

OCD - HOBBS
11/05/2020
RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		5. Lease Serial No. NMNM0001244A 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. BELL LAKE / NMNM 068292X 8. Lease Name and Well No. BELL LAKE UNIT NORTH [316707] 426H 9. API Well No. 30-025-48023
2. Name of Operator KAISER FRANCIS OIL COMPANY [12361]		10. Field and Pool, or Exploratory [98265] OJO CHISO/WOLFCAMP, SOUTHWEST 11. Sec., T. R. M. or Blk. and Survey or Area SEC 6/T23S/R34E/NMP
3a. Address 6733 S. Yale Ave., Tulsa, OK 74121	3b. Phone No. (include area code) (918) 491-0000	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface LOT 5 / 2350 FNL / 550 FWL / LAT 32.3344426 / LONG -103.515724 At proposed prod. zone LOT 1 / 330 FNL / 1230 FWL / LAT 32.354509 / LONG -103.513534		
14. Distance in miles and direction from nearest town or post office* 20 miles		12. County or Parish LEA 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 290 feet	16. No of acres in lease 634.35	17. Spacing Unit dedicated to this well 480.0
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 11580 feet / 19781 feet	20. BLM/BIA Bond No. in file FED: WYB000055
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3489 feet	22. Approximate date work will start* 06/01/2020	23. Estimated duration 40 days
24. Attachments		

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) MELANIE WILSON / Ph: (918) 491-0000	Date 02/06/2020
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575) 234-5959	Date 09/30/2020
Title Assistant Field Manager Lands & Minerals Office Carlsbad Field Office		

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

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

GCP Rec 11/05/2020

SL

APPROVED WITH CONDITIONS
Approval Date: 09/30/2020

Kz
11/19/2020

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

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



APD ID: 10400054035

Submission Date: 02/06/2020

Highlighted data reflects the most recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400054035

Tie to previous NOS? N

Submission Date: 02/06/2020

BLM Office: CARLSBAD

User: Melanie Wilson

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMNM0001244A

Lease Acres: 634.35

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM068292X

Agreement name: BELL LAKE

Keep application confidential? Y

Permitting Agent? YES

APD Operator: KAISER FRANCIS OIL COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: KAISER FRANCIS OIL COMPANY

Operator Address: 6733 S. Yale Ave.

Zip: 74121

Operator PO Box: PO Box 21468

Operator City: Tulsa

State: OK

Operator Phone: (918)491-0000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: OJO CHISO

Pool Name: WOLFCAMP, SOUTHWEST

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

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 BELL LAKE UNIT

Number: 7

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 20 Miles

Distance to nearest well: 30 FT

Distance to lease line: 290 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: BLUN_426H_C102_20200206134938.pdf

BLUN_426H_Pymt_20200206135550.pdf

Well work start Date: 06/01/2020

Duration: 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 7085A

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	2350	FNL	550	FWL	23S	34E	6	Lot 5	32.3344426	-103.515724	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 0001244A	3489	0	0	N
KOP Leg #1	2114	FSL	1131	FWL	23S	34E	6	Lot 6	32.332181	-103.513279	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 0000587	-7518	11100	11007	N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

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	2640	FNL	1210	FWL	22S	34E	31	Lot 2	32.348321	-103.513459	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0070544A	-8091	17300	11580	Y
PPP Leg #1-2	0	FSL	1257	FWL	22S	34E	31	Lot 4	32.3409	-103.513376	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0070544B	-8091	14600	11580	Y
PPP Leg #1-3	2600	FNL	1300	FWL	23S	34E	6	Lot 5	32.333755	-103.513296	LEA	NEW MEXICO	NEW MEXICO	F	NMNM0001244A	-8091	12000	11580	Y
EXIT Leg #1	330	FNL	1230	FWL	22S	34E	31	Lot 1	32.354509	-103.513534	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0070544A	-8091	19781	11580	Y
BHL Leg #1	330	FNL	1230	FWL	22S	34E	31	Lot 1	32.354509	-103.513534	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0070544A	-8091	19781	11580	Y

CONFIDENTIAL

mjp1692@gmail.com

From: notification@pay.gov
Sent: Thursday, February 6, 2020 1:54 PM
To: mjp1692@gmail.com
Subject: Pay.gov Payment Confirmation: BLM Oil and Gas Online Payment



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: 26NC2B48
Agency Tracking ID: 75946475523
Transaction Type: Sale
Transaction Date: 02/06/2020 03:54:21 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: 10400054035
Lease Numbers: NMNM0001244A
Well Numbers: 426H
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

APD ID: 10400054035

Submission Date: 02/06/2020

Highlighted data reflects the most recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
655488	---	3489	0	0	OTHER : Surface	NONE	N
655489	RUSTLER	2339	1150	1150	SANDSTONE	NONE	N
655490	SALADO	2039	1450	1450	SALT	NONE	N
655491	TOP SALT	1739	1750	1750	SALT	NONE	N
655492	BASE OF SALT	-1051	4540	4540	SALT	NONE	N
655493	LAMAR	-1336	4825	4825	SANDSTONE	NATURAL GAS, OIL	N
655494	BELL CANYON	-1661	5150	5150	SANDSTONE	NATURAL GAS, OIL	N
655495	CHERRY CANYON	-1886	5375	5375	SANDSTONE	NATURAL GAS, OIL	N
655496	BRUSHY CANYON	-4511	8000	8000	SANDSTONE	NATURAL GAS, OIL	N
655497	BONE SPRING	-4786	8275	8275	LIMESTONE	NATURAL GAS, OIL	N
655498	AVALON SAND	-5146	8635	8635	SANDSTONE	NATURAL GAS, OIL	N
655499	BONE SPRING 1ST	-6086	9575	9575	SANDSTONE	NATURAL GAS, OIL	N
655506	BONE SPRING 2ND	-6601	10090	10090	SANDSTONE	NATURAL GAS, OIL	Y
655510	BONE SPRING LIME	-7211	10700	10700	LIMESTONE	NATURAL GAS, OIL	N
655511	BONE SPRING 3RD	-7576	11065	11065	SANDSTONE	NATURAL GAS, OIL	N
655512	WOLFCAMP	-7891	11380	11380	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

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_426H_Choke_Manifold_20200205155132.pdf

BOP Diagram Attachment:

BLUN_Well_Control_Plan_20200205152852.pdf

BLUN_426H_Wellhead_20200205155151.pdf

BLUN_426H_Flex_Hose_20200205155151.pdf

BLUN_426H_BOP_20200205155152.pdf

BLUN_426H_Annular_Variance_Rqst_20200205155152.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1210	0	1210	3489	2279	1210	J-55	40.5	ST&C	2.8	5.5	DRY	8.6	DRY	12.8
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11000	0	10907		-7418	11000	HCP-110	29.7	LT&C	1.3	1.9	DRY	2.4	DRY	2.9
3	PRODUCTION	6.75	5.5	NEW	API	N	0	19781	0	11580		-8091	19781	HCP-110	20	OTHER - USS Eagle SFH	1.8	2	DRY	2.7	DRY	3.1

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_426H_Casing_Assumptions_20200205155325.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_426H_Casing_Assumptions_20200205155231.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUN_426H_Prod_Csg_Specs_20200205155311.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1210	583	1.7	13.5	1008	50	ExtendaCem	Poly E Flake

