

Form 3160-3  
(June 2015)

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC0061374A
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. BELL LAKE / NMNM068292X
2. Name of Operator KAISER FRANCIS OIL COMPANY [12361]		8. Lease Name and Well No. BELL LAKE UNIT SOUTH 214H [316706]
3a. Address PO BOX 21468 TULSA OK 74121-1468	3b. Phone No. (include area code)	9. API Well No. 30-025-48202
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SENW / 2209 FNL / 1744 FWL / LAT 32.2477617 / LONG -103.4949115 At proposed prod. zone SWSW / 330 FSL / 1230 FWL / LAT 32.2257366 / LONG -103.4965191		10. Field and Pool, or Exploratory [98264] BELL LAKE / WOLFCAMP, SOUTH
14. Distance in miles and direction from nearest town or post office* 20 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 5 / T24S / R34E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2209 feet		12. County or Parish LEA
16. No of acres in lease 440		13. State NM
17. Spacing Unit dedicated to this well 480		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet		20. BLM/BIA Bond No. in file FED: WYB000055
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3600 feet		22. Approximate date work will start* 07/01/2019
		23. Estimated duration 40 days
24. Attachments		

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed)	Date
		05/07/2019
Title		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed)	Date
	Cody Layton / Ph: (575)234-5959	12/04/2020
Title		
Assistant Field Manager Lands & Minerals		
Office CARLSBAD		

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 12/08/2020

*KZ*  
12/20/2020



SL

(Continued on page 2)

\*(Instructions on page 2)

Approval Date: 12/04/2020

## 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.

## Additional Operator Remarks

### Location of Well

1. SHL: SENW / 2209 FNL / 1744 FWL / TWSP: 24S / RANGE: 34E / SECTION: 5 / LAT: 32.2477617 / LONG: -103.4949115 ( TVD: 0 feet, MD: 0 feet )  
PPP: NESW / 2600 FSL / 1360 FWL / TWSP: 24S / RANGE: 34E / SECTION: 5 / LAT: 32.2464662 / LONG: -103.4961482 ( TVD: 10862 feet, MD: 11147 feet )  
PPP: NESW / 2640 FSL / 1326 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.232084 / LONG: -103.49615 ( TVD: 10862 feet, MD: 16400 feet )  
PPP: SENW / 1320 FNL / 1360 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.23571 / LONG: -103.49641 ( TVD: 10862 feet, MD: 15100 feet )  
BHL: SWSW / 330 FSL / 1230 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.2257366 / LONG: -103.4965191 ( TVD: 10862 feet, MD: 18690 feet )

### BLM Point of Contact

Name: Deborah Ham  
Title: Legal Landlaw Examiner  
Phone: 5752345965  
Email: dham@blm.gov

CONFIDENTIAL

## Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

CONFIDENTIAL



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

# Application Data Report

12/07/2020

APD ID: 10400041036

Submission Date: 05/07/2019

Highlighted data  
reflects the most  
recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH

Well Number: 214H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

APD ID: 10400041036

Tie to previous NOS?

Submission Date: 05/07/2019

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: NMLC0061374A

Lease Acres: 440

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? YES

Permitting Agent? NO

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 SOUTH

Well Number: 214H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BELL LAKE

Pool Name: WOLFCAMP,  
SOUTH

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 SOUTH

**Well Number:** 214H

**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?** NO    **New surface disturbance?**

**Type of Well Pad:** MULTIPLE WELL

**Multiple Well Pad Name:**  
SOUTH BELL LAKE UNIT

**Number:** 12

**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:** 2209 FT

**Reservoir well spacing assigned acres Measurement:** 480 Acres

**Well plat:** BLUS\_214H\_C102\_20190430135731.pdf

BLUS\_214H\_Pymt\_Rec\_20190507160007.pdf

**Well work start Date:** 07/01/2019

**Duration:** 40 DAYS

**Section 3 - Well Location Table**

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Survey number:** 6755

**Reference Datum:**

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	2209	FNL	1744	FWL	24S	34E	5	Aliquot SENW	32.2477617	-103.4949115	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0061374A	3600	0	0	
KOP Leg #1	2209	FNL	1369	FWL	24S	34E	5	Aliquot SENW	32.2477784	-103.4961248	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0061374A	-6785	10397	10385	

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH

Well Number: 214H

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	1320	FNL	1360	FWL	24S	34E	8	Aliquot SENW	32.23571	-103.49641	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 100594	-7262	15100	10862	
PPP Leg #1-2	2640	FSL	1326	FWL	24S	34E	8	Aliquot NESW	32.232084	-103.49615	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 069109	-7262	16400	10862	
PPP Leg #1-3	2600	FSL	1360	FWL	24S	34E	5	Aliquot NESW	32.2464662	-103.4961482	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 061374 A	-7262	11147	10862	
EXIT Leg #1	330	FSL	1230	FWL	24S	34E	8	Aliquot SWSW	32.2257366	-103.4965191	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 069109	-7262	18690	10862	
BHL Leg #1	330	FSL	1230	FWL	24S	34E	8	Aliquot SWSW	32.2257366	-103.4965191	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0 069109	-7262	18690	10862	

**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**

<sup>1</sup> API Number 30-025-	<sup>2</sup> Pool Code 98264	<sup>3</sup> Pool Name Bell Lake; Bone Spring, South
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>BELL LAKE UNIT SOUTH</b>	
<sup>7</sup> OGRID No. <b>12361</b>	<sup>8</sup> Operator Name <b>KAISER-FRANCIS OIL CO.</b>	<sup>9</sup> Well Number <b>214H</b>
		<sup>6</sup> Elevation <b>3599.9</b>

<sup>10</sup> Surface Location

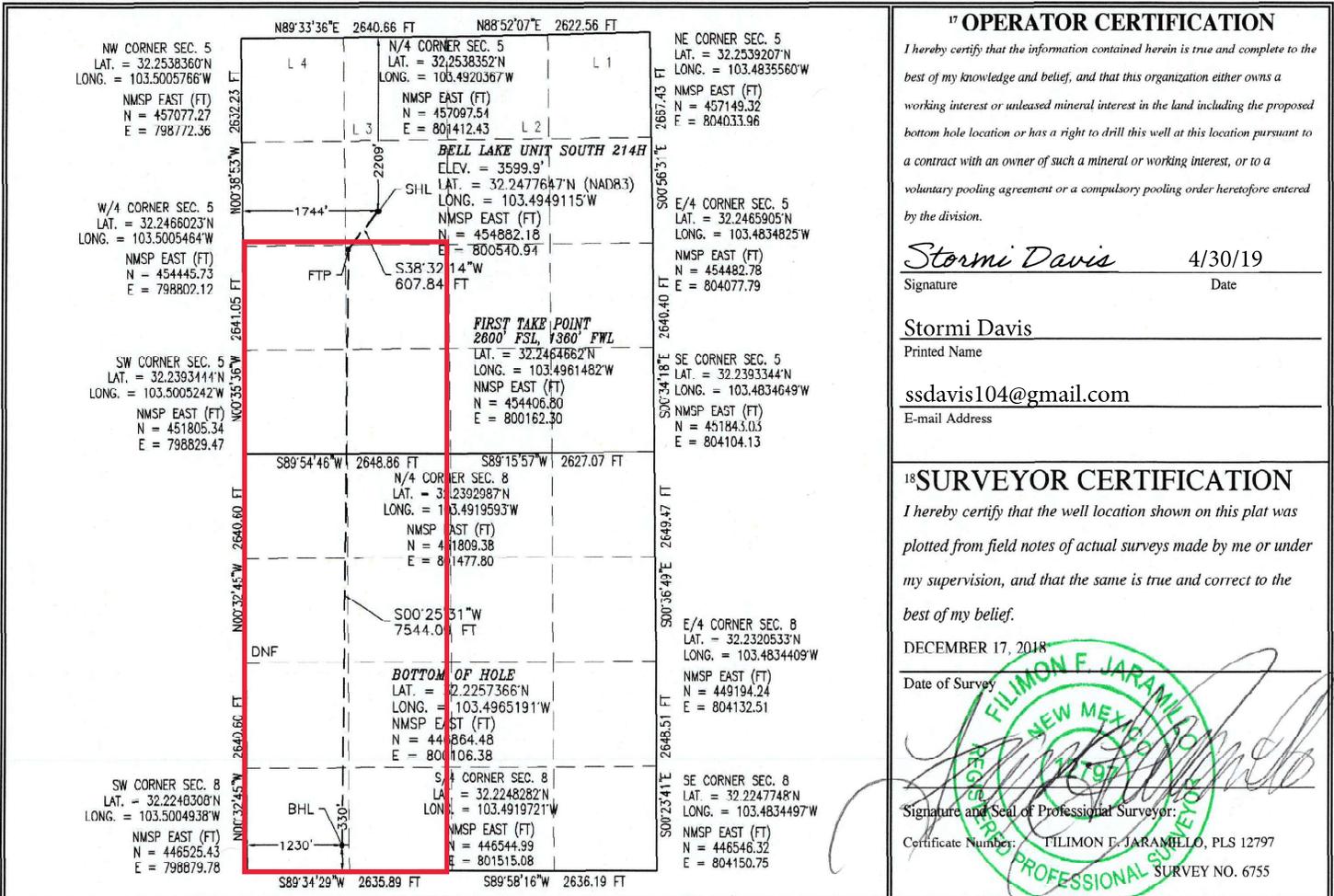
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>F</b>	<b>5</b>	<b>24 S</b>	<b>34 E</b>		<b>2209</b>	<b>NORTH</b>	<b>1744</b>	<b>WEST</b>	<b>LEA</b>

