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

5. Lease Serial No.: NMNM100594

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.: BELL LAKE / NMNM 068292X

8. Lease Name and Well No.: BELL LAKE UNIT SOUTH [316706] 408H

2. Name of Operator: KAISER FRANCIS OIL COMPANY [12361]

9. API Well No.:

3a. Address: 6733 S. Yale Ave., Tulsa, OK 74121

3b. Phone No. *(include area code)*: (918) 491-0000

10. Field and Pool, or Exploratory [98266]: BELL LAKE/WOLFCAMP, SOUTH

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SENW / 2520 FNL / 1395 FWL / LAT 32.2469142 / LONG -103.5130119

At proposed prod. zone: LOT 4 / 330 FSL / 1230 FWL / LAT 32.2257311 / LONG -103.513539

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 6/T24S/R34E/NMP

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): 1245 feet

16. No of acres in lease:

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.: 20 feet

19. Proposed Depth: 11817 feet / 19817 feet

20. BLM/BIA Bond No. in file: FED: WYB000055

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3613 feet

22. Approximate date work will start*: 02/01/2019

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.
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	Name *(Printed/Typed)*	Date
(Electronic Submission)	STORMI DAVIS / Ph: (918) 491-0000	11/04/2019

Title: Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	01/06/2021

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

GCP Rec 01/11/2021

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 01/06/2021

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**KAISER FRANCIS OIL COMPANY**
LEASE NO.:	**NMNM100594**
WELL NAME & NO.:	BELL LAKE UNIT SOUTH 408H
SURFACE HOLE FOOTAGE:	2520'/N & 1395'/W
BOTTOM HOLE FOOTAGE	330'/S & 1230'/W
LOCATION:	Section 6, T.24 S., R.34 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☑ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **1550 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **7-5/8** inch intermediate casing shall be set at approximately **11187 feet**. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
- **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- Excess cement calculates to less than 25% ; More cement may be needed.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. **BOP REQUIREMENTS**

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. (This is not necessary for secondary recovery unit wells)

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

RI11092020

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

Operator Certification Data Report

01/06/2021

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

Application Data Report
01/06/2021

APD ID: 10400050505
Submission Date: 11/04/2019
Operator Name: KAISER FRANCIS OIL COMPANY
Well Name: BELL LAKE UNIT SOUTH
Well Number: 408H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

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Section 1 - General

APD ID: 10400050505
Tie to previous NOS? N
Submission Date: 11/04/2019
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: NMNM100594
Lease Acres:
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 SOUTH
Well Number: 408H
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:** 408H

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:** SOUTH BELL LAKE UNIT **Number:** 6

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:** 20 FT **Distance to lease line:** 1245 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: BLUS_408H_C102_20191101123501.pdf

Pay.gov_20191104115602.pdf

Well work start Date: 02/01/2019 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 5936A **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	2520	FNL	1395	FWL	24S	34E	6	Aliquot SENW	32.2469142	-103.5130119	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3613	0	0	N
KOP Leg #1	2520	FNL	1395	FWL	24S	34E	6	Aliquot SENW	32.2469142	-103.5130119	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-6762	10375	10375	N

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

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	2600	FSL	1300	FWL	24S	34E	6	Lot 6	32.2464828	-103.5133192	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8204	12267	11817	Y
PPP Leg #1-2	0	FNL	1300	FWL	24S	34E	7	Lot 1	32.2393368	-103.5133946	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 100594	-8204	14867	11817	Y
PPP Leg #1-3	2640	FSL	1275	FWL	24S	34E	7	Lot 3	32.2321014	-103.5134725	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-8204	17507	11817	Y
EXIT Leg #1	330	FSL	1230	FWL	24S	34E	7	Lot 4	32.2257311	-103.5135539	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8204	19817	11817	Y
BHL Leg #1	330	FSL	1230	FWL	24S	34E	7	Lot 4	32.2257311	-103.5135539	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8204	19817	11817	Y

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

Drilling Plan Data Report
01/06/2021

APD ID: 10400050505
Submission Date: 11/04/2019
Operator Name: KAISER FRANCIS OIL COMPANY
Well Name: BELL LAKE UNIT SOUTH
Well Number: 408H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
577817	---	3613	0	0	OTHER : Surface	NONE	N
577818	RUSTLER	2291	1322	1322	SANDSTONE	NONE	N
577819	SALADO	1941	1672	1672	SALT	NONE	N
577820	TOP SALT	1641	1972	1972	SALT	NONE	N
577821	BASE OF SALT	-1384	4997	4997	SALT	NONE	N
577822	LAMAR	-1559	5172	5172	SANDSTONE	NATURAL GAS, OIL	N
577823	BELL CANYON	-1634	5247	5247	SANDSTONE	NATURAL GAS, OIL	N
577824	CHERRY CANYON	-2459	6072	6072	SANDSTONE	NATURAL GAS, OIL	N
577825	BRUSHY CANYON	-3959	7572	7572	SANDSTONE	NATURAL GAS, OIL	N
577826	BONE SPRING	-5109	8722	8722	LIMESTONE	NATURAL GAS, OIL	N
577827	AVALON SAND	-5366	8979	8979	SANDSTONE	NATURAL GAS, OIL	N
577828	BONE SPRING 1ST	-6209	9822	9822	SANDSTONE	NATURAL GAS, OIL	N
577829	BONE SPRING 2ND	-6804	10417	10417	SANDSTONE	NATURAL GAS, OIL	N
577830	BONE SPRING LIME	-7259	10872	10872	LIMESTONE	NATURAL GAS, OIL	N
577831	BONE SPRING 3RD	-7679	11292	11292	SANDSTONE	NATURAL GAS, OIL	N
577832	WOLFCAMP	-8004	11617	11617	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

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, a blind ram and safety valves and appropriate handles located on 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

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 stated. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. The Annular shall be functionally operated at least weekly. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.
Choke Diagram Attachment:

BLUS_408H_Choke_Manifold_20191101130709.pdf

BOP Diagram Attachment:

BLUS_408H_MultiBowl_Wellhead_20200224113641.pdf

BLUS_408H_BOP_20200224113643.pdf

Cactus_Flex_Hose_16C_Certification_20200224113652.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	1347	0	1347	3613	2266	1347	J-55	40.5	ST&C	2.5	5	DRY	7.7	DRY	11.5
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11187	0	11067		-7454	11187	HCP-110	29.7	LT&C	1.3	1.8	DRY	2.3	DRY	2.9
3	PRODUCTION	6.75	5.5	NEW	API	N	0	19817	0	11817		-8204	19817	P-110	20	OTHER - USS Eagle SFH	1.8	1.9	DRY	2.7	DRY	3.1

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_408H_Casing_AssumptionsRev1_20200224115019.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_408H_Casing_AssumptionsRev1_20200224114951.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_x_20_P110_HP_USS_EAGLE_SFH_Performance_Sheet_20191030092510.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1347	649	1.72	13.5	1122	50	ExtendaCem	Poly E Flake
INTERMEDIATE	Lead		0	11187	837	2.73	11	2287	25	NeoCem	Extender
INTERMEDIATE	Tail		0	11187	572	1.2	15.6	684	25	Halcem	none
PRODUCTION	Lead		9000	19817	849	1.22	14.5	1038	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 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
11067	11817	OIL-BASED MUD	10	12							
1347	11067	OTHER : Diesel-Brine Emulsion	8.8	9.2							
0	1347	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

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:

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

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7374 **Anticipated Surface Pressure:** 4774

Anticipated Bottom Hole Temperature(F): 199

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BLUS_H2S_Contingency_Plan_20191030093542.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BLUS_408H___Directional_Plan_20191101131549.pdf

Other proposed operations facets description:

