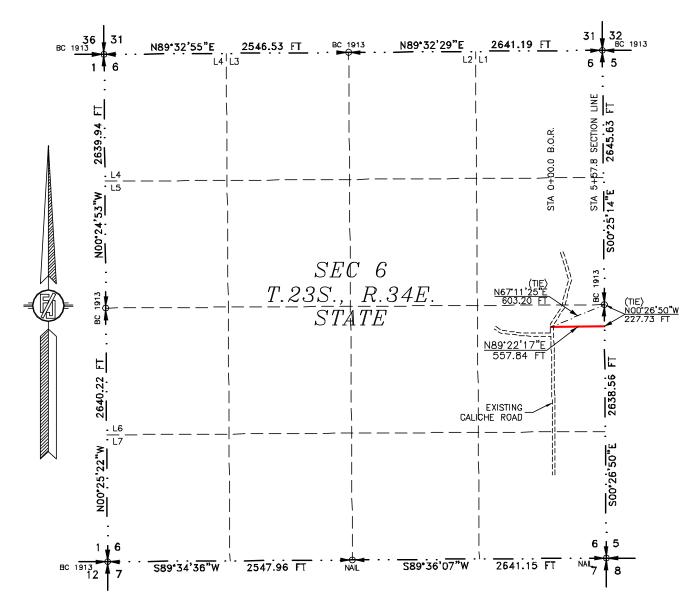
MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

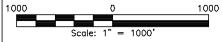
ACCESS ROAD FOR BELL LAKE UNIT NORTH PAD 16
(BELL LAKE UNIT NORTH 115H, 116H, 215H, 216H, 315H, 316H, 415H, & 416H)

KAISER-FRANCIS OIL COMPANY

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 6, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO DECEMBER 19, 2019



SEE NEXT SHEET (2-4) 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: 1−4

__

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 WITHOUT WIFE CERTIFICATE IS EXECUTED AT CARLSBAD.

NEW MIXION, HIS MEL DAY OF VANUARY 2020

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

SURVEY NO. 7670

MADRON SURVEYING INC. (575) 23 34 34 SAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR BELL LAKE UNIT NORTH PAD 16
(BELL LAKE UNIT NORTH 115H, 116H, 215H, 216H, 315H, 316H, 415H, & 416H)

KAISER-FRANCIS OIL COMPANY CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 6, 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 STATE OF NEW MEXICO LAND IN SECTION 6, 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 6, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M., WHENCE THE EAST QUARTER CORNER OF SAID SECTION 6, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS N67*11'25"E, A DISTANCE OF 603.20 FEET;

THENCE N89'22'17"E A DISTANCE OF 557.84 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 6, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS N00'26'50"W, A DISTANCE OF 227.73 FEET;

SAID STRIP OF LAND BEING 557.84 FEET OR 33.81 RODS IN LENGTH, CONTAINING 0.384 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SE/4 557.84 L.F. 33.81 RODS 0.384 ACRES

SURVEYOR CERTIFICATE

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: 2-4

NEW MIXION, HISN MET BAY OF TANKARY 2020

MADRON
301 SOI

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

NEW MEXICO.