INTERMEDIATE	Lead		0	1100 0	832	2.7	11	2273	25	NeoCem	Extender
INTERMEDIATE	Tail		0	1100 0	568	1.2	15.6	680	25	Halcem	none
PRODUCTION	Lead		9000	1978 1	846	1.2	14.5	1035	15	Versacem	Halad

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

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

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1090 7	1158 0	OIL-BASED MUD	10	12							
1210	1090 7	OTHER : Brine	8.7	9							
0	1210	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT NORTH

Well Number: 426H

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: 7226

Anticipated Surface Pressure: 4678

Anticipated Bottom Hole Temperature(F): 199

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BLUN_H2S_Plan_20200114113955.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BLUN_426H_Directional_Plan_20200205155606.pdf

Other proposed operations facets description:

Gas Capture Plan attached

Other proposed operations facets attachment:

BLUN_Pad_7_GCP_20200205155618.pdf

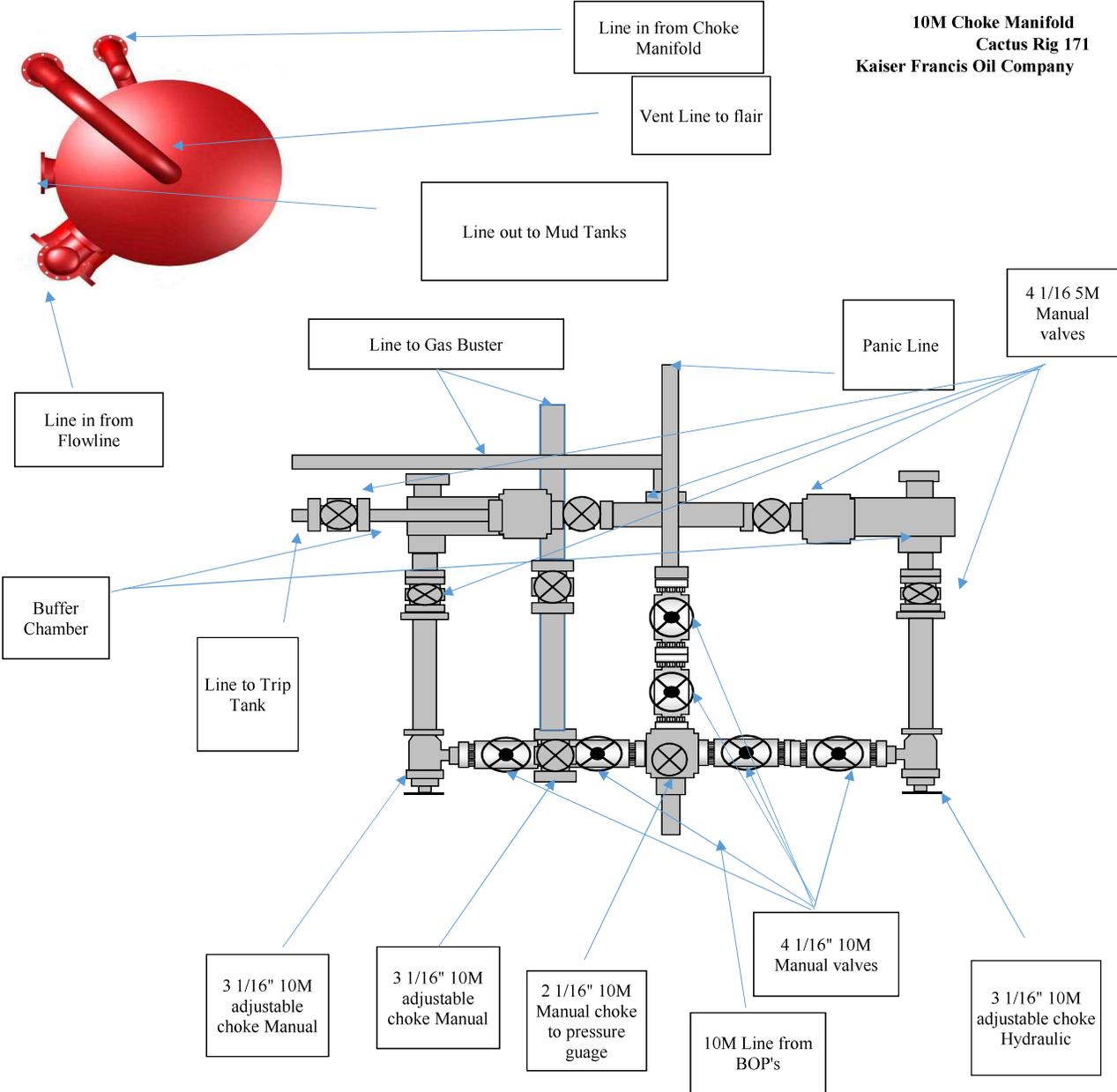
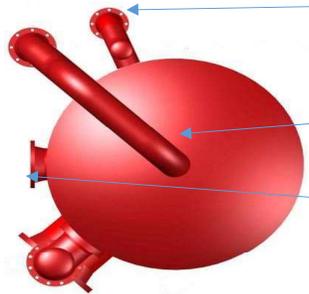
Other Variance attachment:

BLUN_426H_Annular_Variance_Rqst_20200205155636.pdf

BLUN_426H_Flex_Hose_20200205155637.pdf

BLUN_426H_Wellhead_20200205155638.pdf

**10M Choke Manifold
Cactus Rig 171
Kaiser Francis Oil Company**



Kaiser-Francis Oil Company
Bell Lake Unit North 426H
Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Depth	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor (Min 1.8)	Joint Tensile Safety Factor (Min 1.8)
Conductor	120	20"				New		120															
Surface	1210	10-3/4"	40.5	J-55	STC	New	14-3/4"	1210	FW	8.4 - 9.0	1350'	32 - 34	NC	9	566	1580	3130	629000	420000	2.8	5.5	12.8	8.6
Intermediate	11000.47	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	10907	Brine	8.7 - 9.0	11426'	28-29	NC	9	5104	6700	9460	940000	769000	1.3	1.9	2.9	2.4
Production	19781.37	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	11580	OBM	10.0-12.0	19882'	55-70		12	7226	13150	14360	729000	629000	1.8	2.0	3.1	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:

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

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.
Manual USS Product Data Sheet 2017 rev26 (Sept)

Kaiser-Francis Oil Company
Bell Lake Unit North 426H
Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Depth	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor (Min 1.8)	Joint Tensile Safety Factor (Min 1.8)
Conductor	120	20"				New		120															
Surface	1210	10-3/4"	40.5	J-55	STC	New	14-3/4"	1210	FW	8.4 - 9.0	1350'	32 - 34	NC	9	566	1580	3130	629000	420000	2.8	5.5	12.8	8.6
Intermediate	11000.47	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	10907	Brine	8.7 - 9.0	11426'	28-29	NC	9	5104	6700	9460	940000	769000	1.3	1.9	2.9	2.4
Production	19781.37	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	11580	OBM	10.0-12.0	19882'	55-70		12	7226	13150	14360	729000	629000	1.8	2.0	3.1	2.7

**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 H₂S, but due to the sensitive location, the following is submitted as requested.