<sup>11</sup> 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
<b>M</b>	<b>8</b>	<b>24 S</b>	<b>34 E</b>		<b>330</b>	<b>SOUTH</b>	<b>1230</b>	<b>WEST</b>	<b>LEA</b>

<sup>12</sup> Dedicated Acres 480	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. R-14600
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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.





## Receipt

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### Tracking Information

Pay.gov Tracking ID: 26HAGC0B

Agency Tracking ID: 75743492084

Form Name: Bureau of Land Management (BLM) Application for Permit to Drill (APD) Fee

Application Name: BLM Oil and Gas Online Payment

### Payment Information

Payment Type: Debit or credit card

Payment Amount: \$10,050.00

Transaction Date: 05/07/2019 05:58:54 PM EDT

Payment Date: 05/07/2019

Company: Kaiser-Francis Oil Company

APD IDs: 10400041036

Lease Numbers: NMLC0061374A

Well Numbers: 214H

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.

### Account Information

Cardholder Name: GEORGE B KAISER

Card Type: Visa

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



# Drilling Plan Data Report

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

12/07/2020

APD ID: 10400041036

Submission Date: 05/07/2019

Highlighted data  
reflects the most  
recent changes

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH

Well Number: 214H

[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
443274	---	3600	0	0		NONE	N
443275	RUSTLER	2208	1400	1400		NONE	N
443276	SALADO	1808	1800	1800		NONE	N
443277	TOP SALT	1483	2125	2125		NONE	N
443278	BASE OF SALT	-1492	5100	5100		NONE	N
443279	LAMAR	-1667	5275	5275		NATURAL GAS, OIL	N
443280	BELL CANYON	-1742	5350	5350		NATURAL GAS, OIL	N
443281	CHERRY CANYON	-2617	6225	6225		NATURAL GAS, OIL	N
443282	BRUSHY CANYON	-4092	7700	7700		NATURAL GAS, OIL	N
443283	BONE SPRING	-5192	8800	8800		NATURAL GAS, OIL	N
443284	AVALON SAND	-5365	8973	8973		NATURAL GAS, OIL	N
443285	BONE SPRING 1ST	-6292	9900	9900		NATURAL GAS, OIL	N
443286	BONE SPRING 2ND	-6877	10485	10485		NATURAL GAS, OIL	Y
443287	BONE SPRING LIME	-7352	10960	10960		NATURAL GAS, OIL	N
443288	BONE SPRING 3RD	-7662	11270	11270		NATURAL GAS, OIL	N
443289	WOLFCAMP	-7767	11375	11375		NATURAL GAS, OIL	N

## Section 2 - Blowout Prevention

**Operator Name:** KAISER FRANCIS OIL COMPANY**Well Name:** BELL LAKE UNIT SOUTH**Well Number:** 214H**Pressure Rating (PSI):** 5M**Rating Depth:** 18000

**Equipment:** A 10M system will be installed according to Onshore Order #2 consisting of an Annular Preventer, BOP with two rams and a blind ram. 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

**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:**

BLUS\_214H\_Choke\_Manifold\_20190501111500.pdf

**BOP Diagram Attachment:**

BLUS\_214H\_Cactus\_10K\_BOP\_5K\_20190501111601.pdf

Cactus\_Flex\_Hose\_16C\_Certification\_20191202091943.pdf

KF\_3\_string\_drawing\_20191202093549.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	17.5	13.375	NEW	API	N	0	1350	0	1350			1350	J-55	54.5	ST&C	1.8	4.3	DRY	12.4	DRY	11.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5200	0	5200			5200	HCP-110	40	LT&C	1.8	3.3	DRY	6.1	DRY	6.1
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18690	0	10862			18690	P-110	20	OTHER - GBCD	2.2	2.5	DRY	3	DRY	3

### Casing Attachments

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH

**Well Number:** 214H

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BLUS\_214H\_Casing\_Assumptions\_20190501101446.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BLUS\_214H\_Casing\_Assumptions\_20190501101459.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

5\_1\_2\_P110\_GBCD\_20190501101524.PDF

BLUS\_214H\_Casing\_Assumptions\_20190501101525.pdf

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**Section 4 - Cement**

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH

**Well Number:** 214H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	730	1.75	13.5	1275	75	Halcem	4% Bentonite

INTERMEDIATE	Lead		0	5200	1000	2.09	12.5	2089	75	Econocem	KolSeal
INTERMEDIATE	Tail		0	5200	380	1.33	14.8	506	75	Halcem	none
PRODUCTION	Lead		4000	1869 0	228	3.49	10.5	795	10	Class H	KolSeal
PRODUCTION	Tail		4000	1869 0	2690	1.22	14.5	3290	10	Class H	none

### 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 times

**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
5200	1086 2	OTHER : Cut Brine	8.7	8.9							
1350	5200	OIL-BASED MUD	8.7	8.9							
0	1350	OTHER : Fresh Water	8.4	9							

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH

**Well Number:** 214H

## Section 6 - Test, Logging, Coring

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

TOC on production casing will be determined by calculation.

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

GR,MUDLOG

**Coring operation description for the well:**

None planned

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 5027

**Anticipated Surface Pressure:** 2637.36

**Anticipated Bottom Hole Temperature(F):** 165

**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:**

H2S\_Contingency\_Plan\_NM\_Bell\_Lake\_Unit\_South\_214H\_215H\_20190501102113.pdf