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

CERTIFICATE IS EXECUTED AT CARLSBAD,

SURVEY NO. 7670

MADRON SURVEYING INC. 301 SOUNG AND SAD. NEW MEXICO

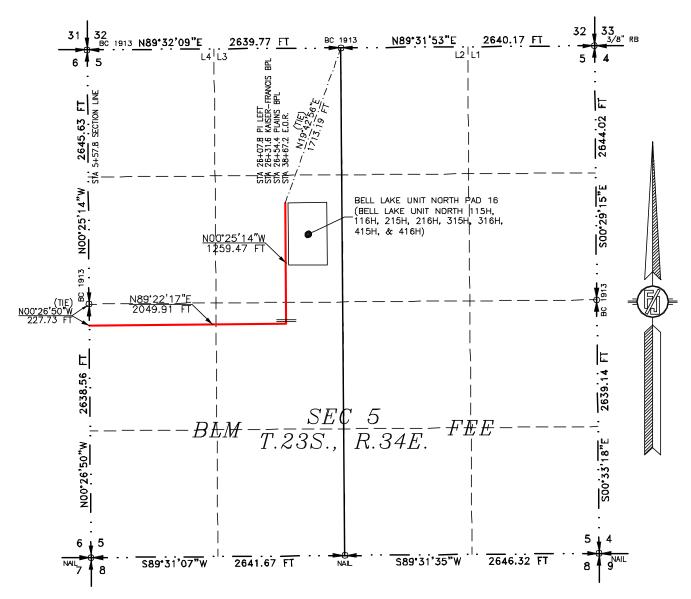
SURVEYING IN

ACCESS ROAD PLAT

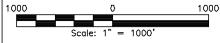
ACCESS ROAD FOR BELL LAKE UNIT NORTH PAD 16 (BELL LAKE UNIT NORTH 115H, 116H, 215H, 216H, 315H, 316H, 415H, & 416H)

KAISER-FRANCIS OIL COMPANY

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 (4-4) 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: 3-4

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 WITH STATE OF THE CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, HEN MILE AND ARY 2020

MADRON SURVEYING, INC.

301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234–3341

SURVEY NO. 7670

VEW MEYICO



ACCESS ROAD FOR BELL LAKE UNIT NORTH PAD 16 (BELL LAKE UNIT NORTH 115H, 116H, 215H, 216H, 315H, 316H, 415H, & 416H)

KAISER-FRANCIS OIL COMPANY
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 BUREAU OF LAND MANAGEMENT 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 NW/4 SW/4 OF SAID SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS NOO'26'50"W, A DISTANCE OF 227.73 FEET;

THENCE N89°22'17"E A DISTANCE OF 2049.91 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED; THENCE N00°25'14"W A DISTANCE OF 1259.47 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 5, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M. BEARS N19°42'56"E, A DISTANCE OF 1713.19 FEET;

SAID STRIP OF LAND BEING 3309.38 FEET OR 200.57 RODS IN LENGTH, CONTAINING 2.279 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 SW/4 1320.98L.F. 80.06 RODS 0.910 ACRES NE/4 SW/4 951.49 L.F. 57.67 RODS 0.655 ACRES SE/4 NW/4 1036.91 L.F. 62.84 RODS 0.714 ACRES

SURVEYOR CERTIFICATE

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: 4-4

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, SE NEW MEXICO.

IN MITTERS WIFE OF THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MIXION HEN ME LANGE VANUARY 2020

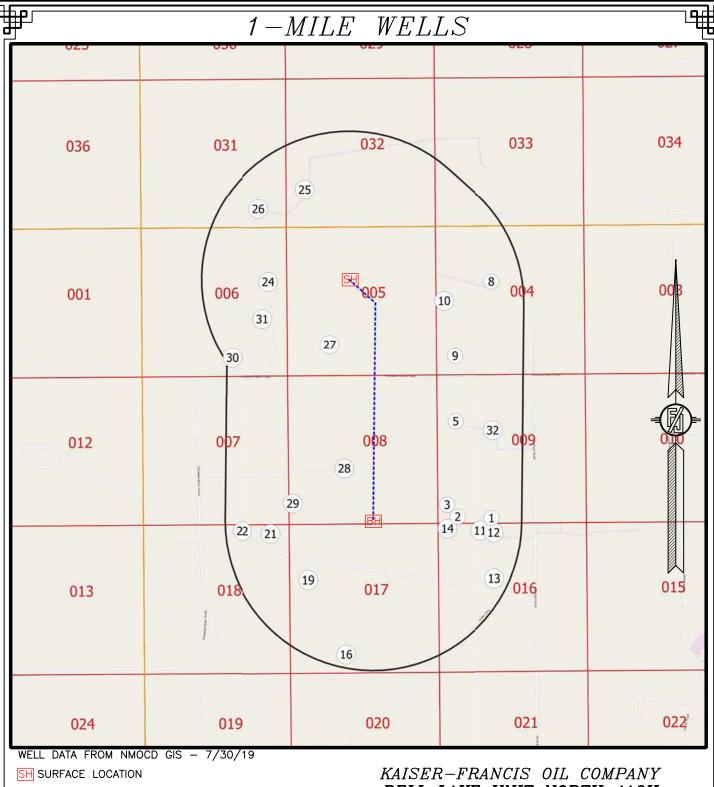
MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220 Phone (575) 234-3341