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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)

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

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

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

PROTECTION OF THE GENERAL PUBLIC/ROE:

In the event of a release with a concentration greater than 100 ppm 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:

$X = [(1.589)(\text{concentration})(Q)] (.6258)$

(H₂S concentrations in decimal form)

10,000 ppm +=1.+

1,000 ppm +=.1+

100 ppm +=.01+

10 ppm +=.001+

Calculation for the 500 ppm ROE:

$X+[(0.4546)(\text{concentration})(Q)] (.06258)$

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 $X=[(1.589)(.0150)(200)] (.6258)$

$X=2.65'$

ROE for 500 PPM $X=[(.4546)(.0150)(200)] (.06258)$

$X=1.2'$

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

TRAINING:

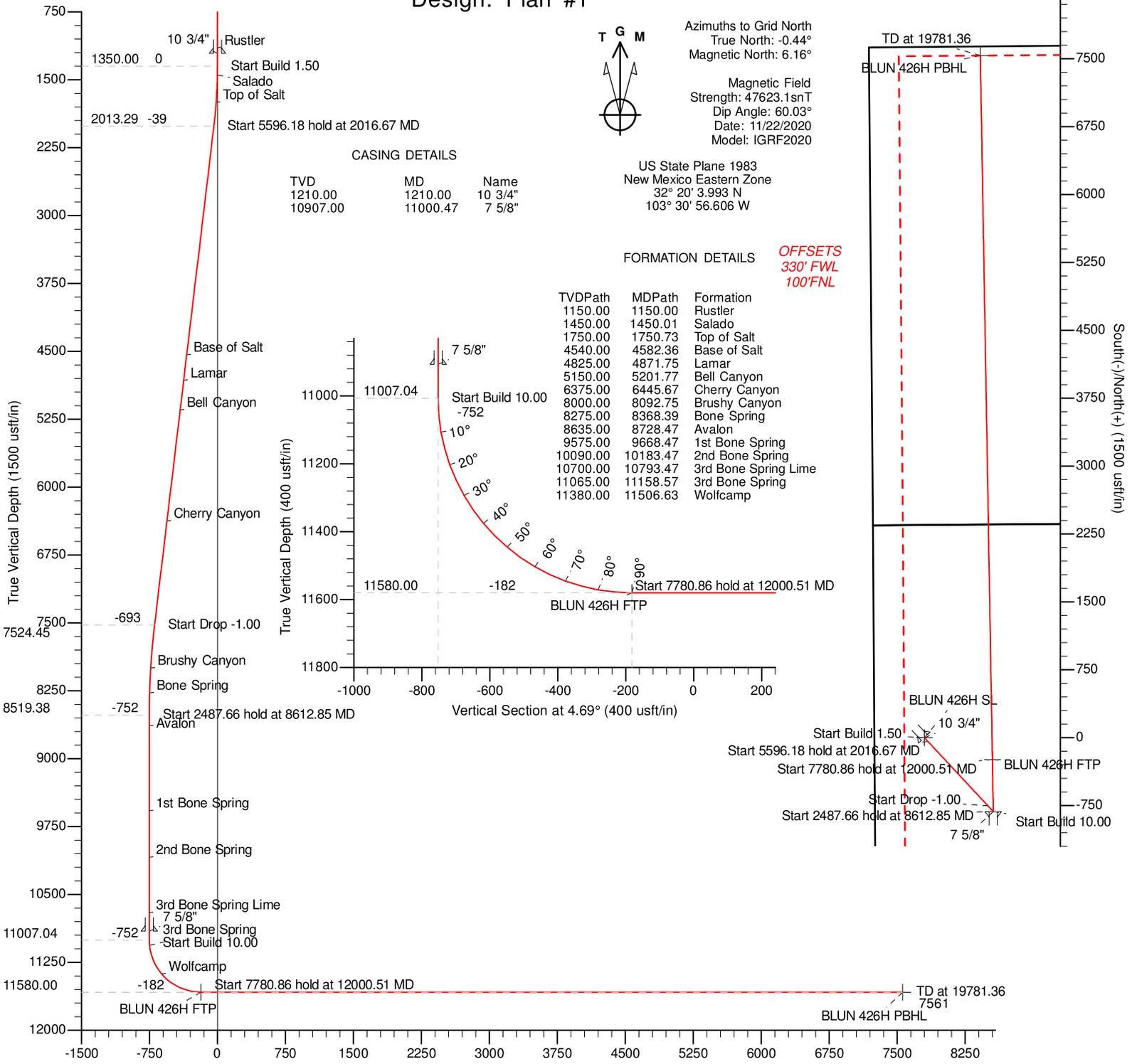
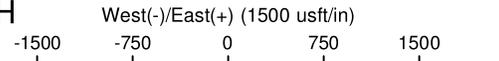
All responders must have training in the detection of H₂S measures for protection against the gas, equipment used for protection and emergency response. Weekly drills by all crews will be conducted and recorded in the IADC daily log. Additionally, responders must be equipped with H₂S monitors at all times.

PUBLIC RELATIONS

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

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

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



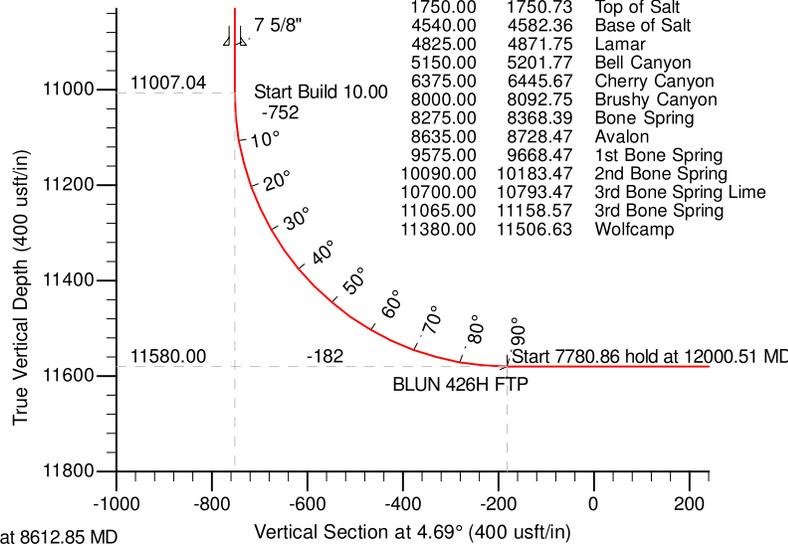
CASING DETAILS

TVD	MD	Name
1210.00	1210.00	10 3/4"
10907.00	11000.47	7 5/8"

US State Plane 1983
 New Mexico Eastern Zone
 32° 20' 3.993 N
 103° 30' 56.606 W

FORMATION DETAILS
OFFSETS
 330' FWL
 100' FNL

TVDPath	MDPath	Formation
1150.00	1150.00	Rustler
1450.00	1450.01	Salado
1750.00	1750.73	Top of Salt
4540.00	4582.36	Base of Salt
4825.00	4871.75	Lamar
5150.00	5201.77	Bell Canyon
6375.00	6445.67	Cherry Canyon
8000.00	8092.75	Brushy Canyon
8275.00	8368.39	Bone Spring
8635.00	8728.47	Avalon
9575.00	9668.47	1st Bone Spring
10090.00	10183.47	2nd Bone Spring
10700.00	10793.47	3rd Bone Spring Lime
11065.00	11158.57	3rd Bone Spring
11380.00	11506.63	Wolfcamp