## Section 8 - Other Information

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

BLUS\_214H\_\_Well\_Plan\_v1\_20190501102222.pdf

**Other proposed operations facets description:**

Gas Capture Plan attached

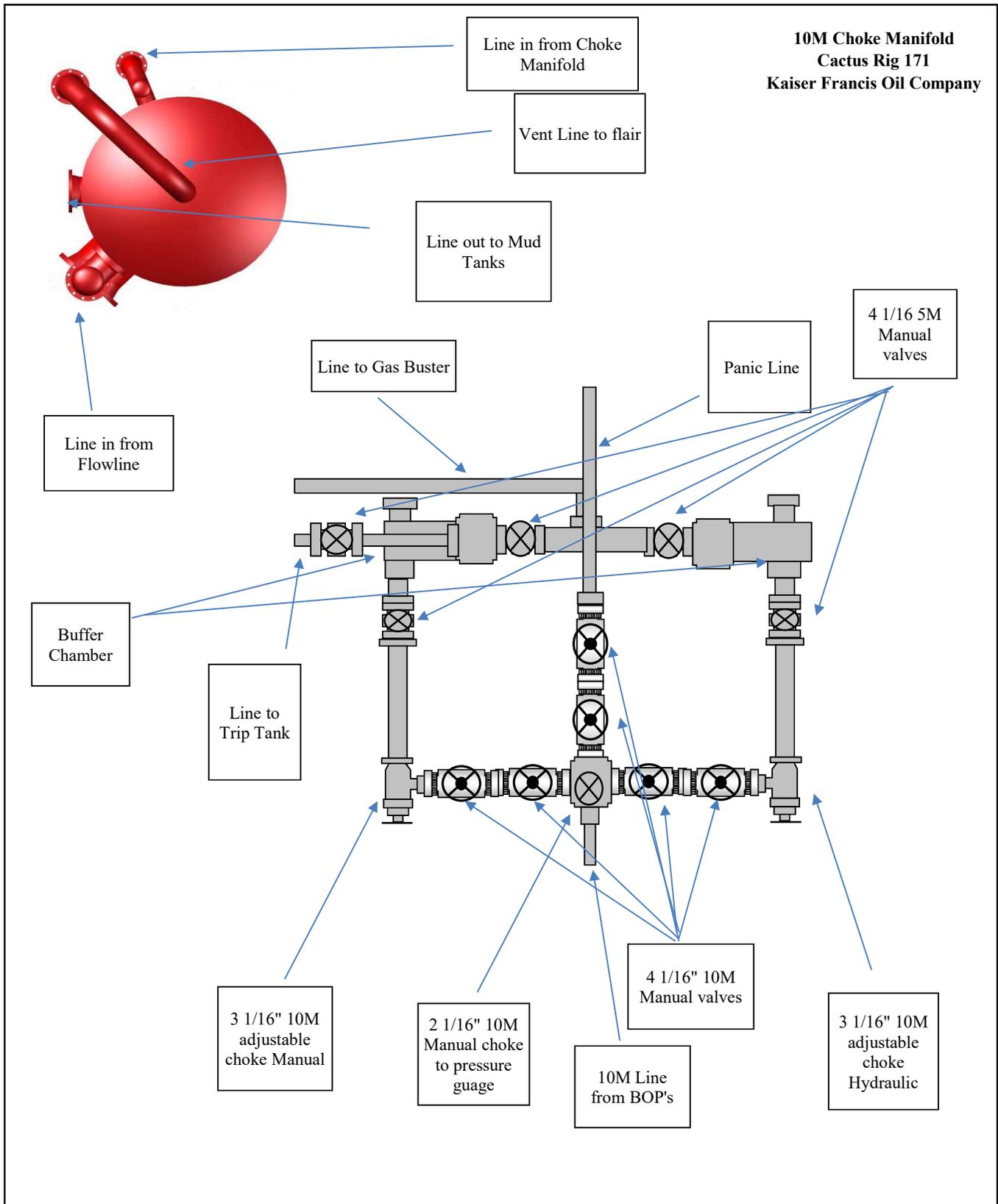
**Other proposed operations facets attachment:**

BLUS\_214H\_GCP\_20190501102320.pdf

**Other Variance attachment:**

CONFIDENTIAL

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



**Worksheet for determining GB Connection Running Torque at the beginning of a Casing Run**

Ignore joints that are assembled with threadlock compounds. See "Addendum Procedure for GB Connections Assembled with Threadlocking Compounds" available at [www.gbtubulars.com](http://www.gbtubulars.com).

**Pertinent Excerpt from GB Running Procedure**

- Stab the pin carefully into the coupling of the joint hanging in the rotary table. A stabbing guide is recommended to protect the pin nose and leading thread from physical damage that may contribute to thread galling. Make up each connection until shoulder engagement plus delta torque  $\geq 10\%$  of the shoulder torque without exceeding the Maximum Makeup Torque. Record the shoulder torque observed for the first 10 joints (excluding threadlocked accessory joints). The Running Torque is (a) the Minimum Makeup Torque shown on the GB Connection Performance Property Sheets or (b) the Maximum Shoulder Torque recorded from the first 10 makeups + 10%, whichever is higher (rounded to the next highest 500 ft.-lbs.) When making up the initial joints for establishing the Running Torque carefully watch the torque gauge for the shoulder torque and try to manually shut down the tongs before reaching Maximum Makeup Torque shown on the GB Connection Performance Property Sheets. Alternately, the dump valve should be set to the Maximum Makeup Torque during this initial process.
- After the first 10 makeups (more if necessary due to conditions at the time of the run), use the "Running Torque" established in Step 5 for the remainder of the string. A dump valve is strongly recommended to stop makeup once the established Running Torque is achieved.

Casing Data		Comment
OD (in)		See GB Connection Data Sheet
Weight (ppf)		See GB Connection Data Sheet
Grade		See GB Connection Data Sheet
Min MU Torque (ft-lbs)		See GB Connection Data Sheet
Max MU Torque (ft-lbs)		(2 X Min MU Tq)
Max Operating Torque (ft-lbs)		The Maximum Operating Torque is <b>NOT</b> the Maximum Makeup Torque and is <b>NOT</b> a sustainable rotating torque. Operating at the Maximum Operating Torque for any length of time will likely damage the connection.

Notes	Joint No.	Shoulder Torque (ft-lbs)	Final Torque (ft-lbs)	Triangle Stamp Position Sketch ( $\triangle$ )
Required	1			
Required	2			
Required	3			
Required	4			
Required	5			
Required	6			
Required	7			
Required	8			
Required	9			
Required	10			
Optional	11			
Optional	12			
Optional	13			
Optional	14			
Optional	15			
Max. Shoulder Torque				
<b>A</b> Max. Shoulder Torque + 10%				
<b>B</b> Min. Makeup Torque (from GB Conn. Data Sheet)				
<b>Running Torque (ft-lbs)</b>			<b>A or B, whichever is greater.</b>	

Optional joints should be added if there is wide variability in shoulder torques recorded during the initial 10 joints. Judgement should be used to determine if more than 10 joints are needed for the purpose of establishing the Running Torque and, if so, how many more should be added.

Wide variations in Shoulder Torque during the first ten (10) joints suggest other issues requiring attention such as poor alignment, improper amount and distribution of thread compound, etc. Refer to 2nd paragraph of GB Running Procedure for possible contributing factors to aid troubleshooting.

**GB Tubulars**  
 950 Threadneedle, Suite 130  
 Houston TX 77079  
 Toll Free: 1-888-245-3848  
 Main: 713-465-3585  
 Fax: 713-984-1529

For Technical Information, contact:  
 Gene Mannella  
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 Qing Lu  
[qingl@gbtubulars.com](mailto:qingl@gbtubulars.com)



Kaiser-Francis Oil Company  
BLUS 214H

**Casing Assumptions**

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor (Min 1.8)	Joint Tensile Safety Factor (Min 1.8)
Conductor	120'	20"				New		120														
Surface	1350'	13-3/8"	54.5	J-55	STC	New	17-1/2"	1350	FW	8.4 - 9.0	32 - 34	NC	9	632	1130	2730	853000	909000	1.8	4.3	11.6	12.4
Intermediate	5200'	9-5/8"	40	HCP-110	LTC	New	12-1/4"	5200	Brine	8.7 - 8.9	28	NC	8.9	2407	4230	7900	1260000	1266000	1.8	3.3	6.1	6.1
Production	18689.99'	5-1/2"	20	P110	GBCD	New	8-3/4"	10862	Cut Brine	8.7 - 8.9	28 - 29	NC	8.9	5027	11100	12640	641000	654000	2.2	2.5	3.0	3.0