SURVEY NO. 7670

MADRON SURVEYING, INC. 301 SOUTH COMPANY SOUTH SOUTH

BLUN 416H 1-Mile Wells

						DIR		MEAS	TOT				
	D API	WELLNAME	ULSTR	OGRID	OGRID_NAME	STATUS	ELEV	DEPTH	DEPTH	APR_DATE	LATITUDE	LONGITUDE	POOL_ID_LI
	30-025-42650	ANTELOPE 9 B2NC STATE COM #001H	N-09-23S-34E	14744	MEWBOURNE OIL CO	Н	3423	14880	10343	6/24/2015	32.31241933	-103.4773678	[2207] ANTELOPE RIDGE, BONE SPRING, NW
	30-025-42366	ANTELOPE 9 B2MD STATE COM #001H	M-09-23S-34E	14744	MEWBOURNE OIL CO	H	3426	14940	10335	1/15/2015	32.31254302	-103.4812784	[2207] ANTELOPE RIDGE, BONE SPRING, NW
	30-025-40638	SABLE BSA STATE #001	M-09-23S-34E	14744	MEWBOURNE OIL CO	V	3423	285	285	6/22/2012	32.3137245	-103.4824829	[2207] ANTELOPE RIDGE, BONE SPRING, NW
	30-025-34577	CABALLO 9 STATE #001	E-09-23S-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, ATK(GAS); [70450] ANTELOPE RIDGE, STRAWN (GAS);
													[71920] BELL LAKE, MRW,N(GAS); [96802] SWD, BELL CANYON-CHERRY CANYON
		RIO BLANCA 4 FEDERAL COM #001	F-04-23S-34E		DEVON ENERGY PROD CO, LP	V		14597			32.3354988	-103.4771652	[70440] ANTELOPE RIDGE, MRW (GAS); [71920] BELL LAKE, MRW,N(GAS); [97328] BELL LAKE, DEV, NE (GAS)
		RIO BLANCO 4 FEDERAL #002	M-04-23S-34E		DEVON SFS OPERATING INC	V			13335	4/9/1999	32.3282394	-103.4814301	[96838] DRY AND ABANDONED
		RIO BLANCO 4 33 FEDERAL COM #038H	E-04-23S-34E		DEVON ENERGY PROD CO, LP	Н			10348		32.3336805	-103.4820895	[97922] WC-025 G-06 S223421L, BONE SPRING
		RIO BLANCO 4 33 FEDERAL COM #002H	E-04-23S-34E		DEVON ENERGY PROD CO, LP	Н	3416	17201		5/10/2016		-103.4824781	[28430] GRAMA RIDGE, BONE SPRING
		RIO BLANCO 4 33 FEDERAL COM #003H	E-04-23S-34E		DEVON ENERGY PROD CO, LP	Н			10309	5/10/2016		-103.4823162	[28430] GRAMA RIDGE, BONE SPRING
		RIO BLANCO 4 33 FEDERAL COM #001H			DEVON ENERGY PROD CO, LP	Н			8750	5/10/2016		-103.48264	[28430] GRAMA RIDGE, BONE SPRING
		GETTYSBURG STATE COM #015H	C-16-23S-34E		COG OPERATING LLC	Н		18965		11/30/2017		-103.478694	[2209] ANTELOPE RIDGE, BONE SPRING, WEST
		GETTYSBURG STATE COM #013H	C-16-23S-34E		COG OPERATING LLC	Н		18730		11/30/2017		-103.47851	[2209] ANTELOPE RIDGE, BONE SPRING, WEST
		GETTYSBURG STATE COM #014H	C-16-23S-34E		COG OPERATING LLC	Н		18700		11/30/2017		-103.478597	[2209] ANTELOPE RIDGE, BONE SPRING, WEST
		GETTYSBURG STATE COM #002H	C-16-23S-34E		COG OPERATING LLC	Н		17526			32.3110046	-103.4771347	[2209] ANTELOPE RIDGE, BONE SPRING, WEST
		VETO STATE COM #002H	C-16-23S-34E		COG OPERATING LLC	Н		15695			32.31147	-103.4769745	[96322] BELL LAKE, DELAWARE, EAST