Vertical Section at 4.69° (1500 usft/in)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BLUN 426H SL	0.00	0.00	0.00	486366.04	793866.05	32° 20' 3.993 N	103° 30' 56.606 W
BLUN 426H FTP	11580.00	-244.10	751.67	486121.94	794617.71	32° 20' 1.521 N	103° 30' 47.868 W
BLUN 426H PBHL	11580.00	7535.60	618.39	493901.50	794484.43	32° 21' 18.509 N	103° 30' 48.727 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1350.00	0.00	0.00	1350.00	0.00	0.00	0.00	0.00	0.00	
3	2016.67	10.00	137.01	2013.29	-42.45	39.57	1.50	137.01	-39.07	S6-T23S-R34E SL
4	7612.85	10.00	137.01	7524.45	-753.31	702.14	0.00	0.00	-693.36	2350'FNL 550'FWL
5	8612.85	0.00	0.00	8519.38	-816.99	761.49	1.00	180.00	-751.97	S6-T23S-R34E FTP
6	11100.51	0.00	0.00	11007.04	-816.99	761.49	0.00	0.00	-751.97	2600'FNL 1300'FWL
7	12000.51	90.00	359.02	11580.00	-244.11	751.67	10.00	359.02	-181.82	S31-T22S-R34E PBHL
8	19781.36	90.00	359.02	11580.00	7535.60	618.39	0.00	0.00	7560.93	100'FNL 1230'FWL

Titan Directional Drilling

Survey Report

Company: Kaiser-Francis Oil Company	Local Co-ordinate Reference: Well Bell Lake Unit North 426H - Slot E
Project: Permian NM E'83	TVD Reference: est.GL+KB @ 3514.00usft (planning)
Site: BLUN Pad 7	MD Reference: est.GL+KB @ 3514.00usft (planning)
Well: Bell Lake Unit North 426H	North Reference: Grid
Wellbore: #426H OH	Survey Calculation Method: Minimum Curvature
Design: Plan #1	Database: EDM 5k-14

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

Site BLUN Pad 7, Centered on 225H			
Site Position:	Northing: 486,276.04 usft	Latitude: 32° 20' 3.103 N	
From: Map	Easting: 793,866.65 usft	Longitude: 103° 30' 56.607 W	
Position Uncertainty: 0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.44 °	

Well Bell Lake Unit North 426H - Slot E			
Well Position	+N/-S 0.00 usft	Northing: 486,366.04 usft	Latitude: 32° 20' 3.993 N
	+E/-W 0.00 usft	Easting: 793,866.05 usft	Longitude: 103° 30' 56.606 W
Position Uncertainty	0.00 usft	Wellhead Elevation: usft	Ground Level: 3,489.40 usft

Wellbore #426H OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/22/20	6.59	60.03	47,623.06318683

Design Plan #1				
Audit Notes:				
Version:	Phase: PROTOTYPE	Tie On Depth: 0.00		
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	4.69

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler										
1,210.00	0.00	0.00	1,210.00	0.00	0.00	0.00	0.00	0.00	0.00	
10 3/4"										
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.75	137.01	1,400.00	-0.24	0.22	-0.22	1.50	1.50	0.00	
1,450.01	1.50	137.01	1,450.00	-0.96	0.89	-0.88	1.50	1.50	0.00	
Salado										
1,500.00	2.25	137.01	1,499.96	-2.15	2.01	-1.98	1.50	1.50	0.00	
1,600.00	3.75	137.01	1,599.82	-5.98	5.58	-5.51	1.50	1.50	0.00	
1,700.00	5.25	137.01	1,699.51	-11.72	10.93	-10.79	1.50	1.50	0.00	
1,750.73	6.01	137.01	1,750.00	-15.36	14.32	-14.14	1.50	1.50	0.00	
Top of Salt										
1,800.00	6.75	137.01	1,798.96	-19.37	18.05	-17.83	1.50	1.50	0.00	
1,900.00	8.25	137.01	1,898.10	-28.92	26.95	-26.61	1.50	1.50	0.00	

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Bell Lake Unit North 426H - Slot E
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3514.00usft (planning)
Site:	BLUN Pad 7	MD Reference:	est.GL+KB @ 3514.00usft (planning)
Well:	Bell Lake Unit North 426H	North Reference:	Grid
Wellbore:	#426H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)
2,000.00	9.75	137.01	1,996.87	-40.36	37.62	-37.15	1.50	1.50	0.00
2,016.67	10.00	137.01	2,013.29	-42.45	39.57	-39.07	1.50	1.50	0.00
2,100.00	10.00	137.01	2,095.35	-53.04	49.43	-48.81	0.00	0.00	0.00
2,200.00	10.00	137.01	2,193.84	-65.74	61.27	-60.51	0.00	0.00	0.00
2,300.00	10.00	137.01	2,292.32	-78.44	73.11	-72.20	0.00	0.00	0.00
2,400.00	10.00	137.01	2,390.80	-91.14	84.95	-83.89	0.00	0.00	0.00
2,500.00	10.00	137.01	2,489.28	-103.85	96.79	-95.58	0.00	0.00	0.00
2,600.00	10.00	137.01	2,587.76	-116.55	108.63	-107.27	0.00	0.00	0.00
2,700.00	10.00	137.01	2,686.24	-129.25	120.47	-118.97	0.00	0.00	0.00
2,800.00	10.00	137.01	2,784.72	-141.95	132.31	-130.66	0.00	0.00	0.00
2,900.00	10.00	137.01	2,883.20	-154.66	144.15	-142.35	0.00	0.00	0.00
3,000.00	10.00	137.01	2,981.68	-167.36	155.99	-154.04	0.00	0.00	0.00
3,100.00	10.00	137.01	3,080.16	-180.06	167.83	-165.73	0.00	0.00	0.00
3,200.00	10.00	137.01	3,178.64	-192.76	179.67	-177.42	0.00	0.00	0.00
3,300.00	10.00	137.01	3,277.12	-205.47	191.51	-189.12	0.00	0.00	0.00
3,400.00	10.00	137.01	3,375.60	-218.17	203.35	-200.81	0.00	0.00	0.00
3,500.00	10.00	137.01	3,474.09	-230.87	215.19	-212.50	0.00	0.00	0.00
3,600.00	10.00	137.01	3,572.57	-243.58	227.03	-224.19	0.00	0.00	0.00
3,700.00	10.00	137.01	3,671.05	-256.28	238.87	-235.88	0.00	0.00	0.00
3,800.00	10.00	137.01	3,769.53	-268.98	250.71	-247.57	0.00	0.00	0.00
3,900.00	10.00	137.01	3,868.01	-281.68	262.55	-259.27	0.00	0.00	0.00
4,000.00	10.00	137.01	3,966.49	-294.39	274.39	-270.96	0.00	0.00	0.00
4,100.00	10.00	137.01	4,064.97	-307.09	286.23	-282.65	0.00	0.00	0.00
4,200.00	10.00	137.01	4,163.45	-319.79	298.07	-294.34	0.00	0.00	0.00
4,300.00	10.00	137.01	4,261.93	-332.49	309.91	-306.03	0.00	0.00	0.00
4,400.00	10.00	137.01	4,360.41	-345.20	321.75	-317.73	0.00	0.00	0.00
4,500.00	10.00	137.01	4,458.89	-357.90	333.59	-329.42	0.00	0.00	0.00
4,582.36	10.00	137.01	4,540.00	-368.36	343.34	-339.05	0.00	0.00	0.00
Base of Salt									
4,600.00	10.00	137.01	4,557.37	-370.60	345.43	-341.11	0.00	0.00	0.00
4,700.00	10.00	137.01	4,655.85	-383.30	357.27	-352.80	0.00	0.00	0.00
4,800.00	10.00	137.01	4,754.34	-396.01	369.11	-364.49	0.00	0.00	0.00
4,871.75	10.00	137.01	4,825.00	-405.12	377.60	-372.88	0.00	0.00	0.00
Lamar									
4,900.00	10.00	137.01	4,852.82	-408.71	380.95	-376.18	0.00	0.00	0.00
5,000.00	10.00	137.01	4,951.30	-421.41	392.79	-387.88	0.00	0.00	0.00
5,100.00	10.00	137.01	5,049.78	-434.12	404.62	-399.57	0.00	0.00	0.00
5,200.00	10.00	137.01	5,148.26	-446.82	416.46	-411.26	0.00	0.00	0.00
5,201.77	10.00	137.01	5,150.00	-447.04	416.67	-411.47	0.00	0.00	0.00
Bell Canyon									
5,300.00	10.00	137.01	5,246.74	-459.52	428.30	-422.95	0.00	0.00	0.00
5,400.00	10.00	137.01	5,345.22	-472.22	440.14	-434.64	0.00	0.00	0.00
5,500.00	10.00	137.01	5,443.70	-484.93	451.98	-446.33	0.00	0.00	0.00
5,600.00	10.00	137.01	5,542.18	-497.63	463.82	-458.03	0.00	0.00	0.00