Kaiser-Francis Oil Company  
BLUS 214H

**Casing Assumptions**

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor (Min 1.8)	Joint Tensile Safety Factor (Min 1.8)
Conductor	120'	20"				New		120														
Surface	1350'	13-3/8"	54.5	J-55	STC	New	17-1/2"	1350	FW	8.4 - 9.0	32 - 34	NC	9	632	1130	2730	853000	909000	1.8	4.3	11.6	12.4
Intermediate	5200'	9-5/8"	40	HCP-110	LTC	New	12-1/4"	5200	Brine	8.7 - 8.9	28	NC	8.9	2407	4230	7900	1260000	1266000	1.8	3.3	6.1	6.1
Production	18689.99'	5-1/2"	20	P110	GBCD	New	8-3/4"	10862	Cut Brine	8.7 - 8.9	28 - 29	NC	8.9	5027	11100	12640	641000	654000	2.2	2.5	3.0	3.0

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

**BELL LAKE UNIT SOUTH Pad 12  
SECTION 5 -T24S-R34E  
LEA COUNTY, NM**

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

TABLE OF CONTENTS

Emergency Response Activation and General Responsibilities	3
Individual Responsibilities During An H <sub>2</sub> S Release	4
Procedure For Igniting An Uncontrollable Condition	5
Emergency Phone Numbers	6
Protection Of The General Public/Roe	7
Characteristics Of H <sub>2</sub> S And SO <sub>2</sub>	8
Training	8
Public Relations	8
Maps	

## **EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES**

### Activation of the Emergency Action Plan

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

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

### General Responsibilities

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

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

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

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

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

### **All Personnel:**

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

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

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

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

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

### **All Other Personnel:**

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

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

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

**PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION:**

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

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

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

**INSTRUCTIONS FOR IGNITION:**

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

**CONTACTING AUTHORITIES**

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

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

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

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

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



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

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

**TRAINING:**

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

**PUBLIC RELATIONS**

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

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

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

GL @ 3599.90 WELL @ 3621.90usft (Cactus 171)  
 +N/-S +E/-W Northing Easting Latitude Longitude  
 0.00 0.00 454882.18 800540.94 32° 14' 51.953 N 103° 29' 41.682 W  
 DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP - Bell Lake Unit South 214H	10384.54	2.07	-375.10	454884.25	800165.84	32° 14' 52.003 N	103° 29' 46.049 W
PBHL - Bell Lake Unit South 214H	10862.00	-8017.70	-434.56	446864.48	800106.38	32° 13' 32.652 N	103° 29' 47.469 W
FTP - Bell Lake Unit South 214H	10862.00	-475.38	-378.64	454406.80	800162.30	32° 14' 47.278 N	103° 29' 46.133 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
4615.00	0.00	0.00	4615.00	0.00	0.00	0.00	0.000	0.00	KOP, 2.00°/100' Build
4814.80	4.00	270.32	4814.64	0.04	-6.96	2.00	270.316	0.34	Hold 4.00° Inc, 270.32° Azm
9997.66	4.00	270.32	9984.90	2.03	-368.14	0.00	0.000	17.90	Begin 2.00°/100' Drop
10197.46	0.00	0.00	10184.54	2.07	-375.10	2.00	180.000	18.24	Begin Vertical Hold
10397.46	0.00	0.00	10384.54	2.07	-375.10	0.00	0.000	18.24	Begin 12.00°/100' Build
11147.46	90.00	180.42	10862.00	-475.39	-378.64	12.00	180.425	495.18	Begin 90.00° Lateral
18689.99	90.00	180.42	10862.00	-8017.70	-434.56	0.00	0.000	8029.47	PBHL

Kaiser-Francis Oil Company

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Company: Kaiser-Francis  
 Well: Bell Lake Unit South 214H  
 County: Lea County, New Mexico (NAD 83)  
 Rig: Cactus 171  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Created By: CAD  
 Date: 13:40, February 22 2019

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: New Mexico Eastern Zone  
 System Datum: Mean Sea Level

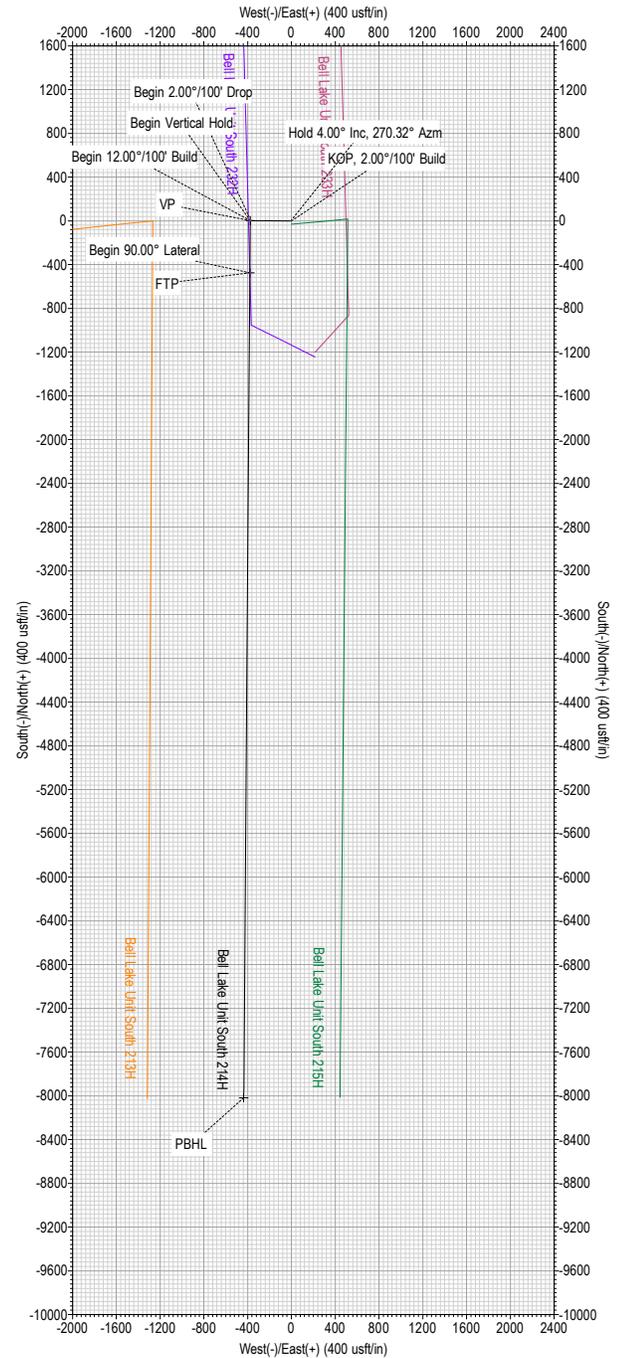
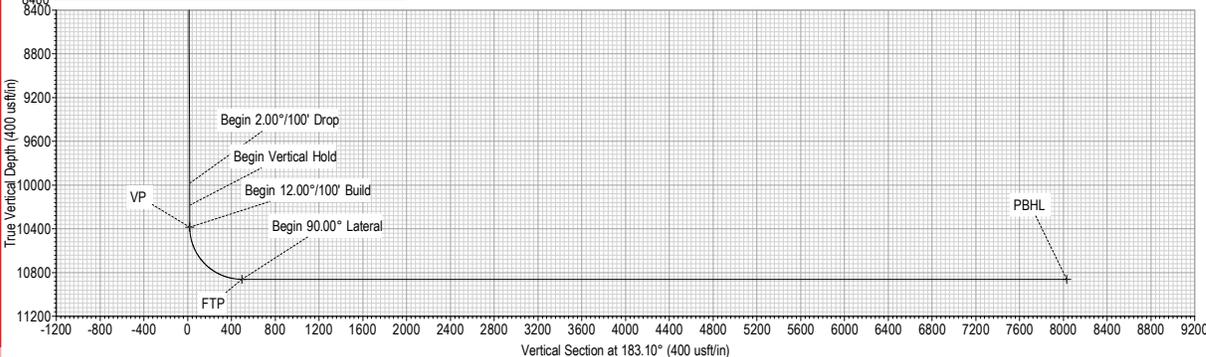
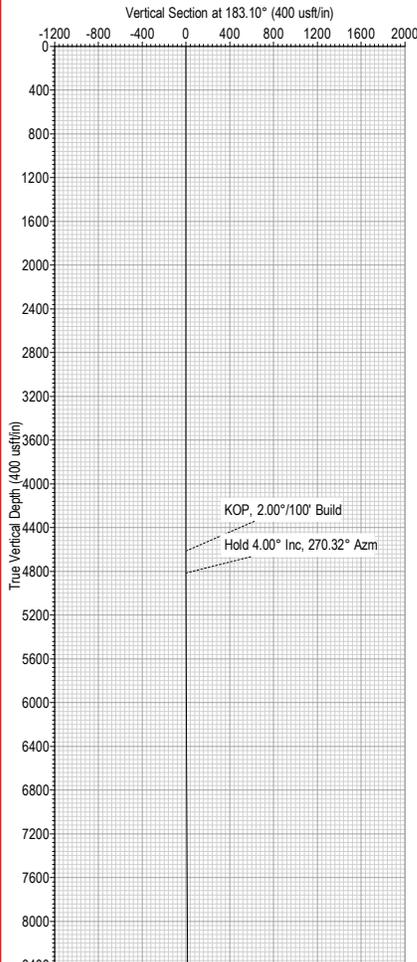
To convert a Magnetic Direction to a Grid Direction, Add 6.344°  
 To convert a Magnetic Direction to a True Direction, Add 6.791° East  
 To convert a True Direction to a Grid Direction, Subtract 0.447°