		JEN AXB STATE #001	F-16-23S-34E		EOG Y RESOURCES, INC.	V	3426		20	12/18/2000		-103.4771271	[96838] DRY AND ABANDONED
		GETTYSBURG STATE COM #001H			COG OPERATING LLC	Н		17416		., ., .	32.3113899	-103.4824753	[2209] ANTELOPE RIDGE, BONE SPRING, WEST
		PALOMA BLANCO 17 FEDERAL COM #002	N-17-23S-34E		DEVON ENERGY PROD CO, LP	V			13850		32.2992134	-103.4942169	[70450] ANTELOPE RIDGE, STRAWN (GAS)
		PALOMA BLANCO 17 FEDERAL #001	E-17-23S-34E		DEVON ENERGY PROD CO, LP	V					32.3064728	-103.4985046	[5150] BELL LAKE, BONE SPRING, N; [5166] BELL LAKE, DELAWARE, N; [71920] BELL LAKE, MRW,N(GAS)
		STARCASTER 18 FEDERAL COM #004H	A-18-23S-34E			Н	3479		10394	., .,	32.3110123	-103.5027847	[5150] BELL LAKE, BONE SPRING, NORTH
		STARCASTER 18 FEDERAL COM #003H	B-18-23S-34E		BTA OIL PRODUCERS, LLC	Н			10396	10/15/2015		-103.5070874	[5150] BELL LAKE, BONE SPRING, NORTH
		STARCASTER 7909 FEDERAL COM #008H	B-18-23S-34E		BTA OIL PRODUCERS, LLC	Н	3489		0		32.311302	-103.506067	[5150] BELL LAKE, BONE SPRING, NORTH
		STARCASTER 7909 FEDERAL COM #007H	B-18-23S-34E		BTA OIL PRODUCERS, LLC	Н	3488		0	., .,	32.311302	-103.506165	[5150] BELL LAKE, BONE SPRING, NORTH
		NORTH BELL LAKE FEDERAL #003	H-06-23S-34E		KAISER-FRANCIS OIL CO	V		17540			32.3356552	-103.5028305	[71840] BELL LAKE, DEVONIAN, NORTH (GAS); [96385] BELL LAKE, ELLENBURGER, NORTH (GAS)
		BELL LAKE UNIT #021	L-32-22S-34E	12361	KAISER-FRANCIS OIL CO	V		13407			32.3446426	-103.4985428	[96665] OJO CHISO, MRW, W(GAS); [97630] BELL LAKE, DELW, NE; [97724] WC-025 G-08 S223432L, WLF
		BELL LAKE UNIT #022	P-31-22S-34E		KAISER-FRANCIS OIL CO	V		13430		., .,	32.3427773	-103.503891	[96665] OJO CHISO, MORROW, WEST (GAS)
		NORTH BELL LAKE FEDERAL #002	N-05-23S-34E		KAISER-FRANCIS OIL CO	V		17710			32.3294563	-103.4958344	[77680] GRAMA RIDGE, MRW (GAS); [96385] BELL LAKE, ELLENBURGER, N(GAS); [97630] BELL LAKE, DELW, NE
		NORTH BELL LAKE UNIT 4 #015	K-08-23S-34E		KAISER-FRANCIS OIL CO	V		13589	13589		32.3173599	-103.4942551	[71920] BELL LAKE, MORROW, NORTH (GAS); [96100] SWD, DELAWARE
		LEVIATHAN STATE SWD #001	M-08-23S-34E		KAISER-FRANCIS OIL CO	V	3470		0		32.3139656	-103.5002005	[97869] SWD, DEVONIAN-SILURIAN
		BELL LAKE UNIT #006	O-06-23S-34E		KAISER-FRANCIS OIL CO	V	3485		16506		32.3282585	-103.507103	[71840] BELL LAKE, DEVONIAN, NORTH (GAS)
		BELL LAKE UNIT NORTH #230H	I-06-23S-34E	12361	KAISER-FRANCIS OIL CO	Н			10226		32.332037	-103.503544	[5150] BELL LAKE, BONE SPRING, NORTH
-	30-025-29099	PRE-ONGARD WELL #001	F-09-23S-34E	214263	PRE-ONGARD WELL OPER	0	0	0	80	1/1/1900	32.3209801	-103.47715	