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Bell Lake Unit North 426H - Slot E
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3514.00usft (planning)
Site:	BLUN Pad 7	MD Reference:	est.GL+KB @ 3514.00usft (planning)
Well:	Bell Lake Unit North 426H	North Reference:	Grid
Wellbore:	#426H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
5,700.00	10.00	137.01	5,640.66	-510.33	475.66	-469.72	0.00	0.00	0.00	
5,800.00	10.00	137.01	5,739.14	-523.03	487.50	-481.41	0.00	0.00	0.00	
5,900.00	10.00	137.01	5,837.62	-535.74	499.34	-493.10	0.00	0.00	0.00	
6,000.00	10.00	137.01	5,936.10	-548.44	511.18	-504.79	0.00	0.00	0.00	
6,100.00	10.00	137.01	6,034.59	-561.14	523.02	-516.49	0.00	0.00	0.00	
6,200.00	10.00	137.01	6,133.07	-573.84	534.86	-528.18	0.00	0.00	0.00	
6,300.00	10.00	137.01	6,231.55	-586.55	546.70	-539.87	0.00	0.00	0.00	
6,400.00	10.00	137.01	6,330.03	-599.25	558.54	-551.56	0.00	0.00	0.00	
6,445.67	10.00	137.01	6,375.00	-605.05	563.95	-556.90	0.00	0.00	0.00	
Cherry Canyon										
6,500.00	10.00	137.01	6,428.51	-611.95	570.38	-563.25	0.00	0.00	0.00	
6,600.00	10.00	137.01	6,526.99	-624.66	582.22	-574.94	0.00	0.00	0.00	
6,700.00	10.00	137.01	6,625.47	-637.36	594.06	-586.64	0.00	0.00	0.00	
6,800.00	10.00	137.01	6,723.95	-650.06	605.90	-598.33	0.00	0.00	0.00	
6,900.00	10.00	137.01	6,822.43	-662.76	617.74	-610.02	0.00	0.00	0.00	
7,000.00	10.00	137.01	6,920.91	-675.47	629.58	-621.71	0.00	0.00	0.00	
7,100.00	10.00	137.01	7,019.39	-688.17	641.42	-633.40	0.00	0.00	0.00	
7,200.00	10.00	137.01	7,117.87	-700.87	653.26	-645.09	0.00	0.00	0.00	
7,300.00	10.00	137.01	7,216.35	-713.57	665.10	-656.79	0.00	0.00	0.00	
7,400.00	10.00	137.01	7,314.84	-726.28	676.94	-668.48	0.00	0.00	0.00	
7,500.00	10.00	137.01	7,413.32	-738.98	688.78	-680.17	0.00	0.00	0.00	
7,600.00	10.00	137.01	7,511.80	-751.68	700.62	-691.86	0.00	0.00	0.00	
7,612.85	10.00	137.01	7,524.45	-753.31	702.14	-693.36	0.00	0.00	0.00	
7,700.00	9.13	137.01	7,610.39	-763.91	712.01	-703.11	1.00	-1.00	0.00	
7,800.00	8.13	137.01	7,709.26	-774.88	722.24	-713.21	1.00	-1.00	0.00	
7,900.00	7.13	137.01	7,808.37	-784.59	731.29	-722.15	1.00	-1.00	0.00	
8,000.00	6.13	137.01	7,907.70	-793.04	739.16	-729.92	1.00	-1.00	0.00	
8,092.75	5.20	137.01	8,000.00	-799.73	745.40	-736.09	1.00	-1.00	0.00	
Brushy Canyon										
8,100.00	5.13	137.01	8,007.22	-800.21	745.85	-736.53	1.00	-1.00	0.00	
8,200.00	4.13	137.01	8,106.89	-806.11	751.35	-741.96	1.00	-1.00	0.00	
8,300.00	3.13	137.01	8,206.69	-810.74	755.67	-746.22	1.00	-1.00	0.00	
8,368.39	2.44	137.01	8,275.00	-813.17	757.93	-748.46	1.00	-1.00	0.00	
Bone Spring										
8,400.00	2.13	137.01	8,306.58	-814.10	758.79	-749.31	1.00	-1.00	0.00	
8,500.00	1.13	137.01	8,406.54	-816.18	760.73	-751.22	1.00	-1.00	0.00	
8,600.00	0.13	137.01	8,506.53	-816.98	761.48	-751.96	1.00	-1.00	0.00	
8,612.85	0.00	0.00	8,519.38	-816.99	761.49	-751.97	1.00	-1.00	0.00	
8,700.00	0.00	0.00	8,606.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
8,728.47	0.00	0.00	8,635.00	-816.99	761.49	-751.97	0.00	0.00	0.00	
Avalon										
8,800.00	0.00	0.00	8,706.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,806.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,906.53	-816.99	761.49	-751.97	0.00	0.00	0.00	

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Bell Lake Unit North 426H - Slot E
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3514.00usft (planning)
Site:	BLUN Pad 7	MD Reference:	est.GL+KB @ 3514.00usft (planning)
Well:	Bell Lake Unit North 426H	North Reference:	Grid
Wellbore:	#426H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
9,100.00	0.00	0.00	9,006.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,106.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,206.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,306.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,406.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,506.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,668.47	0.00	0.00	9,575.00	-816.99	761.49	-751.97	0.00	0.00	0.00	
1st Bone Spring										
9,700.00	0.00	0.00	9,606.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,706.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,806.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,906.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,100.00	0.00	0.00	10,006.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,183.47	0.00	0.00	10,090.00	-816.99	761.49	-751.97	0.00	0.00	0.00	
2nd Bone Spring										
10,200.00	0.00	0.00	10,106.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,206.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,306.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,406.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,506.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,606.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,793.47	0.00	0.00	10,700.00	-816.99	761.49	-751.97	0.00	0.00	0.00	
3rd Bone Spring Lime										
10,800.00	0.00	0.00	10,706.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
10,900.00	0.00	0.00	10,806.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
11,000.00	0.00	0.00	10,906.53	-816.99	761.49	-751.97	0.00	0.00	0.00	
11,000.47	0.00	0.00	10,907.00	-816.99	761.49	-751.97	0.00	0.00	0.00	
7 5/8"										
11,100.51	0.00	0.00	11,007.04	-816.99	761.49	-751.97	0.00	0.00	0.00	
11,150.00	4.95	359.02	11,056.47	-814.85	761.45	-749.85	10.00	10.00	0.00	
11,158.57	5.81	359.02	11,065.00	-814.05	761.44	-749.05	10.00	10.00	0.00	
3rd Bone Spring										
11,200.00	9.95	359.02	11,106.03	-808.37	761.34	-743.40	10.00	10.00	0.00	
11,250.00	14.95	359.02	11,154.84	-797.60	761.16	-732.68	10.00	10.00	0.00	
11,300.00	19.95	359.02	11,202.53	-782.61	760.90	-717.76	10.00	10.00	0.00	
11,350.00	24.95	359.02	11,248.72	-763.53	760.57	-698.77	10.00	10.00	0.00	
11,400.00	29.95	359.02	11,293.08	-740.49	760.18	-675.84	10.00	10.00	0.00	
11,450.00	34.95	359.02	11,335.26	-713.68	759.72	-649.15	10.00	10.00	0.00	
11,500.00	39.95	359.02	11,374.94	-683.29	759.20	-618.91	10.00	10.00	0.00	
11,506.63	40.61	359.02	11,380.00	-679.00	759.12	-614.64	10.00	10.00	0.00	
Wolfcamp										
11,550.00	44.95	359.02	11,411.82	-649.56	758.62	-585.34	10.00	10.00	0.00	
11,600.00	49.95	359.02	11,445.63	-612.74	757.99	-548.69	10.00	10.00	0.00	
11,650.00	54.95	359.02	11,476.09	-573.12	757.31	-509.26	10.00	10.00	0.00	

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Bell Lake Unit North 426H - Slot E
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3514.00usft (planning)
Site:	BLUN Pad 7	MD Reference:	est.GL+KB @ 3514.00usft (planning)
Well:	Bell Lake Unit North 426H	North Reference:	Grid
Wellbore:	#426H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
11,700.00	59.95	359.02	11,502.98	-530.99	756.59	-467.33	10.00	10.00	0.00	
11,750.00	64.95	359.02	11,526.10	-486.68	755.83	-423.24	10.00	10.00	0.00	
11,800.00	69.95	359.02	11,545.27	-440.53	755.04	-377.30	10.00	10.00	0.00	
11,850.00	74.95	359.02	11,560.35	-392.88	754.22	-329.88	10.00	10.00	0.00	
11,900.00	79.95	359.02	11,571.21	-344.09	753.39	-281.32	10.00	10.00	0.00	
11,950.00	84.95	359.02	11,577.78	-294.55	752.54	-232.02	10.00	10.00	0.00	
12,000.51	90.00	359.02	11,580.00	-244.11	751.67	-181.82	10.00	10.00	0.00	
12,100.00	90.00	359.02	11,580.00	-144.64	749.97	-82.82	0.00	0.00	0.00	
12,200.00	90.00	359.02	11,580.00	-44.65	748.26	16.69	0.00	0.00	0.00	
12,300.00	90.00	359.02	11,580.00	55.33	746.54	116.20	0.00	0.00	0.00	
12,400.00	90.00	359.02	11,580.00	155.32	744.83	215.71	0.00	0.00	0.00	
12,500.00	90.00	359.02	11,580.00	255.30	743.12	315.22	0.00	0.00	0.00	
12,600.00	90.00	359.02	11,580.00	355.29	741.40	414.73	0.00	0.00	0.00	
12,700.00	90.00	359.02	11,580.00	455.27	739.69	514.24	0.00	0.00	0.00	
12,800.00	90.00	359.02	11,580.00	555.26	737.98	613.76	0.00	0.00	0.00	
12,900.00	90.00	359.02	11,580.00	655.24	736.27	713.27	0.00	0.00	0.00	
13,000.00	90.00	359.02	11,580.00	755.23	734.55	812.78	0.00	0.00	0.00	
13,100.00	90.00	359.02	11,580.00	855.21	732.84	912.29	0.00	0.00	0.00	
13,200.00	90.00	359.02	11,580.00	955.20	731.13	1,011.80	0.00	0.00	0.00	
13,300.00	90.00	359.02	11,580.00	1,055.19	729.41	1,111.31	0.00	0.00	0.00	
13,400.00	90.00	359.02	11,580.00	1,155.17	727.70	1,210.82	0.00	0.00	0.00	
13,500.00	90.00	359.02	11,580.00	1,255.16	725.99	1,310.33	0.00	0.00	0.00	
13,600.00	90.00	359.02	11,580.00	1,355.14	724.27	1,409.84	0.00	0.00	0.00	
13,700.00	90.00	359.02	11,580.00	1,455.13	722.56	1,509.35	0.00	0.00	0.00	
13,800.00	90.00	359.02	11,580.00	1,555.11	720.85	1,608.86	0.00	0.00	0.00	
13,900.00	90.00	359.02	11,580.00	1,655.10	719.14	1,708.37	0.00	0.00	0.00	
14,000.00	90.00	359.02	11,580.00	1,755.08	717.42	1,807.88	0.00	0.00	0.00	
14,100.00	90.00	359.02	11,580.00	1,855.07	715.71	1,907.39	0.00	0.00	0.00	
14,200.00	90.00	359.02	11,580.00	1,955.05	714.00	2,006.90	0.00	0.00	0.00	
14,300.00	90.00	359.02	11,580.00	2,055.04	712.28	2,106.41	0.00	0.00	0.00	
14,400.00	90.00	359.02	11,580.00	2,155.02	710.57	2,205.92	0.00	0.00	0.00	
14,500.00	90.00	359.02	11,580.00	2,255.01	708.86	2,305.43	0.00	0.00	0.00	
14,600.00	90.00	359.02	11,580.00	2,354.99	707.14	2,404.94	0.00	0.00	0.00	
14,700.00	90.00	359.02	11,580.00	2,454.98	705.43	2,504.45	0.00	0.00	0.00	
14,800.00	90.00	359.02	11,580.00	2,554.96	703.72	2,603.96	0.00	0.00	0.00	
14,900.00	90.00	359.02	11,580.00	2,654.95	702.00	2,703.47	0.00	0.00	0.00	
15,000.00	90.00	359.02	11,580.00	2,754.94	700.29	2,802.98	0.00	0.00	0.00	
15,100.00	90.00	359.02	11,580.00	2,854.92	698.58	2,902.49	0.00	0.00	0.00	
15,200.00	90.00	359.02	11,580.00	2,954.91	696.87	3,002.00	0.00	0.00	0.00	
15,300.00	90.00	359.02	11,580.00	3,054.89	695.15	3,101.51	0.00	0.00	0.00	
15,400.00	90.00	359.02	11,580.00	3,154.88	693.44	3,201.02	0.00	0.00	0.00	
15,500.00	90.00	359.02	11,580.00	3,254.86	691.73	3,300.53	0.00	0.00	0.00	
15,600.00	90.00	359.02	11,580.00	3,354.85	690.01	3,400.04	0.00	0.00	0.00	
15,700.00	90.00	359.02	11,580.00	3,454.83	688.30	3,499.55	0.00	0.00	0.00	

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Bell Lake Unit North 426H - Slot E
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3514.00usft (planning)
Site:	BLUN Pad 7	MD Reference:	est.GL+KB @ 3514.00usft (planning)
Well:	Bell Lake Unit North 426H	North Reference:	Grid
Wellbore:	#426H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
15,800.00	90.00	359.02	11,580.00	3,554.82	686.59	3,599.06	0.00	0.00	0.00	
15,900.00	90.00	359.02	11,580.00	3,654.80	684.87	3,698.57	0.00	0.00	0.00	
16,000.00	90.00	359.02	11,580.00	3,754.79	683.16	3,798.08	0.00	0.00	0.00	
16,100.00	90.00	359.02	11,580.00	3,854.77	681.45	3,897.59	0.00	0.00	0.00	
16,200.00	90.00	359.02	11,580.00	3,954.76	679.74	3,997.10	0.00	0.00	0.00	
16,300.00	90.00	359.02	11,580.00	4,054.74	678.02	4,096.61	0.00	0.00	0.00	
16,400.00	90.00	359.02	11,580.00	4,154.73	676.31	4,196.12	0.00	0.00	0.00	
16,500.00	90.00	359.02	11,580.00	4,254.72	674.60	4,295.63	0.00	0.00	0.00	
16,600.00	90.00	359.02	11,580.00	4,354.70	672.88	4,395.15	0.00	0.00	0.00	
16,700.00	90.00	359.02	11,580.00	4,454.69	671.17	4,494.66	0.00	0.00	0.00	
16,800.00	90.00	359.02	11,580.00	4,554.67	669.46	4,594.17	0.00	0.00	0.00	
16,900.00	90.00	359.02	11,580.00	4,654.66	667.74	4,693.68	0.00	0.00	0.00	
17,000.00	90.00	359.02	11,580.00	4,754.64	666.03	4,793.19	0.00	0.00	0.00	
17,100.00	90.00	359.02	11,580.00	4,854.63	664.32	4,892.70	0.00	0.00	0.00	
17,200.00	90.00	359.02	11,580.00	4,954.61	662.61	4,992.21	0.00	0.00	0.00	
17,300.00	90.00	359.02	11,580.00	5,054.60	660.89	5,091.72	0.00	0.00	0.00	
17,400.00	90.00	359.02	11,580.00	5,154.58	659.18	5,191.23	0.00	0.00	0.00	
17,500.00	90.00	359.02	11,580.00	5,254.57	657.47	5,290.74	0.00	0.00	0.00	
17,600.00	90.00	359.02	11,580.00	5,354.55	655.75	5,390.25	0.00	0.00	0.00	
17,700.00	90.00	359.02	11,580.00	5,454.54	654.04	5,489.76	0.00	0.00	0.00	
17,800.00	90.00	359.02	11,580.00	5,554.52	652.33	5,589.27	0.00	0.00	0.00	
17,900.00	90.00	359.02	11,580.00	5,654.51	650.61	5,688.78	0.00	0.00	0.00	
18,000.00	90.00	359.02	11,580.00	5,754.50	648.90	5,788.29	0.00	0.00	0.00	
18,100.00	90.00	359.02	11,580.00	5,854.48	647.19	5,887.80	0.00	0.00	0.00	
18,200.00	90.00	359.02	11,580.00	5,954.47	645.48	5,987.31	0.00	0.00	0.00	
18,300.00	90.00	359.02	11,580.00	6,054.45	643.76	6,086.82	0.00	0.00	0.00	
18,400.00	90.00	359.02	11,580.00	6,154.44	642.05	6,186.33	0.00	0.00	0.00	
18,500.00	90.00	359.02	11,580.00	6,254.42	640.34	6,285.84	0.00	0.00	0.00	
18,600.00	90.00	359.02	11,580.00	6,354.41	638.62	6,385.35	0.00	0.00	0.00	
18,700.00	90.00	359.02	11,580.00	6,454.39	636.91	6,484.86	0.00	0.00	0.00	
18,800.00	90.00	359.02	11,580.00	6,554.38	635.20	6,584.37	0.00	0.00	0.00	
18,900.00	90.00	359.02	11,580.00	6,654.36	633.48	6,683.88	0.00	0.00	0.00	
19,000.00	90.00	359.02	11,580.00	6,754.35	631.77	6,783.39	0.00	0.00	0.00	
19,100.00	90.00	359.02	11,580.00	6,854.33	630.06	6,882.90	0.00	0.00	0.00	
19,200.00	90.00	359.02	11,580.00	6,954.32	628.34	6,982.41	0.00	0.00	0.00	
19,300.00	90.00	359.02	11,580.00	7,054.30	626.63	7,081.92	0.00	0.00	0.00	
19,400.00	90.00	359.02	11,580.00	7,154.29	624.92	7,181.43	0.00	0.00	0.00	
19,500.00	90.00	359.02	11,580.00	7,254.28	623.21	7,280.94	0.00	0.00	0.00	
19,600.00	90.00	359.02	11,580.00	7,354.26	621.49	7,380.45	0.00	0.00	0.00	
19,700.00	90.00	359.02	11,580.00	7,454.25	619.78	7,479.96	0.00	0.00	0.00	
19,781.37	90.00	359.02	11,580.00	7,535.60	618.39	7,560.93	0.00	0.00	0.00	

Titan Directional Drilling

Survey Report

Company:	Kaiser-Francis Oil Company	Local Co-ordinate Reference:	Well Bell Lake Unit North 426H - Slot E
Project:	Permian NM E'83	TVD Reference:	est.GL+KB @ 3514.00usft (planning)
Site:	BLUN Pad 7	MD Reference:	est.GL+KB @ 3514.00usft (planning)
Well:	Bell Lake Unit North 426H	North Reference:	Grid
Wellbore:	#426H OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5k-14

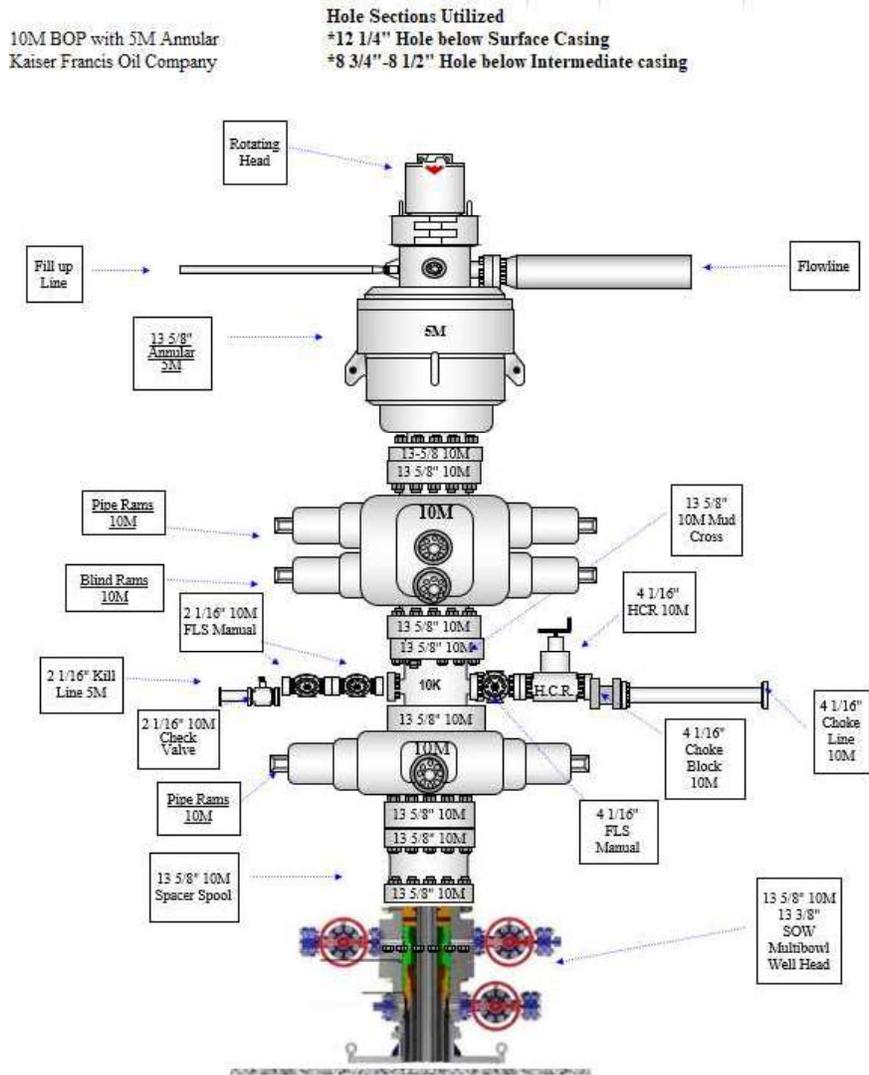
Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,210.00	1,210.00	10 3/4"	10-3/4	13-1/2	
11,000.47	10,907.00	7 5/8"	7-5/8	9-7/8	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,150.00	1,150.00	Rustler		0.00	
1,450.01	1,450.00	Salado		0.00	
1,750.73	1,750.00	Top of Salt		0.00	
4,582.36	4,540.00	Base of Salt		0.00	
4,871.75	4,825.00	Lamar		0.00	
5,201.77	5,150.00	Bell Canyon		0.00	
6,445.67	6,375.00	Cherry Canyon		0.00	
8,092.75	8,000.00	Brushy Canyon		0.00	
8,368.39	8,275.00	Bone Spring		0.00	
8,728.47	8,635.00	Avalon		0.00	
9,668.47	9,575.00	1st Bone Spring		0.00	
10,183.47	10,090.00	2nd Bone Spring		0.00	
10,793.47	10,700.00	3rd Bone Spring Lime		0.00	
11,158.57	11,065.00	3rd Bone Spring		0.00	
11,506.63	11,380.00	Wolfcamp		0.00	

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



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 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 Number 30-025- 48023		² Pool Code 98265		³ Pool Name Ojo Chiso; Wolfcamp, Southwest	
⁴ Property Code 316707		⁵ Property Name BELL LAKE UNIT NORTH			⁶ Well Number 426H
⁷ OGRID No. 12361		⁸ Operator Name KAISER-FRANCIS OIL CO.			⁹ Elevation 3489.4

¹⁰ Surface Location

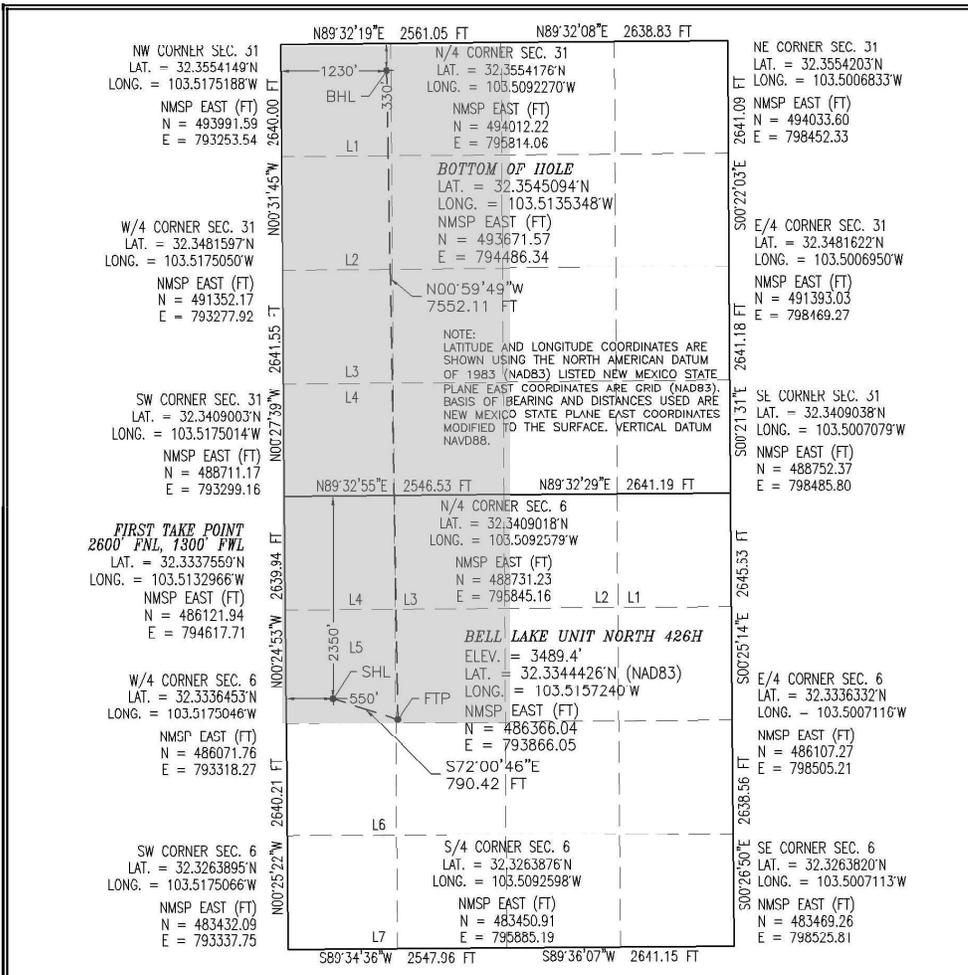
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
5	6	23 S	34 E		2350	NORTH	550	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	31	22 S	34 E		330	NORTH	1230	WEST	LEA

¹² Dedicated Acres 480	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14602
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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.



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Melanie Wilson 02/05/2020
Signature Date

Melanie Wilson
Printed Name
mjp1692@gmail.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

OCTOBER 15, 2019
Date of Survey

William F. Jaramila
Signature and Seal of Registered Professional Surveyor
Certificate Number: 12797
WILLIAM F. JARAMILA, PLS 12797
REGISTERED PROFESSIONAL SURVEYOR NO. 7085A

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Original
to Appropriate
District Office

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

GAS CAPTURE PLAN

Date: 01/26/2020

Original Operator & OGRID No.: Kaiser-Francis Oil Company, 12361
 Amended - Reason for Amendment: _____

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location	Footages	Expected MCF/D	Flared or Vented	Comments
Bell Lake Unit North 225H		6-23S-34E	2440' FNL/550' FWL	2000	0	
Bell Lake Unit North 226H		6-23S-34E	2410' FNL/550' FWL	2000	0	
Bell Lake Unit North 325H		6-23S-34E		2000	0	
Bell Lake Unit North 326H		6-23S-34E		2000	0	
Bell Lake Unit North 425H		6-23S-34E	2380' FNL/ 550' FWL	2000	0	
Bell Lake Unit North 426H	30-025-48023	6-23S-34E	2350' FNL/550' FWL	2000	0	

Gathering System and Pipeline Notification

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

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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