Azimuths to Grid North  
 True North: -0.45°  
 Magnetic North: 6.34°

Magnetic Field  
 Strength: 47803.7nT  
 Dip Angle: 60.02°  
 Date: 4/25/2019  
 Model: BGGM2018

SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
0.00	18689.99	Design #1 (Wellbore #1)	MWD



Kaiser-Francis Oil Company

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## **Kaiser-Francis**

Lea County, New Mexico (NAD 83)

Bell Lake Unit South 214H

Bell Lake Unit South 214H

Wellbore #1

Plan: Design #1

## **Standard Planning Report**

22 February, 2019



<b>Database:</b>	EDM 5000.15 Conroe DB	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit South 214H
<b>Company:</b>	Kaiser-Francis	<b>TVD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Project:</b>	Lea County, New Mexico (NAD 83)	<b>MD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Site:</b>	Bell Lake Unit South 214H	<b>North Reference:</b>	Grid
<b>Well:</b>	Bell Lake Unit South 214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Lea County, New Mexico (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Bell Lake Unit South 214H				
<b>Site Position:</b>		<b>Northing:</b>	454,882.18 usft	<b>Latitude:</b>	32° 14' 51.953 N
<b>From:</b>	Map	<b>Easting:</b>	800,540.94 usft	<b>Longitude:</b>	103° 29' 41.682 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "		

<b>Well</b>	Bell Lake Unit South 214H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	454,882.18 usft	<b>Latitude:</b>	32° 14' 51.953 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	800,540.94 usft	<b>Longitude:</b>	103° 29' 41.682 W
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,599.90 usft
<b>Grid Convergence:</b>	0.447 °					

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2018	4/25/2019	6.791	60.020	47,803.68

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	183.10

<b>Plan Survey Tool Program</b>	<b>Date</b>	2/22/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,689.99 Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
4,615.00	0.00	0.00	4,615.00	0.00	0.00	0.00	0.00	0.00	0.000	
4,814.80	4.00	270.32	4,814.64	0.04	-6.96	2.00	2.00	0.00	270.316	
9,997.66	4.00	270.32	9,984.90	2.03	-368.14	0.00	0.00	0.00	0.000	
10,197.46	0.00	0.00	10,184.54	2.07	-375.10	2.00	-2.00	0.00	180.000	
10,397.46	0.00	0.00	10,384.54	2.07	-375.10	0.00	0.00	0.00	0.000	VP - Bell Lake Unit
11,147.46	90.00	180.42	10,862.01	-475.39	-378.64	12.00	12.00	-23.94	180.425	
18,689.99	90.00	180.42	10,862.00	-8,017.70	-434.56	0.00	0.00	0.00	0.000	PBHL - Bell Lake U

Kaiser-Francis Oil Company

**MS Directional**  
Planning Report



<b>Database:</b>	EDM 5000.15 Conroe DB	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit South 214H
<b>Company:</b>	Kaiser-Francis	<b>TVD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Project:</b>	Lea County, New Mexico (NAD 83)	<b>MD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Site:</b>	Bell Lake Unit South 214H	<b>North Reference:</b>	Grid
<b>Well:</b>	Bell Lake Unit South 214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	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
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,615.00	0.00	0.00	4,615.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP, 2.00°/100' Build</b>									
4,700.00	1.70	270.32	4,699.99	0.01	-1.26	0.06	2.00	2.00	0.00
4,800.00	3.70	270.32	4,799.87	0.03	-5.97	0.29	2.00	2.00	0.00
4,814.80	4.00	270.32	4,814.64	0.04	-6.96	0.34	2.00	2.00	0.00
<b>Hold 4.00° Inc, 270.32° Azm</b>									

Kaiser-Francis Oil Company

**MS Directional**  
Planning Report



<b>Database:</b>	EDM 5000.15 Conroe DB	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit South 214H
<b>Company:</b>	Kaiser-Francis	<b>TVD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Project:</b>	Lea County, New Mexico (NAD 83)	<b>MD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Site:</b>	Bell Lake Unit South 214H	<b>North Reference:</b>	Grid
<b>Well:</b>	Bell Lake Unit South 214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)	
4,900.00	4.00	270.32	4,899.63	0.07	-12.90	0.63	0.00	0.00	0.00	
5,000.00	4.00	270.32	4,999.39	0.11	-19.87	0.97	0.00	0.00	0.00	
5,100.00	4.00	270.32	5,099.14	0.15	-26.84	1.30	0.00	0.00	0.00	
5,200.00	4.00	270.32	5,198.90	0.19	-33.81	1.64	0.00	0.00	0.00	
5,300.00	4.00	270.32	5,298.66	0.22	-40.78	1.98	0.00	0.00	0.00	
5,400.00	4.00	270.32	5,398.42	0.26	-47.74	2.32	0.00	0.00	0.00	
5,500.00	4.00	270.32	5,498.17	0.30	-54.71	2.66	0.00	0.00	0.00	
5,600.00	4.00	270.32	5,597.93	0.34	-61.68	3.00	0.00	0.00	0.00	
5,700.00	4.00	270.32	5,697.69	0.38	-68.65	3.34	0.00	0.00	0.00	
5,800.00	4.00	270.32	5,797.44	0.42	-75.62	3.68	0.00	0.00	0.00	
5,900.00	4.00	270.32	5,897.20	0.46	-82.59	4.02	0.00	0.00	0.00	
6,000.00	4.00	270.32	5,996.96	0.49	-89.56	4.35	0.00	0.00	0.00	
6,100.00	4.00	270.32	6,096.71	0.53	-96.52	4.69	0.00	0.00	0.00	
6,200.00	4.00	270.32	6,196.47	0.57	-103.49	5.03	0.00	0.00	0.00	
6,300.00	4.00	270.32	6,296.23	0.61	-110.46	5.37	0.00	0.00	0.00	
6,400.00	4.00	270.32	6,395.98	0.65	-117.43	5.71	0.00	0.00	0.00	
6,500.00	4.00	270.32	6,495.74	0.69	-124.40	6.05	0.00	0.00	0.00	
6,600.00	4.00	270.32	6,595.50	0.72	-131.37	6.39	0.00	0.00	0.00	
6,700.00	4.00	270.32	6,695.26	0.76	-138.34	6.73	0.00	0.00	0.00	
6,800.00	4.00	270.32	6,795.01	0.80	-145.30	7.06	0.00	0.00	0.00	
6,900.00	4.00	270.32	6,894.77	0.84	-152.27	7.40	0.00	0.00	0.00	
7,000.00	4.00	270.32	6,994.53	0.88	-159.24	7.74	0.00	0.00	0.00	
7,100.00	4.00	270.32	7,094.28	0.92	-166.21	8.08	0.00	0.00	0.00	
7,200.00	4.00	270.32	7,194.04	0.95	-173.18	8.42	0.00	0.00	0.00	
7,300.00	4.00	270.32	7,293.80	0.99	-180.15	8.76	0.00	0.00	0.00	
7,400.00	4.00	270.32	7,393.55	1.03	-187.12	9.10	0.00	0.00	0.00	
7,500.00	4.00	270.32	7,493.31	1.07	-194.08	9.44	0.00	0.00	0.00	
7,600.00	4.00	270.32	7,593.07	1.11	-201.05	9.77	0.00	0.00	0.00	
7,700.00	4.00	270.32	7,692.82	1.15	-208.02	10.11	0.00	0.00	0.00	
7,800.00	4.00	270.32	7,792.58	1.18	-214.99	10.45	0.00	0.00	0.00	
7,900.00	4.00	270.32	7,892.34	1.22	-221.96	10.79	0.00	0.00	0.00	
8,000.00	4.00	270.32	7,992.09	1.26	-228.93	11.13	0.00	0.00	0.00	
8,100.00	4.00	270.32	8,091.85	1.30	-235.90	11.47	0.00	0.00	0.00	
8,200.00	4.00	270.32	8,191.61	1.34	-242.86	11.81	0.00	0.00	0.00	
8,300.00	4.00	270.32	8,291.37	1.38	-249.83	12.15	0.00	0.00	0.00	
8,400.00	4.00	270.32	8,391.12	1.42	-256.80	12.49	0.00	0.00	0.00	
8,500.00	4.00	270.32	8,490.88	1.45	-263.77	12.82	0.00	0.00	0.00	
8,600.00	4.00	270.32	8,590.64	1.49	-270.74	13.16	0.00	0.00	0.00	
8,700.00	4.00	270.32	8,690.39	1.53	-277.71	13.50	0.00	0.00	0.00	
8,800.00	4.00	270.32	8,790.15	1.57	-284.68	13.84	0.00	0.00	0.00	
8,900.00	4.00	270.32	8,889.91	1.61	-291.64	14.18	0.00	0.00	0.00	
9,000.00	4.00	270.32	8,989.66	1.65	-298.61	14.52	0.00	0.00	0.00	
9,100.00	4.00	270.32	9,089.42	1.68	-305.58	14.86	0.00	0.00	0.00	
9,200.00	4.00	270.32	9,189.18	1.72	-312.55	15.20	0.00	0.00	0.00	
9,300.00	4.00	270.32	9,288.93	1.76	-319.52	15.53	0.00	0.00	0.00	
9,400.00	4.00	270.32	9,388.69	1.80	-326.49	15.87	0.00	0.00	0.00	
9,500.00	4.00	270.32	9,488.45	1.84	-333.46	16.21	0.00	0.00	0.00	
9,600.00	4.00	270.32	9,588.21	1.88	-340.42	16.55	0.00	0.00	0.00	
9,700.00	4.00	270.32	9,687.96	1.91	-347.39	16.89	0.00	0.00	0.00	
9,800.00	4.00	270.32	9,787.72	1.95	-354.36	17.23	0.00	0.00	0.00	
9,900.00	4.00	270.32	9,887.48	1.99	-361.33	17.57	0.00	0.00	0.00	
9,997.66	4.00	270.32	9,984.90	2.03	-368.14	17.90	0.00	0.00	0.00	
<b>Begin 2.00°/100' Drop</b>										
10,000.00	3.95	270.32	9,987.23	2.03	-368.30	17.91	2.00	-2.00	0.00	

<b>Database:</b>	EDM 5000.15 Conroe DB	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit South 214H
<b>Company:</b>	Kaiser-Francis	<b>TVD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Project:</b>	Lea County, New Mexico (NAD 83)	<b>MD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Site:</b>	Bell Lake Unit South 214H	<b>North Reference:</b>	Grid
<b>Well:</b>	Bell Lake Unit South 214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)	
10,100.00	1.95	270.32	10,087.10	2.06	-373.44	18.16	2.00	-2.00	0.00	
10,197.46	0.00	0.00	10,184.54	2.07	-375.10	18.24	2.00	-2.00	0.00	
<b>Begin Vertical Hold</b>										
10,200.00	0.00	0.00	10,187.08	2.07	-375.10	18.24	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,287.08	2.07	-375.10	18.24	0.00	0.00	0.00	
10,397.46	0.00	0.00	10,384.54	2.07	-375.10	18.24	0.00	0.00	0.00	
<b>Begin 12.00°/100' Build</b>										
10,400.00	0.30	180.42	10,387.08	2.06	-375.10	18.24	12.00	12.00	0.00	
10,500.00	12.30	180.42	10,486.29	-8.90	-375.18	29.19	12.00	12.00	0.00	
10,600.00	24.30	180.42	10,581.06	-40.25	-375.41	60.51	12.00	12.00	0.00	
10,700.00	36.30	180.42	10,667.23	-90.61	-375.79	110.82	12.00	12.00	0.00	
10,800.00	48.30	180.42	10,741.06	-157.80	-376.29	177.93	12.00	12.00	0.00	
10,900.00	60.30	180.42	10,799.30	-238.86	-376.89	258.91	12.00	12.00	0.00	
11,000.00	72.30	180.42	10,839.41	-330.26	-377.56	350.21	12.00	12.00	0.00	
11,100.00	84.30	180.42	10,859.65	-428.00	-378.29	447.85	12.00	12.00	0.00	
11,147.46	90.00	180.42	10,862.01	-475.39	-378.64	495.18	12.00	12.00	0.00	
<b>Begin 90.00° Lateral</b>										
11,200.00	90.00	180.42	10,862.01	-527.92	-379.03	547.66	0.00	0.00	0.00	
11,300.00	90.00	180.42	10,862.00	-627.92	-379.77	647.55	0.00	0.00	0.00	
11,400.00	90.00	180.42	10,862.00	-727.91	-380.51	747.44	0.00	0.00	0.00	
11,500.00	90.00	180.42	10,862.00	-827.91	-381.25	847.33	0.00	0.00	0.00	
11,600.00	90.00	180.42	10,862.00	-927.91	-382.00	947.22	0.00	0.00	0.00	
11,700.00	90.00	180.42	10,862.00	-1,027.91	-382.74	1,047.11	0.00	0.00	0.00	
11,800.00	90.00	180.42	10,862.00	-1,127.90	-383.48	1,147.00	0.00	0.00	0.00	
11,900.00	90.00	180.42	10,862.00	-1,227.90	-384.22	1,246.89	0.00	0.00	0.00	
12,000.00	90.00	180.42	10,862.00	-1,327.90	-384.96	1,346.79	0.00	0.00	0.00	
12,100.00	90.00	180.42	10,862.00	-1,427.89	-385.70	1,446.68	0.00	0.00	0.00	
12,200.00	90.00	180.42	10,862.00	-1,527.89	-386.44	1,546.57	0.00	0.00	0.00	
12,300.00	90.00	180.42	10,862.00	-1,627.89	-387.18	1,646.46	0.00	0.00	0.00	
12,400.00	90.00	180.42	10,862.00	-1,727.89	-387.93	1,746.35	0.00	0.00	0.00	
12,500.00	90.00	180.42	10,862.00	-1,827.88	-388.67	1,846.24	0.00	0.00	0.00	
12,600.00	90.00	180.42	10,862.00	-1,927.88	-389.41	1,946.13	0.00	0.00	0.00	
12,700.00	90.00	180.42	10,862.00	-2,027.88	-390.15	2,046.02	0.00	0.00	0.00	
12,800.00	90.00	180.42	10,862.00	-2,127.88	-390.89	2,145.91	0.00	0.00	0.00	
12,900.00	90.00	180.42	10,862.00	-2,227.87	-391.63	2,245.80	0.00	0.00	0.00	
13,000.00	90.00	180.42	10,862.00	-2,327.87	-392.37	2,345.69	0.00	0.00	0.00	
13,100.00	90.00	180.42	10,862.00	-2,427.87	-393.12	2,445.58	0.00	0.00	0.00	
13,200.00	90.00	180.42	10,862.00	-2,527.86	-393.86	2,545.48	0.00	0.00	0.00	
13,300.00	90.00	180.42	10,862.00	-2,627.86	-394.60	2,645.37	0.00	0.00	0.00	
13,400.00	90.00	180.42	10,862.00	-2,727.86	-395.34	2,745.26	0.00	0.00	0.00	
13,500.00	90.00	180.42	10,862.00	-2,827.86	-396.08	2,845.15	0.00	0.00	0.00	
13,600.00	90.00	180.42	10,862.00	-2,927.85	-396.82	2,945.04	0.00	0.00	0.00	
13,700.00	90.00	180.42	10,862.00	-3,027.85	-397.56	3,044.93	0.00	0.00	0.00	
13,800.00	90.00	180.42	10,862.00	-3,127.85	-398.31	3,144.82	0.00	0.00	0.00	
13,900.00	90.00	180.42	10,862.00	-3,227.85	-399.05	3,244.71	0.00	0.00	0.00	
14,000.00	90.00	180.42	10,862.00	-3,327.84	-399.79	3,344.60	0.00	0.00	0.00	
14,100.00	90.00	180.42	10,862.00	-3,427.84	-400.53	3,444.49	0.00	0.00	0.00	
14,200.00	90.00	180.42	10,862.00	-3,527.84	-401.27	3,544.38	0.00	0.00	0.00	
14,300.00	90.00	180.42	10,862.00	-3,627.83	-402.01	3,644.27	0.00	0.00	0.00	
14,400.00	90.00	180.42	10,862.00	-3,727.83	-402.75	3,744.17	0.00	0.00	0.00	
14,500.00	90.00	180.42	10,862.00	-3,827.83	-403.50	3,844.06	0.00	0.00	0.00	
14,600.00	90.00	180.42	10,862.00	-3,927.83	-404.24	3,943.95	0.00	0.00	0.00	
14,700.00	90.00	180.42	10,862.00	-4,027.82	-404.98	4,043.84	0.00	0.00	0.00	

Kaiser-Francis Oil Company

**MS Directional**  
Planning Report



<b>Database:</b>	EDM 5000.15 Conroe DB	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit South 214H
<b>Company:</b>	Kaiser-Francis	<b>TVD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Project:</b>	Lea County, New Mexico (NAD 83)	<b>MD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Site:</b>	Bell Lake Unit South 214H	<b>North Reference:</b>	Grid
<b>Well:</b>	Bell Lake Unit South 214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)	
14,800.00	90.00	180.42	10,862.00	-4,127.82	-405.72	4,143.73	0.00	0.00	0.00	
14,900.00	90.00	180.42	10,862.00	-4,227.82	-406.46	4,243.62	0.00	0.00	0.00	
15,000.00	90.00	180.42	10,862.00	-4,327.82	-407.20	4,343.51	0.00	0.00	0.00	
15,100.00	90.00	180.42	10,862.00	-4,427.81	-407.94	4,443.40	0.00	0.00	0.00	
15,200.00	90.00	180.42	10,862.00	-4,527.81	-408.69	4,543.29	0.00	0.00	0.00	
15,300.00	90.00	180.42	10,862.00	-4,627.81	-409.43	4,643.18	0.00	0.00	0.00	
15,400.00	90.00	180.42	10,862.00	-4,727.80	-410.17	4,743.07	0.00	0.00	0.00	
15,500.00	90.00	180.42	10,862.00	-4,827.80	-410.91	4,842.96	0.00	0.00	0.00	
15,600.00	90.00	180.42	10,862.00	-4,927.80	-411.65	4,942.86	0.00	0.00	0.00	
15,700.00	90.00	180.42	10,862.00	-5,027.80	-412.39	5,042.75	0.00	0.00	0.00	
15,800.00	90.00	180.42	10,862.00	-5,127.79	-413.13	5,142.64	0.00	0.00	0.00	
15,900.00	90.00	180.42	10,862.00	-5,227.79	-413.88	5,242.53	0.00	0.00	0.00	
16,000.00	90.00	180.42	10,862.00	-5,327.79	-414.62	5,342.42	0.00	0.00	0.00	
16,100.00	90.00	180.42	10,862.00	-5,427.79	-415.36	5,442.31	0.00	0.00	0.00	
16,200.00	90.00	180.42	10,862.00	-5,527.78	-416.10	5,542.20	0.00	0.00	0.00	
16,300.00	90.00	180.42	10,862.00	-5,627.78	-416.84	5,642.09	0.00	0.00	0.00	
16,400.00	90.00	180.42	10,862.00	-5,727.78	-417.58	5,741.98	0.00	0.00	0.00	
16,500.00	90.00	180.42	10,862.00	-5,827.77	-418.32	5,841.87	0.00	0.00	0.00	
16,600.00	90.00	180.42	10,862.00	-5,927.77	-419.06	5,941.76	0.00	0.00	0.00	
16,700.00	90.00	180.42	10,862.00	-6,027.77	-419.81	6,041.65	0.00	0.00	0.00	
16,800.00	90.00	180.42	10,862.00	-6,127.77	-420.55	6,141.55	0.00	0.00	0.00	
16,900.00	90.00	180.42	10,862.00	-6,227.76	-421.29	6,241.44	0.00	0.00	0.00	
17,000.00	90.00	180.42	10,862.00	-6,327.76	-422.03	6,341.33	0.00	0.00	0.00	
17,100.00	90.00	180.42	10,862.00	-6,427.76	-422.77	6,441.22	0.00	0.00	0.00	
17,200.00	90.00	180.42	10,862.00	-6,527.75	-423.51	6,541.11	0.00	0.00	0.00	
17,300.00	90.00	180.42	10,862.00	-6,627.75	-424.25	6,641.00	0.00	0.00	0.00	
17,400.00	90.00	180.42	10,862.00	-6,727.75	-425.00	6,740.89	0.00	0.00	0.00	
17,500.00	90.00	180.42	10,862.00	-6,827.75	-425.74	6,840.78	0.00	0.00	0.00	
17,600.00	90.00	180.42	10,862.00	-6,927.74	-426.48	6,940.67	0.00	0.00	0.00	
17,700.00	90.00	180.42	10,862.00	-7,027.74	-427.22	7,040.56	0.00	0.00	0.00	
17,800.00	90.00	180.42	10,862.00	-7,127.74	-427.96	7,140.45	0.00	0.00	0.00	
17,900.00	90.00	180.42	10,862.00	-7,227.74	-428.70	7,240.34	0.00	0.00	0.00	
18,000.00	90.00	180.42	10,862.00	-7,327.73	-429.44	7,340.24	0.00	0.00	0.00	
18,100.00	90.00	180.42	10,862.00	-7,427.73	-430.19	7,440.13	0.00	0.00	0.00	
18,200.00	90.00	180.42	10,862.00	-7,527.73	-430.93	7,540.02	0.00	0.00	0.00	
18,300.00	90.00	180.42	10,862.00	-7,627.72	-431.67	7,639.91	0.00	0.00	0.00	
18,400.00	90.00	180.42	10,862.00	-7,727.72	-432.41	7,739.80	0.00	0.00	0.00	
18,500.00	90.00	180.42	10,862.00	-7,827.72	-433.15	7,839.69	0.00	0.00	0.00	
18,600.00	90.00	180.42	10,862.00	-7,927.72	-433.89	7,939.58	0.00	0.00	0.00	
18,689.99	90.00	180.42	10,862.00	-8,017.70	-434.56	8,029.47	0.00	0.00	0.00	
<b>PBHL</b>										

Kaiser-Francis Oil Company

**MS Directional**  
Planning Report



<b>Database:</b>	EDM 5000.15 Conroe DB	<b>Local Co-ordinate Reference:</b>	Well Bell Lake Unit South 214H
<b>Company:</b>	Kaiser-Francis	<b>TVD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Project:</b>	Lea County, New Mexico (NAD 83)	<b>MD Reference:</b>	WELL @ 3621.90usft (Cactus 171)
<b>Site:</b>	Bell Lake Unit South 214H	<b>North Reference:</b>	Grid
<b>Well:</b>	Bell Lake Unit South 214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP - Bell Lake Unit Sc - plan hits target center - Point	0.00	0.00	10,384.54	2.07	-375.10	454,884.25	800,165.84	32° 14' 52.003 N	103° 29' 46.049 W
PBHL - Bell Lake Unit - plan hits target center - Point	0.00	0.00	10,862.00	-8,017.70	-434.56	446,864.48	800,106.38	32° 13' 32.652 N	103° 29' 47.469 W
FTP - Bell Lake Unit S - plan hits target center - Point	0.00	0.00	10,862.00	-475.38	-378.64	454,406.80	800,162.30	32° 14' 47.278 N	103° 29' 46.133 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,615.00	4,615.00	0.00	0.00	KOP, 2.00°/100' Build
4,814.80	4,814.64	0.04	-6.96	Hold 4.00° Inc, 270.32° Azm
9,997.66	9,984.90	2.03	-368.14	Begin 2.00°/100' Drop
10,197.46	10,184.54	2.07	-375.10	Begin Vertical Hold
10,397.46	10,384.54	2.07	-375.10	Begin 12.00°/100' Build
11,147.46	10,862.01	-475.39	-378.64	Begin 90.00° Lateral
18,689.99	10,862.00	-8,017.70	-434.56	PBHL

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State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Original  
to Appropriate  
District Office

## GAS CAPTURE PLAN

Date: 01/26/2018

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

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

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

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

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Bell Lake Unit South 214H		5-24S-34E		2000	0	
Bell Lake Unit South 215H		5-24S-34E		2000	0	

### Gathering System and Pipeline Notification

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

### Flowback Strategy

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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

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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

<sup>1</sup> API Number 30-025-30-025-48202		<sup>2</sup> Pool Code 98264	<sup>3</sup> Pool Name Bell Lake; Bone Spring, South
<sup>4</sup> Property Code 316706	<sup>5</sup> Property Name BELL LAKE UNIT SOUTH		<sup>6</sup> Well Number 214H
<sup>7</sup> OGRID No. 12361	<sup>8</sup> Operator Name KAISER-FRANCIS OIL CO.		<sup>9</sup> Elevation 3599.9

<sup>10</sup> 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	24 S	34 E		2209	NORTH	1744	WEST	LEA

<sup>11</sup> 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
M	8	24 S	34 E		330	SOUTH	1230	WEST	LEA

<sup>12</sup> Dedicated Acres 480	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. R-14600
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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.

<p>NW CORNER SEC. 5 LAT. = 32.25303607N LONG. = 103.5005766W NMSP EAST (FT) N = 457077.27 E = 798772.36</p> <p>W/4 CORNER SEC. 5 LAT. = 32.2466023N LONG. = 103.5005464W NMSP EAST (FT) N = 454445.73 E = 798802.12</p> <p>SW CORNER SEC. 5 LAT. = 32.2393444N LONG. = 103.5005242W NMSP EAST (FT) N = 451805.34 E = 798829.47</p> <p>SW CORNER SEC. 8 LAT. = 32.2248309N LONG. = 103.5004938W NMSP EAST (FT) N = 44625.43 E = 798879.78</p>	<p>N89°33'36"E 2640.66 FT N88°52'07"E 2622.56 FT</p> <p>L 4 L 3 L 2 L 1</p> <p>N/4 CORNER SEC. 5 LAT. = 32.2538352N LONG. = 103.4920367W NMSP EAST (FT) N = 457097.54 E = 801412.43</p> <p>BELL LAKE UNIT SOUTH 214H ELEV. = 3599.9' LAT. = 32.2477647N (NAD83) LONG. = 103.4949115W NMSP EAST (FT) N = 454882.18 E = 800540.94</p> <p>SHL S38°32' 14"W 607.84 FT</p> <p>FIRST TAKE POINT 2600' FSL, 1380' FWL LAT. = 32.2464862N LONG. = 103.4961482W NMSP EAST (FT) N = 454406.80 E = 800162.30</p> <p>N/4 CORNER SEC. 8 LAT. = 32.2392987N LONG. = 103.4919593W NMSP EAST (FT) N = 451809.38 E = 801477.60</p> <p>S00°25'31"W 7544.01 FT</p> <p>BOTTOM OF HOLE LAT. = 32.2257366N LONG. = 103.4965191W NMSP EAST (FT) N = 442864.48 E = 801106.38</p> <p>S/4 CORNER SEC. 8 LAT. = 32.2248282N LONG. = 103.4919721W NMSP EAST (FT) N = 446544.99 E = 801515.08</p> <p>S89°54'46"W 2648.86 FT S89°15'57"W 2627.07 FT</p> <p>S89°34'29"W 2635.89 FT S89°58'16"W 2636.19 FT</p> <p>NE CORNER SEC. 5 LAT. = 32.2539207N LONG. = 103.4833556W NMSP EAST (FT) N = 457149.32 E = 804033.96</p> <p>E/4 CORNER SEC. 5 LAT. = 32.2465905N LONG. = 103.4834825W NMSP EAST (FT) N = 454482.78 E = 804077.79</p> <p>SE CORNER SEC. 5 LAT. = 32.2393344N LONG. = 103.4834649W NMSP EAST (FT) N = 451843.03 E = 804104.13</p> <p>E/4 CORNER SEC. 8 LAT. = 32.2320533N LONG. = 103.4834409W NMSP EAST (FT) N = 449194.24 E = 804132.51</p> <p>SE CORNER SEC. 8 LAT. = 32.2247748N LONG. = 103.4834497W NMSP EAST (FT) N = 446546.32 E = 804150.75</p>	<p><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p>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.</p> <p><i>Stormi Davis</i> 4/30/19 Signature Date</p> <p>Stormi Davis Printed Name</p> <p>ssdavis104@gmail.com E-mail Address</p>
	<p>NE CORNER SEC. 5 LAT. = 32.2539207N LONG. = 103.4833556W NMSP EAST (FT) N = 457149.32 E = 804033.96</p> <p>E/4 CORNER SEC. 5 LAT. = 32.2465905N LONG. = 103.4834825W NMSP EAST (FT) N = 454482.78 E = 804077.79</p> <p>SE CORNER SEC. 5 LAT. = 32.2393344N LONG. = 103.4834649W NMSP EAST (FT) N = 451843.03 E = 804104.13</p> <p>E/4 CORNER SEC. 8 LAT. = 32.2320533N LONG. = 103.4834409W NMSP EAST (FT) N = 449194.24 E = 804132.51</p> <p>SE CORNER SEC. 8 LAT. = 32.2247748N LONG. = 103.4834497W NMSP EAST (FT) N = 446546.32 E = 804150.75</p>	<p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>DECEMBER 17, 2018 Date of Survey</p> <p><i>FILIMON F. JARAMILLO</i> Signature and Seal of Professional Surveyor</p> <p>FILIMON F. JARAMILLO, PLS 12797 Certificate Number</p> <p>FILIMON F. JARAMILLO, PLS 12797 PROFESSIONAL SURVEY NO. 6755</p>

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State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Original  
to Appropriate  
District Office

**GAS CAPTURE PLAN**

Date: 01/26/2018

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

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 12839

**CONDITIONS OF APPROVAL**

Operator:	OGRID:	Action Number:	Action Type:
KAISER-FRANCIS OIL CO      P.O. Box 21468      Tulsa, OK74121	12361	12839	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until freshwater zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.