BH BOTTOM OF HOLE

(XX) WELLS WITHIN 1 MILE

WELL PATH

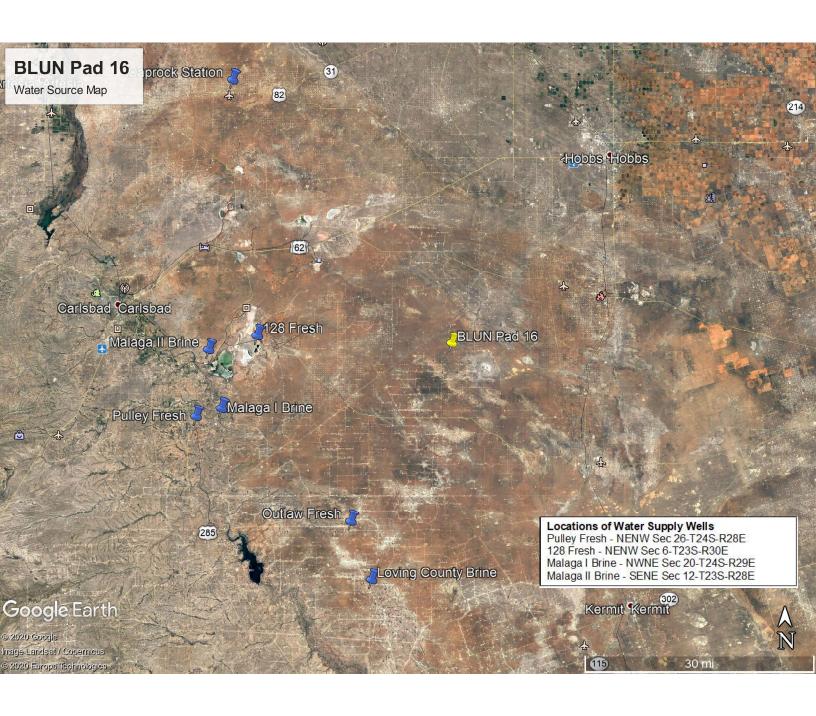
1-MILE BOUNDARY

KAISER-FRANCIS OIL COMPANY
BELL LAKE UNIT NORTH 416H
LOCATED 1968 FT. FROM THE NORTH LINE
AND 2230 FT. FROM THE WEST 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. 7673