Gas Capture Plan attached

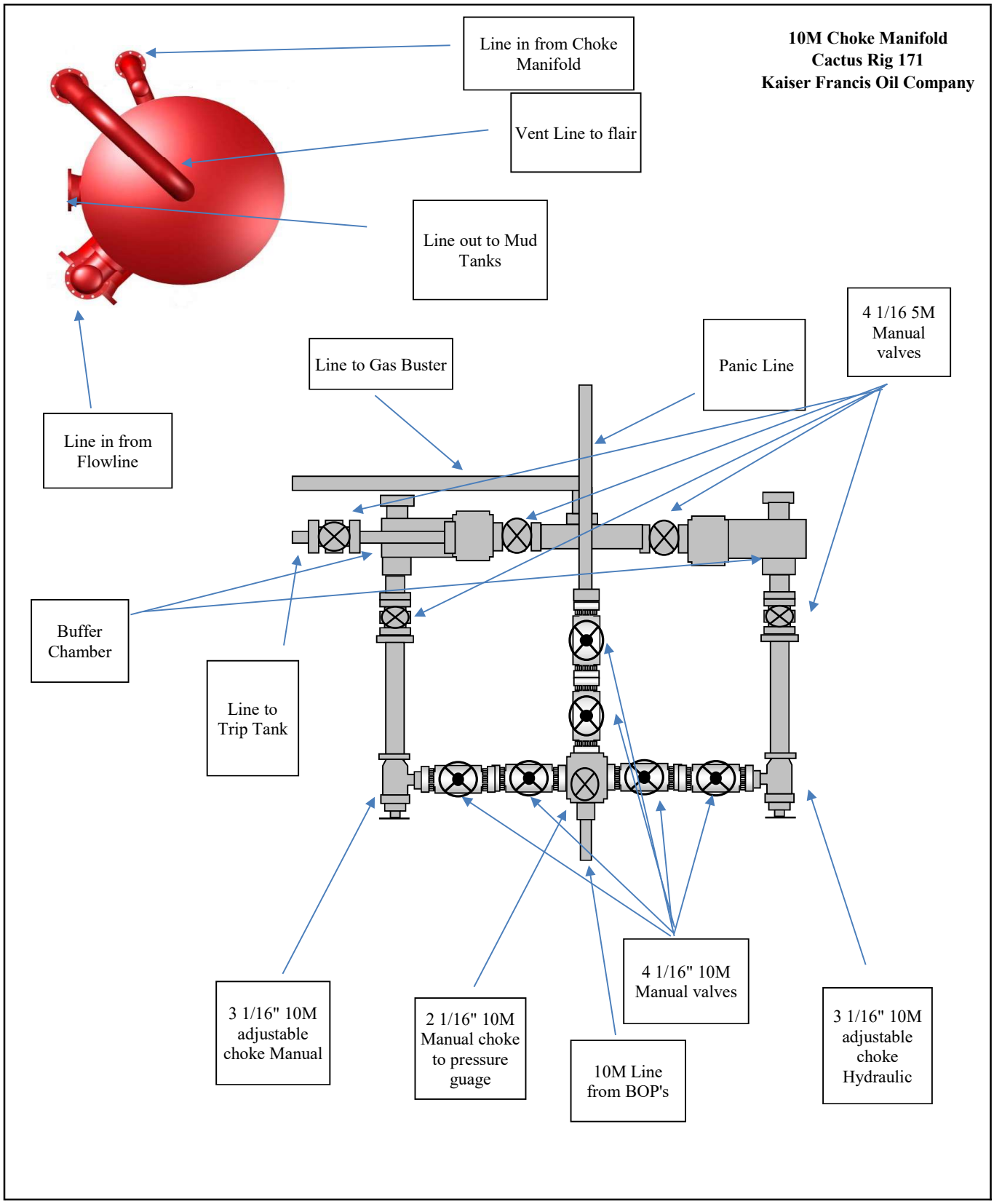
Other proposed operations facets attachment:

BLUS_Pad_6_Gas_Capture_Plan_20191030093629.pdf

Other Variance attachment:

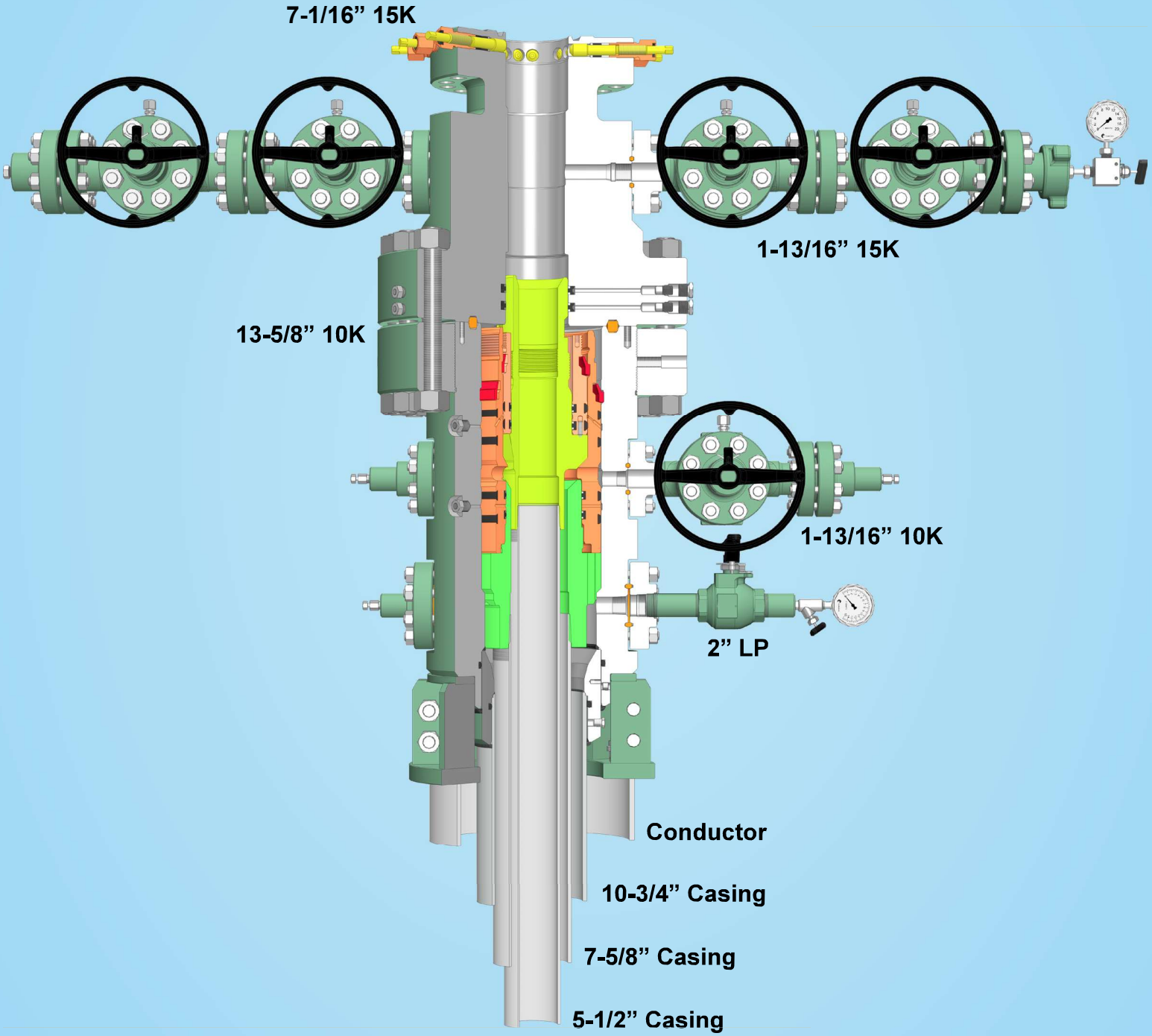
BLUS_408H_Well_Control_Plan_20191104114147.pdf

10M Choke Manifold
Cactus Rig 171
Kaiser Francis Oil Company



CAMERON
A Schlumberger Company

13-5/8” 10K MN-DS Wellhead



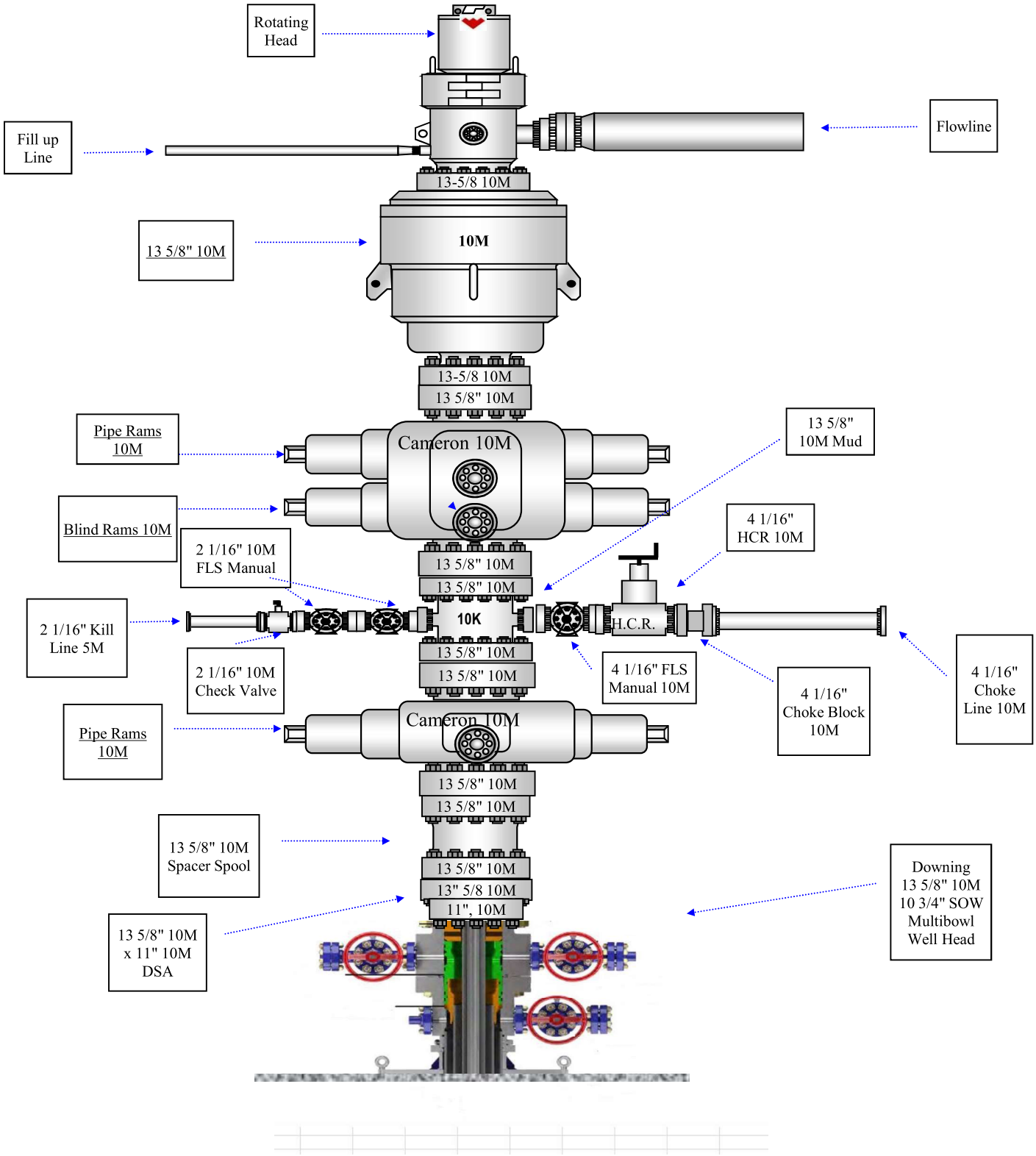
Kaiser-Francis Oil Company

1678248

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

Cactus Rig 171
10M BOP with 10M Annular
Kaiser Francis Oil Company

Hole Sections Utilized
***9 7/8" Hole below Surface Casing**
***6 3/4"Hole below Intermediate casing**



Kaiser-Francis Oil Company
Bell Lake Unit South 408H
Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
Conductor	120	20"				New		120
Surface	1347	10-3/4"	40.5	J-55	STC	New	14-3/4"	1347
Intermediate	11187	7-5/8"	29.7	HCP110	LTC	New	9-7/8"	11067
Production	19817	5-1/2"	20	P110 HP	USS Eagle SFH	New	6-3/4"	11817

Mud Type	Mud Weight Hole Control	Depth	Viscosity	Fluid Loss
FW	8.4 - 9.0	1350'	32 - 34	NC
DBE	8.8-9.2	11426'	28-29	NC
OBM	10.0-12.0	19882'	55-70	

Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength
9	630	1580	3130	629000	420000
9	5179	6700	9460	940000	769000
12	7374	13150	14360	729000	629000

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)
2.5	5.0	11.5	7.7
1.3	1.8	2.9	2.3
1.8	1.9	3.1	2.7

Generated: 10/26/2017

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).

U. S. Steel Tubular Products
10343 Sam Houston Park Dr., #120
Houston, TX 77064
1-877-893-9461
connections@uss.com
www.usstubular.com

Kaiser-Francis Oil Company
Bell Lake Unit South 408H
Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
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2.5	5.0	11.5	7.7
1.3	1.8	2.9	2.3
1.8	1.9	3.1	2.7

KAISER-FRANCIS OIL COMPANY
HYDROGEN SULFIDE (H_2S) CONTINGENCY PLAN
FOR DRILLING/COMPLETION WORKOVER/FACILITY

Bell Lake Unit South
SECTION 1 -T24S-R33E
SECTION 6 -T24S-R34E
SECTION 5 -T24S-R34E

LEA COUNTY, NM

This well/facility is not expected to have H_2S, but due to the sensitive location, the following is submitted as requested.

TABLE OF CONTENTS

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_2S 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_2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H_2S 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_2). 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_2S, 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)

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

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

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

PROTECTION OF THE GENERAL PUBLIC/ROE:

In the event of a release with a concentration greater than 100 ppm H_2S, 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)(concentration)(Q)] (0.6258)

(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)(concentration)(Q)] (.06258)

EXAMPLE: If a well/facility has been determined to have 150 ppm H_2S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFPD then:

ROE for 100 PPM X=[(1.589)(.0150)(200)] (0.6258)
X=2.65'

ROE for 500 PPM X=[(.4546)(.0150)(200)] (0.6258)
X=1.2'

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

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

1) Notification of the emergency response agencies of the hazardous condition and Implement evacuation procedures.

2) A trained person in H_2S safety, shall monitor with detection equipment the H_2S Concentration, wind and area of exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment will be UL approved, for use in class I groups A,B,C & D, Division I, hazardous locations. All monitors will have a minimum capability of measuring H_2S, oxygen, and flammable values.)**

3) Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

4) The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

CHARACTERISTICS OF H_2S AND SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	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 H_2S measures for protection against the gas, equipment used for protection and emergency response. Weekly drills by all crews will be conducted and recorded in the IADC daily log. Additionally, responders must be equipped with H_2S monitors at all times.

PUBLIC RELATIONS

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

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

All contract and Kaiser-Francis employees are instructed **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.

KAISER-FRANCIS OIL COMPANY

Kaiser Francis

Bell Lake Unit South 408H
Bell Lake Unit South 408H
Bell Lake Unit South 408H
Bell Lake Unit South 408H

Plan: 190915 Bell Lake Unit South 408H

Morcor Standard Plan

15 September, 2019

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Project Bell Lake Unit South 408H

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Bell Lake Unit South 408H

Site Position:		**Northing:**	454,529.51 usft	**Latitude:**	32° 14' 48.891 N
From:	Map	**Easting:**	794,947.28 usft	**Longitude:**	103° 30' 46.843 W
Position Uncertainty:	1.0 usft	**Slot Radius:**	17-1/2 "	**Grid Convergence:**	0.44 °

Well Bell Lake Unit South 408H

Well Position	**+N/-S**	0.0 usft	**Northing:**	454,529.51 usft	**Latitude:**	32° 14' 48.891 N
	+E/-W	0.0 usft	**Easting:**	794,947.28 usft	**Longitude:**	103° 30' 46.843 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,613.3 usft

Wellbore Bell Lake Unit South 408H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/15/2019	6.54	60.00	47,809

Design 190915 Bell Lake Unit South 408H

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	180.77

Survey Tool Program **Date** 9/15/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	19,817.7	190915 Bell Lake Unit South 408H (Bell La	MWD	MWD - Standard

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
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Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	-3,635.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
100.0	0.00	0.00	100.0	-3,535.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
120.0	0.00	0.00	120.0	-3,515.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
20" Conductor										
200.0	0.00	0.00	200.0	-3,435.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
300.0	0.00	0.00	300.0	-3,335.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
400.0	0.00	0.00	400.0	-3,235.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
500.0	0.00	0.00	500.0	-3,135.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
600.0	0.00	0.00	600.0	-3,035.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
700.0	0.00	0.00	700.0	-2,935.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
800.0	0.00	0.00	800.0	-2,835.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
900.0	0.00	0.00	900.0	-2,735.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,000.0	0.00	0.00	1,000.0	-2,635.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,100.0	0.00	0.00	1,100.0	-2,535.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,200.0	0.00	0.00	1,200.0	-2,435.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,300.0	0.00	0.00	1,300.0	-2,335.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,322.0	0.00	0.00	1,322.0	-2,313.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Rustler										
1,347.0	0.00	0.00	1,347.0	-2,288.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
13 3/8" Surface Casing										
1,400.0	0.00	0.00	1,400.0	-2,235.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,500.0	0.00	0.00	1,500.0	-2,135.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,600.0	0.00	0.00	1,600.0	-2,035.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,672.0	0.00	0.00	1,672.0	-1,963.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Salado										
1,700.0	0.00	0.00	1,700.0	-1,935.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,800.0	0.00	0.00	1,800.0	-1,835.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1,900.0	0.00	0.00	1,900.0	-1,735.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
1,972.0	0.00	0.00	1,972.0	-1,663.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Top of Salt										
2,000.0	0.00	0.00	2,000.0	-1,635.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,100.0	0.00	0.00	2,100.0	-1,535.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,200.0	0.00	0.00	2,200.0	-1,435.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,300.0	0.00	0.00	2,300.0	-1,335.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,400.0	0.00	0.00	2,400.0	-1,235.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,500.0	0.00	0.00	2,500.0	-1,135.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,600.0	0.00	0.00	2,600.0	-1,035.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,700.0	0.00	0.00	2,700.0	-935.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,800.0	0.00	0.00	2,800.0	-835.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
2,900.0	0.00	0.00	2,900.0	-735.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,000.0	0.00	0.00	3,000.0	-635.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,100.0	0.00	0.00	3,100.0	-535.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,200.0	0.00	0.00	3,200.0	-435.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,300.0	0.00	0.00	3,300.0	-335.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,400.0	0.00	0.00	3,400.0	-235.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,500.0	0.00	0.00	3,500.0	-135.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,600.0	0.00	0.00	3,600.0	-35.3	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,700.0	0.00	0.00	3,700.0	64.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,800.0	0.00	0.00	3,800.0	164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
3,900.0	0.00	0.00	3,900.0	264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,000.0	0.00	0.00	4,000.0	364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,100.0	0.00	0.00	4,100.0	464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,200.0	0.00	0.00	4,200.0	564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,300.0	0.00	0.00	4,300.0	664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,400.0	0.00	0.00	4,400.0	764.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
4,500.0	0.00	0.00	4,500.0	864.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,600.0	0.00	0.00	4,600.0	964.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,700.0	0.00	0.00	4,700.0	1,064.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,800.0	0.00	0.00	4,800.0	1,164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,900.0	0.00	0.00	4,900.0	1,264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
4,997.0	0.00	0.00	4,997.0	1,361.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Base of Salt										
5,000.0	0.00	0.00	5,000.0	1,364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,100.0	0.00	0.00	5,100.0	1,464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,172.0	0.00	0.00	5,172.0	1,536.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Lamar										
5,200.0	0.00	0.00	5,200.0	1,564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,222.0	0.00	0.00	5,222.0	1,586.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
10 3/4" Intermediate Casing										
5,247.0	0.00	0.00	5,247.0	1,611.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Bell Canyon										
5,300.0	0.00	0.00	5,300.0	1,664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,400.0	0.00	0.00	5,400.0	1,764.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,500.0	0.00	0.00	5,500.0	1,864.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,600.0	0.00	0.00	5,600.0	1,964.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,700.0	0.00	0.00	5,700.0	2,064.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,800.0	0.00	0.00	5,800.0	2,164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
5,900.0	0.00	0.00	5,900.0	2,264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,000.0	0.00	0.00	6,000.0	2,364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,072.0	0.00	0.00	6,072.0	2,436.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Cherry Canyon										
6,100.0	0.00	0.00	6,100.0	2,464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,200.0	0.00	0.00	6,200.0	2,564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
6,300.0	0.00	0.00	6,300.0	2,664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,400.0	0.00	0.00	6,400.0	2,764.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,500.0	0.00	0.00	6,500.0	2,864.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,600.0	0.00	0.00	6,600.0	2,964.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,700.0	0.00	0.00	6,700.0	3,064.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,800.0	0.00	0.00	6,800.0	3,164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
6,900.0	0.00	0.00	6,900.0	3,264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,000.0	0.00	0.00	7,000.0	3,364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,100.0	0.00	0.00	7,100.0	3,464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,200.0	0.00	0.00	7,200.0	3,564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,300.0	0.00	0.00	7,300.0	3,664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,400.0	0.00	0.00	7,400.0	3,764.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,500.0	0.00	0.00	7,500.0	3,864.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,522.0	0.00	0.00	7,522.0	3,886.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Brushy Canyon										
7,600.0	0.00	0.00	7,600.0	3,964.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,700.0	0.00	0.00	7,700.0	4,064.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,800.0	0.00	0.00	7,800.0	4,164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
7,900.0	0.00	0.00	7,900.0	4,264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,000.0	0.00	0.00	8,000.0	4,364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,100.0	0.00	0.00	8,100.0	4,464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,200.0	0.00	0.00	8,200.0	4,564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,300.0	0.00	0.00	8,300.0	4,664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,400.0	0.00	0.00	8,400.0	4,764.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,500.0	0.00	0.00	8,500.0	4,864.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,600.0	0.00	0.00	8,600.0	4,964.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,700.0	0.00	0.00	8,700.0	5,064.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
8,722.0	0.00	0.00	8,722.0	5,086.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Bone Spring										
8,800.0	0.00	0.00	8,800.0	5,164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,900.0	0.00	0.00	8,900.0	5,264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
8,979.0	0.00	0.00	8,979.0	5,343.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Avalon										
9,000.0	0.00	0.00	9,000.0	5,364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,100.0	0.00	0.00	9,100.0	5,464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,200.0	0.00	0.00	9,200.0	5,564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,300.0	0.00	0.00	9,300.0	5,664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,400.0	0.00	0.00	9,400.0	5,764.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,500.0	0.00	0.00	9,500.0	5,864.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,600.0	0.00	0.00	9,600.0	5,964.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,700.0	0.00	0.00	9,700.0	6,064.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,800.0	0.00	0.00	9,800.0	6,164.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
9,822.0	0.00	0.00	9,822.0	6,186.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
1st BS Sand										
9,900.0	0.00	0.00	9,900.0	6,264.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
10,000.0	0.00	0.00	10,000.0	6,364.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
10,100.0	0.00	0.00	10,100.0	6,464.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
10,200.0	0.00	0.00	10,200.0	6,564.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
10,300.0	0.00	0.00	10,300.0	6,664.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
10,375.0	0.00	0.00	10,375.0	6,739.7	0.0	0.0	794,947.28	454,529.51	0.00	0.00
Start Build 10.00										
10,400.0	2.50	356.28	10,400.0	6,764.7	0.5	0.0	794,947.24	454,530.05	-0.54	10.00
10,417.0	4.20	356.28	10,417.0	6,781.7	1.5	-0.1	794,947.18	454,531.05	-1.54	10.00
2nd BS Sand										
10,500.0	12.50	356.28	10,499.0	6,863.7	13.6	-0.9	794,946.40	454,543.06	-13.54	10.00

Morcor Engineering
Morcor Standard Plan

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Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
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Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
10,600.0	22.50	356.28	10,594.3	6,959.0	43.5	-2.8	794,944.45	454,573.03	-43.48	10.00
10,700.0	32.50	356.28	10,682.9	7,047.6	89.5	-5.8	794,941.46	454,619.05	-89.45	10.00
10,800.0	42.50	356.28	10,762.1	7,126.8	150.2	-9.8	794,937.51	454,679.72	-150.07	10.00
10,877.9	50.29	356.28	10,815.8	7,180.5	206.5	-13.4	794,933.86	454,735.96	-206.25	10.00
Start DLS 10.08 TFO -174.07										
10,900.0	48.07	355.97	10,830.2	7,194.9	223.1	-14.6	794,932.73	454,752.65	-222.93	10.08
10,959.2	42.14	355.02	10,872.0	7,236.7	265.0	-17.8	794,929.45	454,794.46	-264.69	10.08
3rd BS Lime										
11,000.0	38.06	354.23	10,903.2	7,267.9	291.1	-20.3	794,927.00	454,820.60	-290.79	10.08
11,100.0	28.09	351.48	10,986.9	7,351.6	345.2	-26.9	794,920.40	454,874.69	-344.79	10.08
11,187.6	19.43	347.01	11,067.0	7,431.7	379.8	-33.2	794,914.05	454,909.36	-379.36	10.08
7 5/8" 2nd Intermediate Casing										
11,200.0	18.22	346.05	11,078.7	7,443.4	383.7	-34.2	794,913.12	454,913.24	-383.24	10.08
11,300.0	8.84	329.21	11,175.9	7,540.6	405.6	-41.9	794,905.40	454,935.07	-404.96	10.08
11,400.0	5.20	241.25	11,275.3	7,640.0	410.0	-49.8	794,897.48	454,939.50	-409.28	10.08
11,416.8	6.19	227.39	11,292.0	7,656.7	409.0	-51.1	794,896.14	454,938.52	-408.28	10.08
3rd BS Sand										
11,500.0	13.38	199.68	11,374.0	7,738.7	396.9	-57.7	794,889.58	454,926.39	-396.06	10.08
11,600.0	23.10	190.86	11,468.9	7,833.6	366.6	-65.3	794,881.97	454,896.15	-365.73	10.08
11,700.0	33.04	187.12	11,557.0	7,921.7	320.2	-72.4	794,874.88	454,849.71	-319.20	10.08
11,774.9	40.52	185.43	11,617.0	7,981.7	275.6	-77.2	794,870.04	454,805.16	-274.58	10.08
Wolfcamp										
11,800.0	43.03	184.98	11,635.7	8,000.4	259.0	-78.8	794,868.52	454,788.52	-257.92	10.08
11,900.0	53.06	183.52	11,702.5	8,067.2	184.9	-84.2	794,863.09	454,714.44	-183.78	10.08
12,000.0	63.10	182.40	11,755.3	8,120.0	100.3	-88.5	794,858.77	454,629.79	-99.07	10.08
12,100.0	73.14	181.46	11,792.5	8,157.2	7.7	-91.6	794,855.67	454,537.17	-6.42	10.08
12,200.0	83.19	180.62	11,813.0	8,177.7	-90.1	-93.4	794,853.90	454,439.43	91.33	10.08

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
12,267.7	90.00	180.08	11,817.0	8,181.7	-157.7	-93.8	794,853.49	454,371.86	158.90	10.08
Start 7549.9 hold at 12267.7 MD										
12,300.0	90.00	180.08	11,817.0	8,181.7	-189.9	-93.8	794,853.45	454,339.59	191.17	0.00
12,400.0	90.00	180.08	11,817.0	8,181.7	-289.9	-94.0	794,853.31	454,239.59	291.16	0.00
12,500.0	90.00	180.08	11,817.0	8,181.7	-389.9	-94.1	794,853.17	454,139.59	391.15	0.00
12,600.0	90.00	180.08	11,817.0	8,181.7	-489.9	-94.2	794,853.04	454,039.59	491.14	0.00
12,700.0	90.00	180.08	11,817.0	8,181.7	-589.9	-94.4	794,852.90	453,939.59	591.14	0.00
12,800.0	90.00	180.08	11,817.0	8,181.7	-689.9	-94.5	794,852.76	453,839.59	691.13	0.00
12,900.0	90.00	180.08	11,817.0	8,181.7	-789.9	-94.7	794,852.62	453,739.59	791.12	0.00
13,000.0	90.00	180.08	11,817.0	8,181.7	-889.9	-94.8	794,852.49	453,639.59	891.12	0.00
13,100.0	90.00	180.08	11,817.0	8,181.7	-989.9	-94.9	794,852.35	453,539.59	991.11	0.00
13,200.0	90.00	180.08	11,817.0	8,181.7	-1,089.9	-95.1	794,852.21	453,439.59	1,091.10	0.00
13,300.0	90.00	180.08	11,817.0	8,181.7	-1,189.9	-95.2	794,852.08	453,339.59	1,191.09	0.00
13,400.0	90.00	180.08	11,817.0	8,181.7	-1,289.9	-95.3	794,851.94	453,239.59	1,291.09	0.00
13,500.0	90.00	180.08	11,817.0	8,181.7	-1,389.9	-95.5	794,851.80	453,139.59	1,391.08	0.00
13,600.0	90.00	180.08	11,817.0	8,181.7	-1,489.9	-95.6	794,851.67	453,039.59	1,491.07	0.00
13,700.0	90.00	180.08	11,817.0	8,181.7	-1,589.9	-95.7	794,851.53	452,939.59	1,591.06	0.00
13,800.0	90.00	180.08	11,817.0	8,181.7	-1,689.9	-95.9	794,851.39	452,839.59	1,691.06	0.00
13,900.0	90.00	180.08	11,817.0	8,181.7	-1,789.9	-96.0	794,851.26	452,739.59	1,791.05	0.00
14,000.0	90.00	180.08	11,817.0	8,181.7	-1,889.9	-96.2	794,851.12	452,639.59	1,891.04	0.00
14,100.0	90.00	180.08	11,817.0	8,181.7	-1,989.9	-96.3	794,850.98	452,539.59	1,991.03	0.00
14,200.0	90.00	180.08	11,817.0	8,181.7	-2,089.9	-96.4	794,850.85	452,439.59	2,091.03	0.00
14,300.0	90.00	180.08	11,817.0	8,181.7	-2,189.9	-96.6	794,850.71	452,339.59	2,191.02	0.00
14,400.0	90.00	180.08	11,817.0	8,181.7	-2,289.9	-96.7	794,850.57	452,239.60	2,291.01	0.00
14,500.0	90.00	180.08	11,817.0	8,181.7	-2,389.9	-96.8	794,850.44	452,139.60	2,391.00	0.00
14,600.0	90.00	180.08	11,817.0	8,181.7	-2,489.9	-97.0	794,850.30	452,039.60	2,491.00	0.00
14,700.0	90.00	180.08	11,817.0	8,181.7	-2,589.9	-97.1	794,850.16	451,939.60	2,590.99	0.00

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
14,800.0	90.00	180.08	11,817.0	8,181.7	-2,689.9	-97.3	794,850.03	451,839.60	2,690.98	0.00
14,900.0	90.00	180.08	11,817.0	8,181.7	-2,789.9	-97.4	794,849.89	451,739.60	2,790.98	0.00
15,000.0	90.00	180.08	11,817.0	8,181.7	-2,889.9	-97.5	794,849.75	451,639.60	2,890.97	0.00
15,100.0	90.00	180.08	11,817.0	8,181.7	-2,989.9	-97.7	794,849.61	451,539.60	2,990.96	0.00
15,200.0	90.00	180.08	11,817.0	8,181.7	-3,089.9	-97.8	794,849.48	451,439.60	3,090.95	0.00
15,300.0	90.00	180.08	11,817.0	8,181.7	-3,189.9	-97.9	794,849.34	451,339.60	3,190.95	0.00
15,400.0	90.00	180.08	11,817.0	8,181.7	-3,289.9	-98.1	794,849.20	451,239.60	3,290.94	0.00
15,500.0	90.00	180.08	11,817.0	8,181.7	-3,389.9	-98.2	794,849.07	451,139.60	3,390.93	0.00
15,600.0	90.00	180.08	11,817.0	8,181.7	-3,489.9	-98.3	794,848.93	451,039.60	3,490.92	0.00
15,700.0	90.00	180.08	11,817.0	8,181.7	-3,589.9	-98.5	794,848.79	450,939.60	3,590.92	0.00
15,800.0	90.00	180.08	11,817.0	8,181.7	-3,689.9	-98.6	794,848.66	450,839.60	3,690.91	0.00
15,900.0	90.00	180.08	11,817.0	8,181.7	-3,789.9	-98.8	794,848.52	450,739.60	3,790.90	0.00
16,000.0	90.00	180.08	11,817.0	8,181.7	-3,889.9	-98.9	794,848.38	450,639.60	3,890.89	0.00
16,100.0	90.00	180.08	11,817.0	8,181.7	-3,989.9	-99.0	794,848.25	450,539.60	3,990.89	0.00
16,200.0	90.00	180.08	11,817.0	8,181.7	-4,089.9	-99.2	794,848.11	450,439.60	4,090.88	0.00
16,300.0	90.00	180.08	11,817.0	8,181.7	-4,189.9	-99.3	794,847.97	450,339.60	4,190.87	0.00
16,400.0	90.00	180.08	11,817.0	8,181.7	-4,289.9	-99.4	794,847.84	450,239.60	4,290.86	0.00
16,500.0	90.00	180.08	11,817.0	8,181.7	-4,389.9	-99.6	794,847.70	450,139.60	4,390.86	0.00
16,600.0	90.00	180.08	11,817.0	8,181.7	-4,489.9	-99.7	794,847.56	450,039.60	4,490.85	0.00
16,700.0	90.00	180.08	11,817.0	8,181.7	-4,589.9	-99.9	794,847.43	449,939.60	4,590.84	0.00
16,800.0	90.00	180.08	11,817.0	8,181.7	-4,689.9	-100.0	794,847.29	449,839.60	4,690.84	0.00
16,900.0	90.00	180.08	11,817.0	8,181.7	-4,789.9	-100.1	794,847.15	449,739.60	4,790.83	0.00
17,000.0	90.00	180.08	11,817.0	8,181.7	-4,889.9	-100.3	794,847.02	449,639.60	4,890.82	0.00
17,100.0	90.00	180.08	11,817.0	8,181.7	-4,989.9	-100.4	794,846.88	449,539.60	4,990.81	0.00
17,200.0	90.00	180.08	11,817.0	8,181.7	-5,089.9	-100.5	794,846.74	449,439.60	5,090.81	0.00
17,300.0	90.00	180.08	11,817.0	8,181.7	-5,189.9	-100.7	794,846.60	449,339.60	5,190.80	0.00
17,400.0	90.00	180.08	11,817.0	8,181.7	-5,289.9	-100.8	794,846.47	449,239.60	5,290.79	0.00

Morcor Engineering

Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
17,500.0	90.00	180.08	11,817.0	8,181.7	-5,389.9	-100.9	794,846.33	449,139.60	5,390.78	0.00
17,600.0	90.00	180.08	11,817.0	8,181.7	-5,489.9	-101.1	794,846.19	449,039.60	5,490.78	0.00
17,700.0	90.00	180.08	11,817.0	8,181.7	-5,589.9	-101.2	794,846.06	448,939.60	5,590.77	0.00
17,800.0	90.00	180.08	11,817.0	8,181.7	-5,689.9	-101.4	794,845.92	448,839.60	5,690.76	0.00
17,900.0	90.00	180.08	11,817.0	8,181.7	-5,789.9	-101.5	794,845.78	448,739.60	5,790.75	0.00
18,000.0	90.00	180.08	11,817.0	8,181.7	-5,889.9	-101.6	794,845.65	448,639.60	5,890.75	0.00
18,100.0	90.00	180.08	11,817.0	8,181.7	-5,989.9	-101.8	794,845.51	448,539.60	5,990.74	0.00
18,200.0	90.00	180.08	11,817.0	8,181.7	-6,089.9	-101.9	794,845.37	448,439.60	6,090.73	0.00
18,300.0	90.00	180.08	11,817.0	8,181.7	-6,189.9	-102.0	794,845.24	448,339.60	6,190.72	0.00
18,400.0	90.00	180.08	11,817.0	8,181.7	-6,289.9	-102.2	794,845.10	448,239.60	6,290.72	0.00
18,500.0	90.00	180.08	11,817.0	8,181.7	-6,389.9	-102.3	794,844.96	448,139.60	6,390.71	0.00
18,600.0	90.00	180.08	11,817.0	8,181.7	-6,489.9	-102.5	794,844.83	448,039.60	6,490.70	0.00
18,700.0	90.00	180.08	11,817.0	8,181.7	-6,589.9	-102.6	794,844.69	447,939.60	6,590.70	0.00
18,800.0	90.00	180.08	11,817.0	8,181.7	-6,689.9	-102.7	794,844.55	447,839.60	6,690.69	0.00
18,900.0	90.00	180.08	11,817.0	8,181.7	-6,789.9	-102.9	794,844.42	447,739.60	6,790.68	0.00
19,000.0	90.00	180.08	11,817.0	8,181.7	-6,889.9	-103.0	794,844.28	447,639.60	6,890.67	0.00
19,100.0	90.00	180.08	11,817.0	8,181.7	-6,989.9	-103.1	794,844.14	447,539.60	6,990.67	0.00
19,200.0	90.00	180.08	11,817.0	8,181.7	-7,089.9	-103.3	794,844.01	447,439.60	7,090.66	0.00
19,300.0	90.00	180.08	11,817.0	8,181.7	-7,189.9	-103.4	794,843.87	447,339.60	7,190.65	0.00
19,400.0	90.00	180.08	11,817.0	8,181.7	-7,289.9	-103.5	794,843.73	447,239.60	7,290.64	0.00
19,500.0	90.00	180.08	11,817.0	8,181.7	-7,389.9	-103.7	794,843.59	447,139.60	7,390.64	0.00
19,600.0	90.00	180.08	11,817.0	8,181.7	-7,489.9	-103.8	794,843.46	447,039.60	7,490.63	0.00
19,700.0	90.00	180.08	11,817.0	8,181.7	-7,589.9	-104.0	794,843.32	446,939.60	7,590.62	0.00
19,800.0	90.00	180.08	11,817.0	8,181.7	-7,689.9	-104.1	794,843.18	446,839.60	7,690.61	0.00
19,817.7	90.00	180.08	11,817.0	8,181.7	-7,707.6	-104.1	794,843.16	446,821.92	7,708.29	0.00
TD at 19817.7										

Morcor Engineering
Morcor Standard Plan

Company:	Kaiser Francis	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 408H
Project:	Bell Lake Unit South 408H	**TVD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
120.0	120.0	20" Conductor	20	26
19,817.7	11,817.0	5 1/2" Production Casing	5-1/2	6-3/4
11,187.6	11,067.0	7 5/8" 2nd Intermediate Casing	7-5/8	9-7/8
1,347.0	1,347.0	13 3/8" Surface Casing	13-3/8	17-1/2
5,222.0	5,222.0	10 3/4" Intermediate Casing	10-3/4	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
11,416.8	11,292.0	3rd BS Sand		0.00	
4,997.0	4,997.0	Base of Salt		0.00	
6,072.0	6,072.0	Cherry Canyon		0.00	
10,417.0	10,417.0	2nd BS Sand		0.00	
5,172.0	5,172.0	Lamar		0.00	
9,822.0	9,822.0	1st BS Sand		0.00	
8,722.0	8,722.0	Bone Spring		0.00	
1,322.0	1,322.0	Rustler		0.00	
5,247.0	5,247.0	Bell Canyon		0.00	
1,672.0	1,672.0	Salado		0.00	
1,972.0	1,972.0	Top of Salt		0.00	
8,979.0	8,979.0	Avalon		0.00	
7,522.0	7,522.0	Brushy Canyon		0.00	
10,959.2	10,872.0	3rd BS Lime		0.00	
11,774.9	11,617.0	Wolfcamp		0.00	

Morcor Engineering
Morcor Standard Plan

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Site:	Bell Lake Unit South 408H	**MD Reference:**	WELL @ 3635.3usft (Original Well Elev)
Well:	Bell Lake Unit South 408H	**North Reference:**	Grid
Wellbore:	Bell Lake Unit South 408H	**Survey Calculation Method:**	Minimum Curvature
Design:	190915 Bell Lake Unit South 408H	**Database:**	EDM 5000.1 Single User Db

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,375.0	10,375.0	0.0	0.0	Start Build 10.00
10,877.9	10,815.8	206.5	-13.4	Start DLS 10.08 TFO -174.07
12,267.7	11,817.0	-157.7	-93.8	Start 7549.9 hold at 12267.7 MD
19,817.7	11,817.0	-7,707.6	-104.1	TD at 19817.7

Checked By: _____ Approved By: _____ Date: _____

KFOC
Well Control Plan

A. Component and Preventer Compatibility Table

Component	OD	Preventer	RWP
Drill Pipe	4 1/2"	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Heavyweight Drill Pipe	4 1/2"	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Drill Collars & MWD Tools	6 1/4"-4 ¾"	Annular Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	5M 10M 10M
Mud Motor	8"-4 3/4"	Annular Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	5M 10M 10M
Production Casing	5 1/2"	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
All	0 – 13 5/8"	Annular	5M
Open Hole		Blind Rams	10M

B. Well Control Procedures

I. General Procedures While Drilling:
- a. Sound alarm – alert crew
- b. Space out drill string
- c. Shut down pumps and stop rotary
- d. Open HCR
- e. Shut well in, utilizing upper VBRs
- f. Close choke
- g. Confirm shut in
- h. Notify rig manager and KFOC, Inc. company representative
- i. Call KFOC, Inc. engineer
- j. Read and record:
  - i. Shut in drill pressure and shut in casing pressure
  - ii. Pit gain
  - iii. Time
- k. Regroup, identify forward plan

II. General Procedures While Tripping:
- a. Sound alarm – alert crew
- b. Stab full opening safety valve and close
- c. Space out drill string
- d. Open HCR
- e. Shut well in, utilizing upper VBRs
- f. Close choke
- g. Confirm shut in
- h. Notify rig manager and KFOC. company representative
- i. Call KFOC. engineer

KFOC
Well Control Plan

j. Read and record:
   i. Shut in drill pressure and shut in casing pressure
   ii. Pit gain
   iii. Time
k. Regroup, identify forward plan

III. General Procedures While Running Casing:
a. Sound alarm – alert crew
b. Stab full opening safety valve and close
c. Space out drill string
d. Open HCR
e. Shut well in, utilizing upper VBRs
f. Close choke
g. Confirm shut in
h. Notify rig manager and KFOC company representative
i. Call KFOC engineer
j. Read and record:
   i. Shut in drill pressure and shut in casing pressure
   ii. Pit gain
   iii. Time
k. Regroup, identify forward plan

IV. General Procedures With No Pipe in Hole (Open Hole):
a. Sound alarm – alert crew
b. Open HCR
c. Shut well in with blind rams
d. Close choke
e. Confirm shut in
f. Notify rig manager and KFOC company representative
g. Call KFOC engineer
h. Read and record:
i. Shut in drill pressure and shut in casing pressure
   ii. Pit gain
   iii. Time
j. Regroup, identify forward plan

V. General Procedures While Pulling BHL Through BOP Stack:

1. Prior to pulling last joint of drill pipe through stack A.
   Perform flow check and if flowing:
   a. Sound alarm – alert crew
   b. Stab full opening safety valve and close
   c. Space out drill string with tool joint just beneath upper pipe ram
   d. Open HCR
   e. Shut well in utilizing upper VBRs
   f. Close choke
   g. Confirm shut in
   h. Notify rig manager and KFOC company representative
   i. Call KFOC engineer

KFOC
Well Control Plan

j. Read and record:
   i. Shut in drill pressure and shut in casing pressure
   ii. Pit gain
   iii. Time
k. Regroup, identify forward plan

2. With BHL in the BOP stack and compatible ram preventer and pipe combo immediately available.
   a. Sound alarm – alert crew
   b. Stab full opening safety valve and close
   c. Space out drill string with tool joint just beneath upper pipe ram
   d. Open HCR
   e. Shut well in utilizing upper VBRs
   f. Close choke
   g. Confirm shut in
   h. Notify rig manager and KFOC. company representative
   i. Call KFOC engineer
   j. Read and record:
      i. Shut in drill pressure and shut in casing pressure
      ii. Pit gain
      iii. Time
   k. Regroup, identify forward plan

3. With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately available
   a. Sound alarm – alert crew
   b. If possible to pick up high enough, pull string clear of the stack and follow Open Hole scenario (III)
   c. If impossible to pick up high enough to pull the string clear of the stack:
      i. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close
      ii. Space out drill string with tool joint just beneath the upper pipe ram
      iii. Open HCR
      iv. Shut in utilizing upper VBRs
      v. Close choke
      vi. Confirm shut in
      vii. Notify rig manager and Mesquite SWD, Inc. company representative
      viii. Read and record:
         1. Shut in drill pipe pressure and shut in casing pressure
         2. Pit gain
         3. Time
   d. Regroup and identify forward plan

** If annular is used to shut in well and pressure build to or is expected to get to 50% of RWP, confirm space-out and swap to upper VBRs for shut in.

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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	[2] Pool Code	[3] Pool Name
30-025-	98266	Bell Lake; Wolfcamp, South

[4] Property Code	[5] Property Name	[6] Well Number
	BELL LAKE UNIT SOUTH	408H

[7] OGRID No.	[8] Operator Name	[9] Elevation
12361	KAISER-FRANCIS OIL COMPANY	3613.3

[10] Surface Location

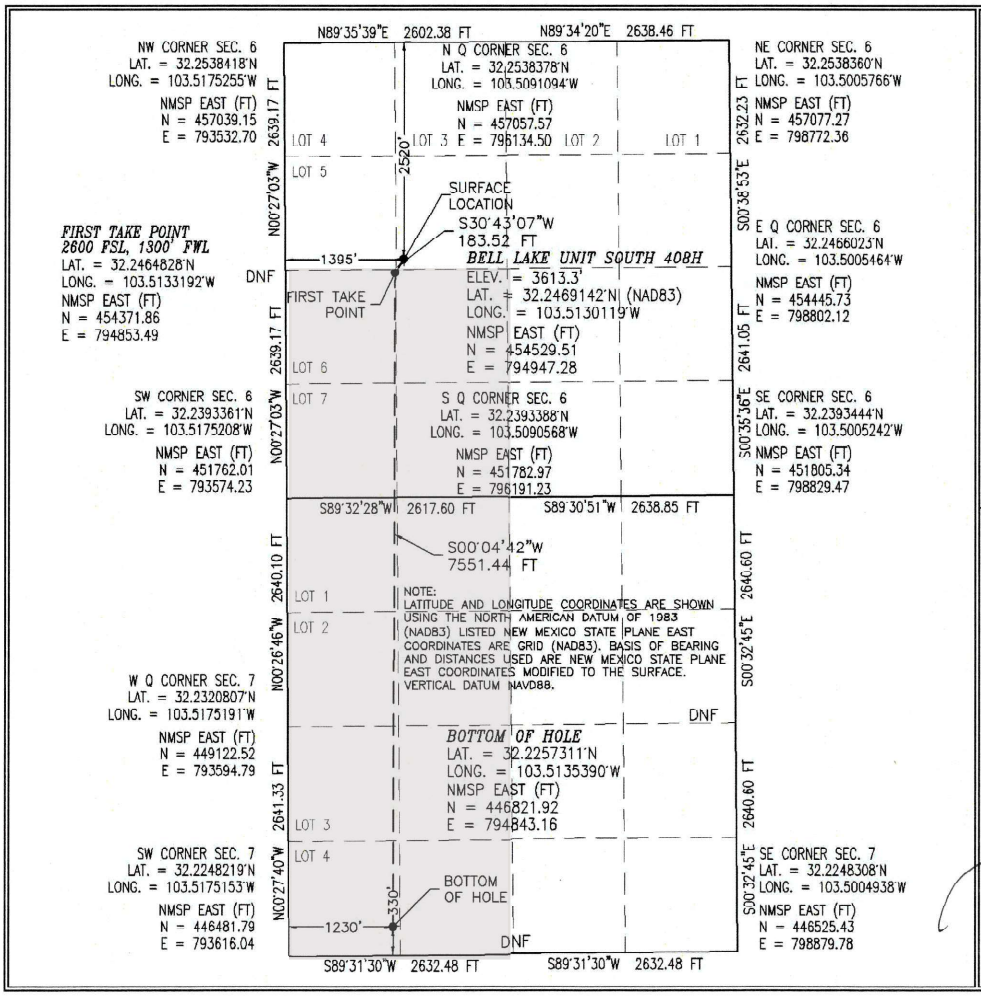
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	24 S	34 E		2520	NORTH	1395	WEST	LEA

[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
4	7	24 S	34 E		330	SOUTH	1230	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
480			R-14601

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.

Stormi Davis 11/1/19
Signature Date

Stormi Davis
Printed Name

ssdavis104@gmail.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

JANUARY 28, 2018
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: FILIMON F. JARAMILLO, PLS 12797

SURVEY NO. 5936A

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Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: **07/02/2018**

☒ 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, recomplete to new zone, re-frac) activity.

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Bell Lake Unit South 207H				2000	0	
Bell Lake Unit South 407H				3000	0	
Bell Lake Unit South 208H				2000	0	
Bell Lake Unit South 408H				3000	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
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Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-48363	98266	Bell Lake;.Wolfcamp, South

[4] Property Code	[5] Property Name	[6] Well Number
316706	BELL LAKE UNIT SOUTH	408H

[7] OGRID No.	[8] Operator Name	[9] Elevation
12361	KAISER-FRANCIS OIL COMPANY	3613.3

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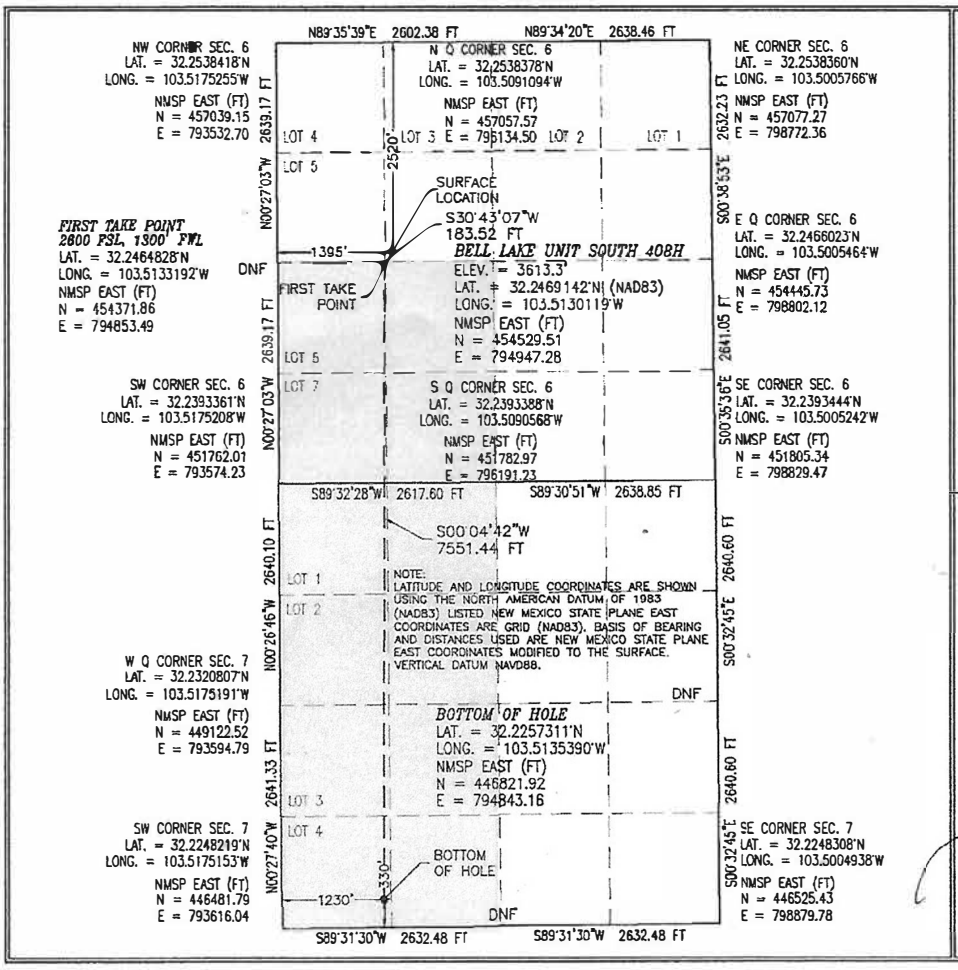

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Stormi Davis 11/1/19
Signature Date

Stormi Davis
Printed Name

ssdavis104@gmail.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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☒ Original
☐ Amended - Reason for Amendment:

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Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

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, a blind ram and safety valves and appropriate handles located on 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

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 stated. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. The Annular shall be functionally operated at least weekly. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

Choke Diagram Attachment:

BLUS_408H_Choke_Manifold_20191101130709.pdf

BOP Diagram Attachment:

BLUS_408H_MultiBowl_Wellhead_20200224113641.pdf

BLUS_408H_BOP_20200224113643.pdf

Cactus_Flex_Hose_16C_Certification_20200224113652.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	1347	0	1347	3613	2266	1347	J-55	40.5	ST&C	2.5	5	DRY	7.7	DRY	11.5
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11187	0	11067		-7454	11187	HCP-110	29.7	LT&C	1.3	1.8	DRY	2.3	DRY	2.9
3	PRODUCTION	6.75	5.5	NEW	API	N	0	19817	0	11817		-8204	19817	P-110	20	OTHER - USS Eagle SFH	1.8	1.9	DRY	2.7	DRY	3.1

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_408H_Casing_AssumptionsRev1_20200224115019.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_408H_Casing_AssumptionsRev1_20200224114951.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_x_20_P110_HP_USS_EAGLE_SFH_Performance_Sheet_20191030092510.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 408H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1347	649	1.72	13.5	1122	50	ExtendaCem	Poly E Flake
INTERMEDIATE	Lead		0	11187	837	2.73	11	2287	25	NeoCem	Extender
INTERMEDIATE	Tail		0	11187	572	1.2	15.6	684	25	Halcem	none
PRODUCTION	Lead		9000	19817	849	1.22	14.5	1038	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 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
11067	11817	OIL-BASED MUD	10	12							
1347	11067	OTHER : Diesel-Brine Emulsion	8.8	9.2							
0	1347	OTHER : Fresh Water	8.4	9							

Date: January 8, 2021

To: NMOCD

From: Charlotte Van Valkenburg

Re: Closed-Loop System

It is the intention of Kaiser-Francis Oil Company to use a closed-loop system during drilling of the following well:

Bell Lake Unit South #408H
Sec. 6-24S-34E
Lea Co., NM

C. Van Valkenburg

Charlotte Van Valkenburg
Mgr., Regulatory Compliance
Kaiser-Francis Oil Company

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Santa Fe, NM 87505

CONDITIONS

Action 14492

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
KAISER-FRANCIS OIL CO P.O. Box 21468 Tulsa, OK74121	12361	14492	FORM 3160-3

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and 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