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

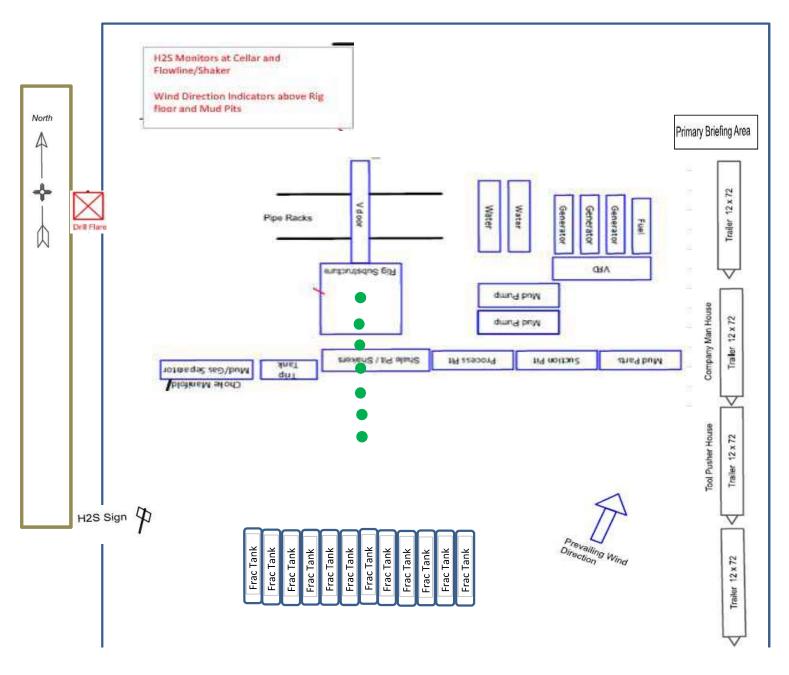


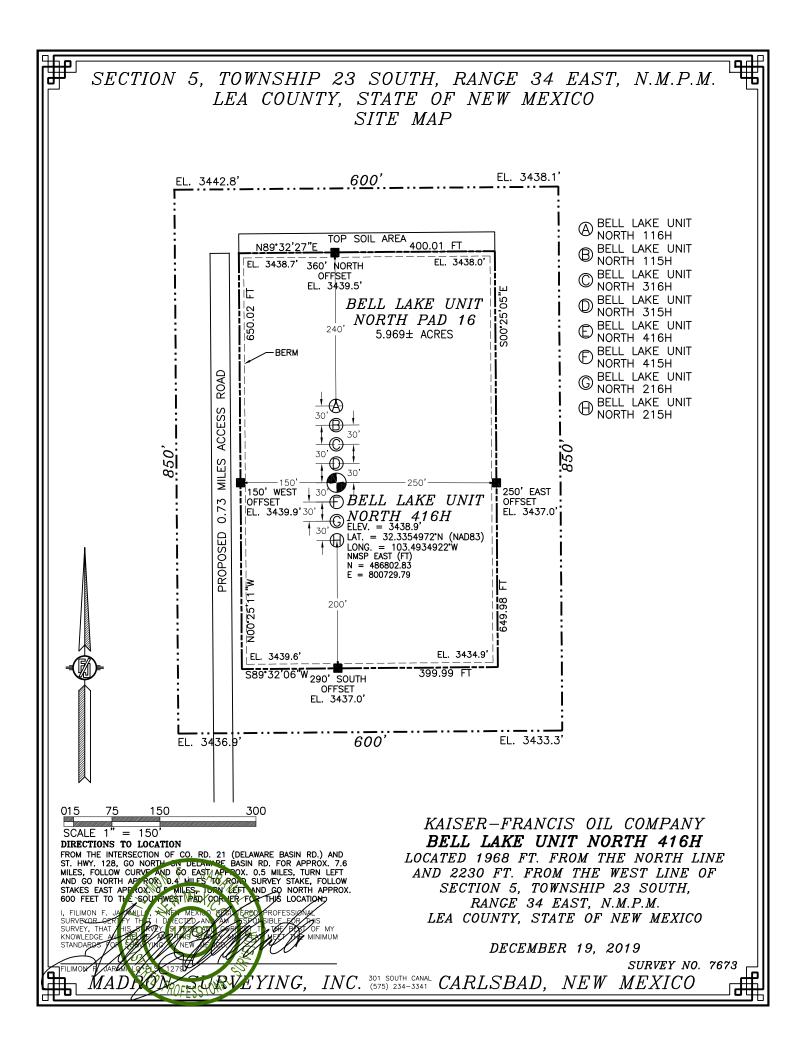
General Drill Site Layout

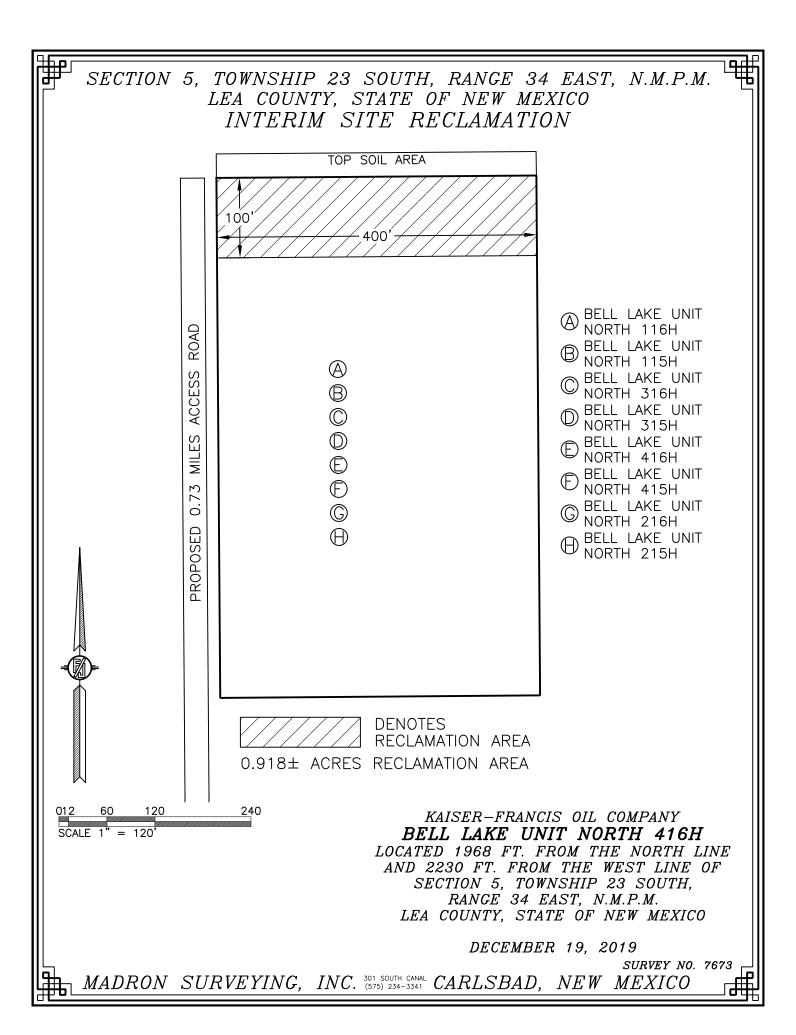
Pad Name: Bell Lake Unit North

Pad Dimensions: 400' X 650'

Well head









PWD Data Report
09/21/2020

APD ID: 10400054350 Submission Date: 02/18/2020

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH Well Number: 416H
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:

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:

Decribe 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:

PWD disturbance (acres):

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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:

Decribe 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?

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

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):

Well Name: BELL LAKE UNIT NORTH Well Number: 416H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



BUREAU OF LAND MANAGEMENT

Well Name: BELL LAKE UNIT NORTH

Bond Info Data Report

APD ID: 10400054350

Submission Date: 02/18/2020

Highlighted data reflects the most recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Number: 416H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

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: