Form 3160-3
(June 2015)

HOBBS OCD

DEC 05 2019

RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0061374A

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 / NMNM068292X

8. Lease Name and Well No.
BELL LAKE UNIT SOUTH
215H (316706)

2. Name of Operator
KAISER FRANCIS OIL COMPANY (12361)

9. API Well No.
30-025-46591

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

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

10. Field and Pool, or Exploratory
BELL LAKE / BONE SPRING, SOUTH (98264)

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

At surface SENW / 2239 FNL / 1744 FWL / LAT 32.247682 / LONG -103.49491

At proposed prod. zone SESW / 330 FSL / 2110 FWL / LAT 32.225735 / LONG -103.493672

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 5 / 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)
0 feet

16. No of acres in lease
440

17. Spacing Unit dedicated to this well
240

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
614 feet

19. Proposed Depth
10862 feet / 18701 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3600 feet

22. Approximate date work will start*
04/01/2019

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)	Melanie Wilson / Ph: (918)527-5260	01/11/2019

Title: Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	11/15/2019

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

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

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

GCP Rec 12/05/19

APPROVED WITH CONDITIONS

KZ 12/11/19

SL

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/15/2019

Additional Operator Remarks

Location of Well

1. SHL: SENW / 2239 FNL / 1744 FWL / TWSP: 24S / RANGE: 34E / SECTION: 5 / LAT: 32.247682 / LONG: -103.49491 (TVD: 0 feet, MD: 0 feet)
   PPP: NESW / 2600 FSL / 2250 FWL / TWSP: 24S / RANGE: 34E / SECTION: 5 / LAT: 32.246485 / LONG: -103.493269 (TVD: 10862 feet, MD: 11200 feet)
   PPP: NESW / 2640 FSL / 2156 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.232084 / LONG: -103.493549 (TVD: 10862 feet, MD: 16400 feet)
   PPP: SWNE / 1320 FNL / 2190 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.2357104 / LONG: -103.5077838 (TVD: 10862 feet, MD: 15100 feet)
   BHL: SESW / 330 FSL / 2110 FWL / TWSP: 24S / RANGE: 34E / SECTION: 8 / LAT: 32.225735 / LONG: -103.493672 (TVD: 10862 feet, MD: 18701 feet)

BLM Point of Contact

Name: Tanja Baca
Title: Admin Support Assistant
Phone: 5752345940
Email: tabaca@blm.gov

Review and Appeal Rights

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

PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Kaiser Francis**
LEASE NO.:	**NMLC0061374A**
WELL NAME & NO.:	**Bell Lake Unit South 215H**
SURFACE HOLE FOOTAGE:	**2239' FNL & 1744' FWL**
BOTTOM HOLE FOOTAGE	**330' FSL & 2110' FWL**
LOCATION:	**Section 5, T 24S, R 34E, NMPM**
COUNTY:	**Lea County, New Mexico**

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
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

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated **500 feet** prior to drilling into the **Bell Lake** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8"** surface casing shall be set at approximately **1350'** (a minimum of 25' into the Rustler Anhydrite and above the salt) and cemented to surface.
   a. **If cement does not circulate to 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 **6 hours** after pumping cement, ideally between 8-10 hours after.
   b. WOC time for a primary cement job will be a minimum of **8 hours** or **500 psi** compressive strength, whichever is greater. This is to include the lead cement.
   c. If cement falls back, remedial cementing will be done prior to drilling out the shoe.
   d. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi compressive strength, whichever is greater.

Approval Date: 11/15/2019

2. The **9-5/8"** intermediate casing shall be cemented to surface.
   a. **If cement does not circulate to surface,** see B.1.a, c & d.
3. The **5-1/2"** production casing shall be cemented with at least **200' tie-back** into the previous casing. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.
3. Variance for the use of a flex hose between the BOP and choke manifold is approved, however, the hose must meet API 16C specification as described in the attachments following these conditions.

D. SPECIAL REQUIREMENTS

1. 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 once it has been established.
   a. A commercial well determination shall be submit after production has been established for at least six months. Secondary recovery unit wells are exempt from this requirement.

DR 11/5/2019

Approval Date: 11/15/2019

GENERAL REQUIREMENTS

1. The BLM is to be notified in advance for a representative to witness:
   a. Spudding the well (minimum of 24 hours)
   b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
   c. BOP/BOPE tests (minimum of 4 hours)
      ☒ Eddy County: Call the Carlsbad Field Office, (575) 361-2822
      ☒ Lea County: Call the Hobbs Field Station, (575) 393-3612
2. 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:
      i. Notify the BLM when moving in and removing the Spudder Rig.
      ii. 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.
      iii. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
3. 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.
4. 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 available upon request. 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 the portion of 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. 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. 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 Onshore Order 2 III.A.2.i must be followed.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the BOP/BOPE 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 which 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. The results of the test shall be made available upon request.
   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 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. This test shall be performed prior to the test at full stack pressure.

f. BOP/BOPE must be tested 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

1. 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

1. 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.
2. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Kaiser Francis Oil Company
LEASE NO.:	NMLC0061374A
WELL NAME & NO.:	Bell Lake Unit South 215H
SURFACE HOLE FOOTAGE:	2239' FNL & 1744' FWL, Sec. 5, T. 24 S., R. 34 E.
BOTTOM HOLE FOOTAGE	330' FSL & 2110' FWL, Sec. 8, T. 24 S, R 34 E.
LOCATION:	Sec. 5, T. 24 S., R. 34 E.
COUNTY:	Lea County

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

☐ **General Provisions**
☐ **Permit Expiration**
☐ **Archaeology, Paleontology, and Historical Sites**
☐ **Noxious Weeds**
☐ **Special Requirements**
VRM
☐ **Construction**
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
☐ **Road Section Diagram**
☐ **Production (Post Drilling)**
Well Structures & Facilities
☐ **Interim Reclamation**
☐ **Final Abandonment & Reclamation**

Approval Date: 11/15/2019

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

VRM IV:

- Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2013).

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

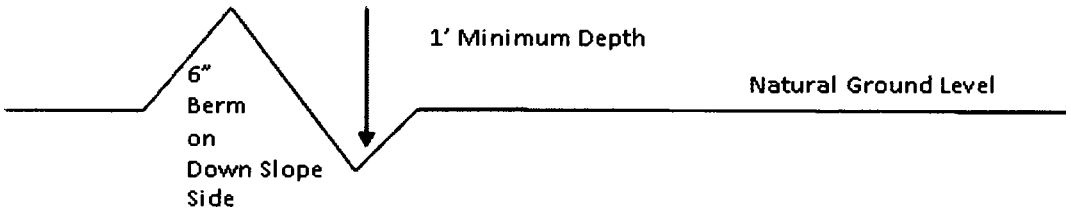
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

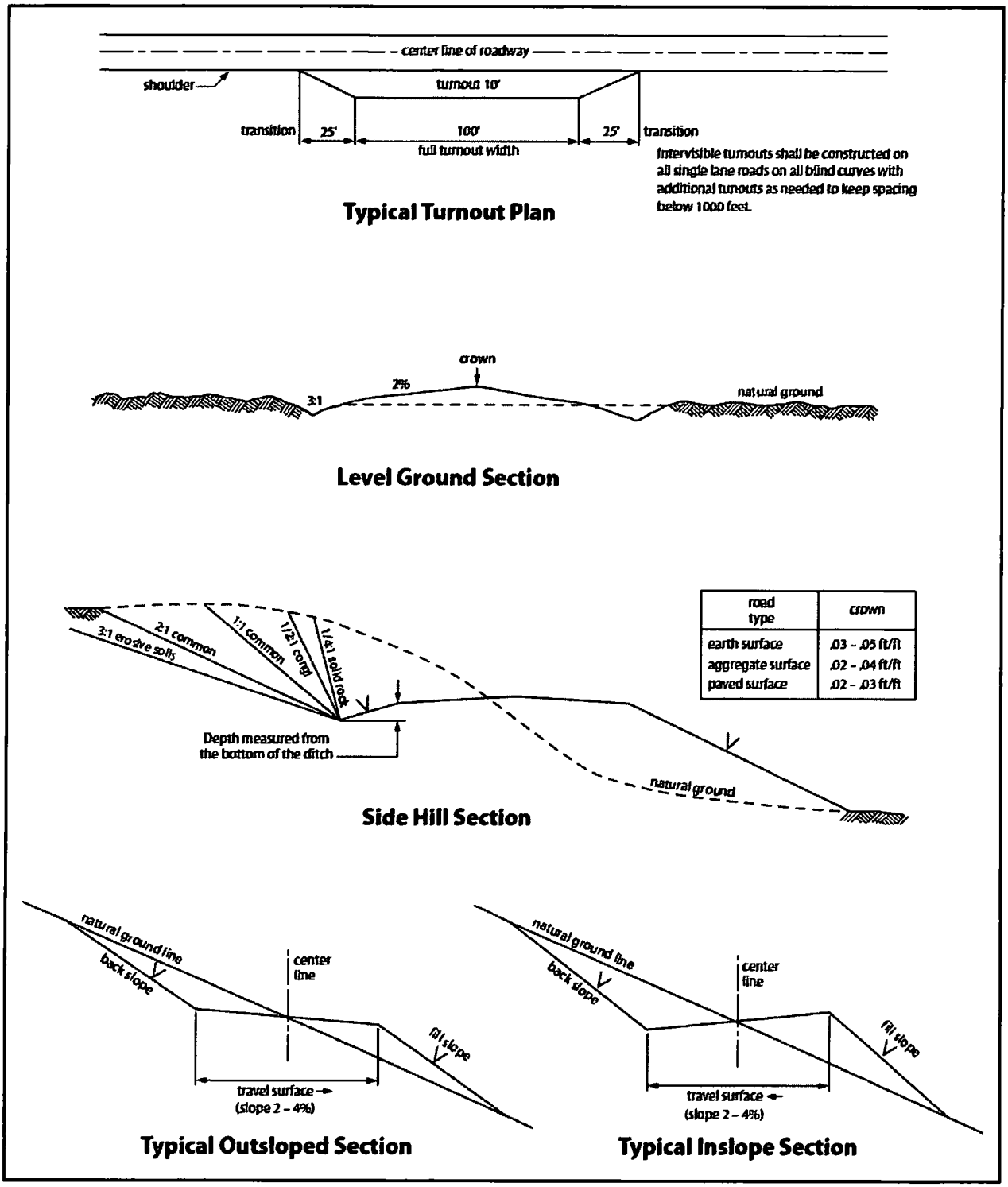


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory

revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

"EXHIBIT A-1"
R/W BLM SERIAL #: NMLC0061374A
Project name: Bell Lake Unit South 215H

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Approval Date: 11/15/2019

AFMSS

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

Operator Certification Data Report

11/18/2019

Operator Certification

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

NAME: Melanie Wilson **Signed on:** 01/11/2019

Title: Regulatory Analyst

Street Address:

City: **State:** **Zip:**

Phone: (918)527-5260

Email address: erich@kfoc.net

Field Representative

Representative Name: Eric Hansen

Street Address: P.O. Box 21468

City: Tulsa **State:** OK **Zip:** 74121-1468

Phone: (918)527-5260

Email address:

AFMSS

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

Application Data Report

11/18/2019

APD ID: 10400037074 **Submission Date:** 01/11/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - General

APD ID: 10400037074 **Tie to previous NOS?** N **Submission Date:** 01/11/2019

BLM Office: CARLSBAD **User:** Melanie Wilson **Title:** Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMLC0061374A **Lease Acres:** 440

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? YES **Federal or Indian agreement:** FEDERAL

Agreement number: NMNM068292X

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** KAISER FRANCIS OIL COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: KAISER FRANCIS OIL COMPANY

Operator Address: 6733 S. Yale Ave.

Zip: 74121

Operator PO Box: PO Box 21468

Operator City: Tulsa **State:** OK

Operator Phone: (918)491-0000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BELL LAKE **Pool Name:** BONE SPRING, SOUTH

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

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

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** SOUTH BELL LAKE UNIT **Number:** 12

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 614 FT **Distance to lease line:** 0 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: BLUS_215H_C102_20181208121641.pdf

BLUS_215H_Pymt_Receipt_20190111074125.pdf

Well work start Date: 04/01/2019 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 17110785 **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce
SHL Leg #1	2239	FNL	1744	FWL	24S	34E	5	SENW	32.247682	-103.49491	LEA	NEW MEXI	NEW MEXI	F	NMLC0061374	3600	0	0	
KOP Leg #1	2285	FNL	2259	FWL	24S	34E	5	SENW	32.247759	-103.5076453	LEA	NEW MEXI	NEW MEXI	F	NMLC0061374	-6785	10401	10385	

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

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
PPP Leg #1-1	1320	FNL	2190	FWL	24S	34E	8	SWNE	32.2357104	-103.5077838	LEA	NEW MEXI	NEW MEXI	F	NMNM 100594	-7262	15100	10862	
PPP Leg #1-2	2640	FSL	2156	FWL	24S	34E	8	NESW	32.2320884	-103.493549	LEA	NEW MEXI	NEW MEXI	F	NMLC0 069109	-7262	16400	10862	
PPP Leg #1-3	2600	FSL	2250	FWL	24S	34E	5	NESW	32.2464855	-103.493269	LEA	NEW MEXI	NEW MEXI	F	NMLC0 061374	-7262	11200	10862	
EXIT Leg #1	330	FSL	2110	FWL	24S	34E	8	SESW	32.2257355	-103.493672	LEA	NEW MEXI	NEW MEXI	F	NMLC0 069109	-7262	18701	10862	
BHL Leg #1	330	FSL	2110	FWL	24S	34E	8	SESW	32.2257355	-103.493672	LEA	NEW MEXI	NEW MEXI	F	NMLC0 069109	-7262	18701	10862	

APD ID: 10400037074 **Submission Date:** 01/11/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	---	3600	0	0		NONE	N
2	RUSTLER	2208	1400	1400		NONE	N
3	SALADO	1808	1800	1800		NONE	N
4	TOP SALT	1483	2125	2125		NONE	N
5	BASE OF SALT	-1492	5100	5100		NONE	N
6	LAMAR	-1667	5275	5275		NATURAL GAS,OIL	N
7	BELL CANYON	-1742	5350	5350		NATURAL GAS,OIL	N
8	CHERRY CANYON	-2617	6225	6225		NATURAL GAS,OIL	N
9	BRUSHY CANYON	-4092	7700	7700		NATURAL GAS,OIL	N
10	BONE SPRING	-5192	8800	8800		NATURAL GAS,OIL	N
11	AVALON SAND	-5365	8973	8973		NATURAL GAS,OIL	N
12	BONE SPRING 1ST	-6292	9900	9900		NATURAL GAS,OIL	N
13	BONE SPRING 2ND	-6877	10485	10485		NATURAL GAS,OIL	Y
14	BONE SPRING LIME	-7352	10960	10960		NATURAL GAS,OIL	N
15	BONE SPRING 3RD	-7662	11270	11270		NATURAL GAS,OIL	N
16	WOLFCAMP	-7767	11375	11375		NATURAL GAS,OIL	N

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Pressure Rating (PSI): 5M **Rating Depth:** 18000

Equipment: Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Requesting Variance? YES

Variance request: Flex Hose Variance

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

Choke Diagram Attachment:

BLUS_215H_Choke_Manifold_20181208122039.pdf

BOP Diagram Attachment:

BLUS_215H_Cactus_10K_BOP_5K_20181208122056.pdf

BLUS_215H_Flex_Hose_Data_20190527152628.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	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1350	0	1350			1350	J-55	54.5	ST&C	1.8	4.3	DRY	12.4	DRY	11.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5200	0	5200			5200	HCP-110	40	LT&C	1.8	3.3	DRY	6.1	DRY	6.1
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18701	0	10861			18701	P-110	20	OTHER - GBCD	2.2	2.5	DRY	3.1	DRY	2.9

Casing Attachments

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_215H_Casing_Assumptions_20181208122425.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_215H_Casing_Assumptions_20181208122434.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_215H_5.5_CSG_SPECS_20181208122258.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

String Type	Lead/Tail	Stage Tool	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	730	1.75	13.5	1275	75	Halcem	4% Bentonite
INTERMEDIATE	Lead		0	5200	1000	2.09	12.5	2089	75	Econocem	KolSeal
INTERMEDIATE	Tail		0	5200	380	1.33	14.8	506	75	Halcem	none
PRODUCTION	Lead		4000	18701	228	3.49	10.5	795	10	Class H	KolSeal
PRODUCTION	Tail		4000	18701	2675	1.22	14.5	3273	10	Class H	none

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

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

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
5200	18701	OIL-BASED MUD	8.7	8.9							
1350	5200	OIL-BASED MUD	8.7	8.9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

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
0	1350	OTHER : Fresh Water	8.4	9							

Section 6 - Test, Logging, Coring

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

None planned

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

GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5045 **Anticipated Surface Pressure:** 2655.36

Anticipated Bottom Hole Temperature(F): 165

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_210H_H2S_Contingency_Plan_20181207100543.pdf

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BLUS_215H_Directional_Plan_20181208122920.pdf

Other proposed operations facets description:

Gas Capture Plan attached

Other proposed operations facets attachment:

BLUS_215H_GCP_20181208123027.pdf

Other Variance attachment:

BLUS 215H Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)	Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss	Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength	Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor	Joint Tensile Safety Factor
Conductor	120'	20"				New		120														
Surface	1350'	13-3/8"	54.5	J-55	BTC	New	17-1/2"	1350	FW	8.4 - 9.0	32 - 34	NC	9	632	1130	2730	853000	912330	1.8	4.3	11.6	12.4
Intermediate	5200'	9-5/8"	40	HCP-110	LTC	New	12-1/4"	5200	OBM	8.7 - 8.9	28-29	NC	8.9	2407	4230	7900	1260000	1266000	1.8	3.3	6.1	6.1
Production	18720'	5-1/2"	20	P110	GBCD	New	8-3/4"	10862	OBM	8.7 - 8.9	28-29	NC	8.9	5027	11100	12640	629996	673444	2.2	2.5	2.9	3.1

Company: Kaiser-Francis
Site: Bell Lake Unit South 215H
Well: Bell Lake Unit South 215H
Project: Lea County, New Mexico (NAD 83)
Rig: Cactus 171

MS Directional

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.39°

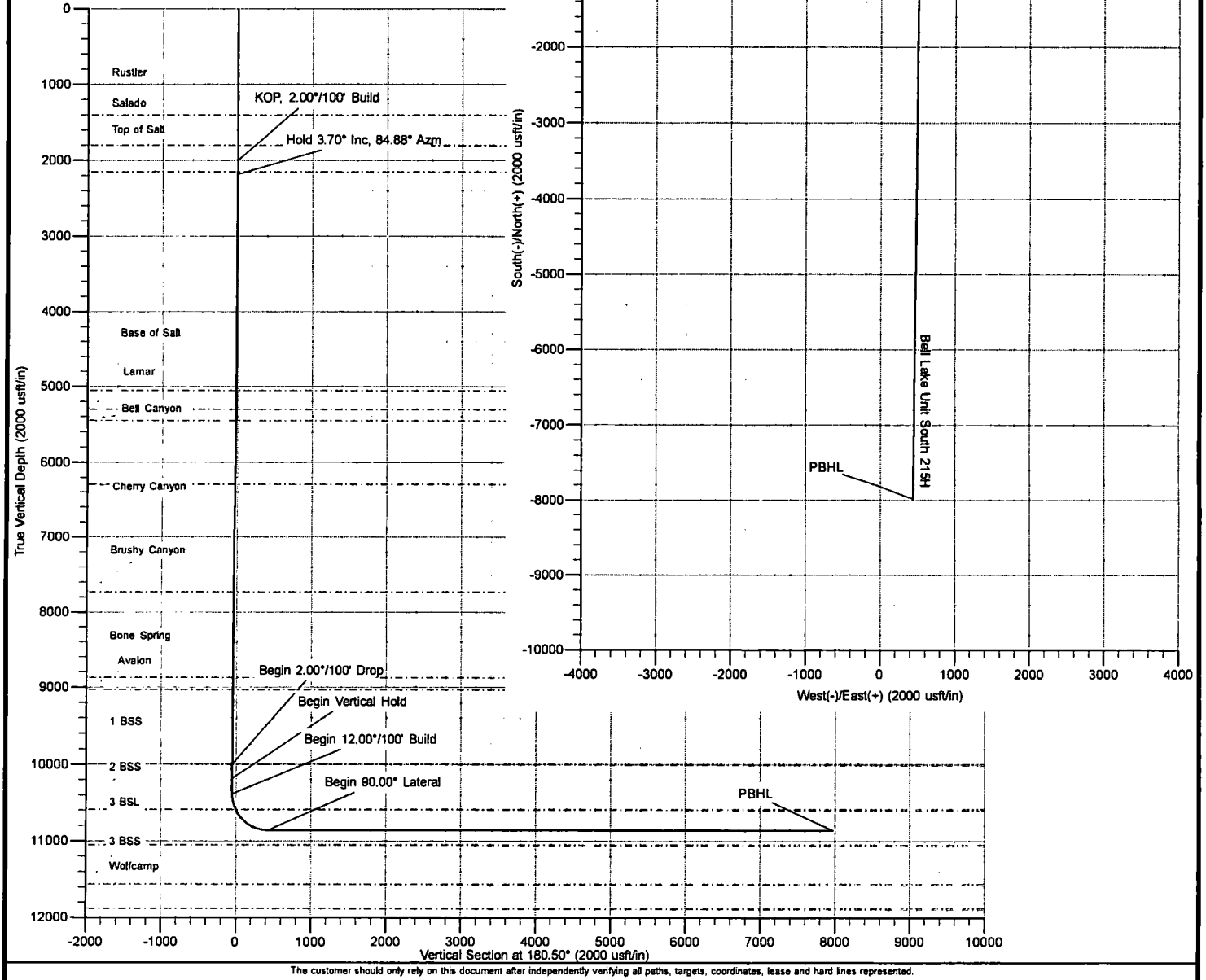
Magnetic Field
Strength: 47849.8nT
Dip Angle: 60.03°
Date: 11/20/2018
Model: BGGM2018

US State Plane 1983
New Mexico Eastern Zone

Created By: JA
Date: 16:20, October 19 2018
Plan: Design #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	KOP, 2.00°/100' Build
2184.86	3.70	84.88	2184.73	0.53	5.94	-0.58	5.96	Hold 3.70° Inc, 84.88° Azm
10016.24	3.70	84.88	9999.81	45.61	508.91	-50.05	510.95	Begin 2.00°/100' Drop
10201.10	0.00	0.00	10184.54	46.15	514.85	-50.64	516.91	Begin Vertical Hold
10401.09	0.00	0.00	10384.54	46.15	514.85	-50.64	516.91	Begin 12.00°/100' Build
11151.09	90.00	180.50	10862.00	-431.30	510.70	426.83	994.38	Begin 90.00° Lateral
18701.38	90.00	180.50	10862.00	-7981.30	445.10	7977.11	8544.66	PBHL



Kaiser-Francis Oil Company

Kaiser-Francis

Lea County, New Mexico (NAD 83)
Bell Lake Unit South 215H
Bell Lake Unit South 215H

Wellbore #1

Plan: Design #1

Standard Planning Report

19 October, 2018

MS Directional

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, New Mexico (NAD 83)		
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 215H				
Site Position:		**Northing:**	454,852.00 usft	**Latitude:**	32° 14' 51.654 N
From:	Map	**Easting:**	800,541.60 usft	**Longitude:**	103° 29' 41.677 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well	Bell Lake Unit South 215H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	454,852.00 usft	**Latitude:**	32° 14' 51.654 N
	+E/-W	0.00 usft	**Easting:**	800,541.60 usft	**Longitude:**	103° 29' 41.677 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,600.40 usft
Grid Convergence:		0.447 °				

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2018	11/20/2018	6.835	60.034	47,849.84

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	180.50	

Plan Survey Tool Program **Date** 10/19/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,701.38	Design #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,184.86	3.70	84.88	2,184.73	0.53	5.94	2.00	2.00	0.00	84.878	
10,016.24	3.70	84.88	9,999.81	45.61	508.91	0.00	0.00	0.00	0.000	
10,201.10	0.00	0.00	10,184.54	46.15	514.85	2.00	-2.00	0.00	180.000	VP BLUS 215H
10,401.09	0.00	0.00	10,384.54	46.15	514.85	0.00	0.00	0.00	0.000	
11,151.09	90.00	180.50	10,862.00	-431.30	510.70	12.00	12.00	0.00	180.498	
18,701.38	90.00	180.50	10,862.00	-7,981.30	445.10	0.00	0.00	0.00	0.000	PBHL BLUS 215H

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 2.00°/100' Build									
2,100.00	2.00	84.88	2,099.98	0.16	1.74	-0.17	2.00	2.00	0.00
2,150.07	3.00	84.88	2,150.00	0.35	3.91	-0.38	2.00	2.00	0.00
Top of Salt									
2,184.86	3.70	84.88	2,184.73	0.53	5.94	-0.58	2.00	2.00	0.00
Hold 3.70° Inc, 84.88° Azm									
2,200.00	3.70	84.88	2,199.84	0.62	6.91	-0.68	0.00	0.00	0.00
2,300.00	3.70	84.88	2,299.63	1.20	13.33	-1.31	0.00	0.00	0.00
2,400.00	3.70	84.88	2,399.42	1.77	19.76	-1.94	0.00	0.00	0.00
2,500.00	3.70	84.88	2,499.22	2.35	26.18	-2.57	0.00	0.00	0.00
2,600.00	3.70	84.88	2,599.01	2.92	32.60	-3.21	0.00	0.00	0.00
2,700.00	3.70	84.88	2,698.80	3.50	39.02	-3.84	0.00	0.00	0.00
2,800.00	3.70	84.88	2,798.59	4.07	45.45	-4.47	0.00	0.00	0.00
2,900.00	3.70	84.88	2,898.38	4.65	51.87	-5.10	0.00	0.00	0.00
3,000.00	3.70	84.88	2,998.18	5.22	58.29	-5.73	0.00	0.00	0.00
3,100.00	3.70	84.88	3,097.97	5.80	64.71	-6.36	0.00	0.00	0.00
3,200.00	3.70	84.88	3,197.76	6.38	71.14	-7.00	0.00	0.00	0.00
3,300.00	3.70	84.88	3,297.55	6.95	77.56	-7.63	0.00	0.00	0.00
3,400.00	3.70	84.88	3,397.34	7.53	83.98	-8.26	0.00	0.00	0.00
3,500.00	3.70	84.88	3,497.13	8.10	90.40	-8.89	0.00	0.00	0.00
3,600.00	3.70	84.88	3,596.93	8.68	96.83	-9.52	0.00	0.00	0.00
3,700.00	3.70	84.88	3,696.72	9.25	103.25	-10.16	0.00	0.00	0.00
3,800.00	3.70	84.88	3,796.51	9.83	109.67	-10.79	0.00	0.00	0.00
3,900.00	3.70	84.88	3,896.30	10.41	116.09	-11.42	0.00	0.00	0.00
4,000.00	3.70	84.88	3,996.09	10.98	122.52	-12.05	0.00	0.00	0.00
4,100.00	3.70	84.88	4,095.89	11.56	128.94	-12.68	0.00	0.00	0.00
4,200.00	3.70	84.88	4,195.68	12.13	135.36	-13.31	0.00	0.00	0.00
4,300.00	3.70	84.88	4,295.47	12.71	141.78	-13.95	0.00	0.00	0.00
4,400.00	3.70	84.88	4,395.26	13.28	148.21	-14.58	0.00	0.00	0.00
4,500.00	3.70	84.88	4,495.05	13.86	154.63	-15.21	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	3.70	84.88	4,594.85	14.44	161.05	-15.84	0.00	0.00	0.00
4,700.00	3.70	84.88	4,694.64	15.01	167.47	-16.47	0.00	0.00	0.00
4,800.00	3.70	84.88	4,794.43	15.59	173.90	-17.10	0.00	0.00	0.00
4,900.00	3.70	84.88	4,894.22	16.16	180.32	-17.74	0.00	0.00	0.00
5,000.00	3.70	84.88	4,994.01	16.74	186.74	-18.37	0.00	0.00	0.00
5,056.10	3.70	84.88	5,050.00	17.06	190.34	-18.72	0.00	0.00	0.00
Base of Salt									
5,100.00	3.70	84.88	5,093.80	17.31	193.16	-19.00	0.00	0.00	0.00
5,200.00	3.70	84.88	5,193.60	17.89	199.59	-19.63	0.00	0.00	0.00
5,300.00	3.70	84.88	5,293.39	18.46	206.01	-20.26	0.00	0.00	0.00
5,306.63	3.70	84.88	5,300.00	18.50	206.43	-20.30	0.00	0.00	0.00
Lamar									
5,400.00	3.70	84.88	5,393.18	19.04	212.43	-20.89	0.00	0.00	0.00
5,456.94	3.70	84.88	5,450.00	19.37	216.09	-21.25	0.00	0.00	0.00
Bell Canyon									
5,500.00	3.70	84.88	5,492.97	19.62	218.85	-21.53	0.00	0.00	0.00
5,600.00	3.70	84.88	5,592.76	20.19	225.28	-22.16	0.00	0.00	0.00
5,700.00	3.70	84.88	5,692.56	20.77	231.70	-22.79	0.00	0.00	0.00
5,800.00	3.70	84.88	5,792.35	21.34	238.12	-23.42	0.00	0.00	0.00
5,900.00	3.70	84.88	5,892.14	21.92	244.54	-24.05	0.00	0.00	0.00
6,000.00	3.70	84.88	5,991.93	22.49	250.97	-24.68	0.00	0.00	0.00
6,100.00	3.70	84.88	6,091.72	23.07	257.39	-25.32	0.00	0.00	0.00
6,200.00	3.70	84.88	6,191.52	23.65	263.81	-25.95	0.00	0.00	0.00
6,300.00	3.70	84.88	6,291.31	24.22	270.23	-26.58	0.00	0.00	0.00
6,308.71	3.70	84.88	6,300.00	24.27	270.79	-26.63	0.00	0.00	0.00
Cherry Canyon									
6,400.00	3.70	84.88	6,391.10	24.80	276.66	-27.21	0.00	0.00	0.00
6,500.00	3.70	84.88	6,490.89	25.37	283.08	-27.84	0.00	0.00	0.00
6,600.00	3.70	84.88	6,590.68	25.95	289.50	-28.47	0.00	0.00	0.00
6,700.00	3.70	84.88	6,690.48	26.52	295.92	-29.11	0.00	0.00	0.00
6,800.00	3.70	84.88	6,790.27	27.10	302.35	-29.74	0.00	0.00	0.00
6,900.00	3.70	84.88	6,890.06	27.68	308.77	-30.37	0.00	0.00	0.00
7,000.00	3.70	84.88	6,989.85	28.25	315.19	-31.00	0.00	0.00	0.00
7,100.00	3.70	84.88	7,089.64	28.83	321.61	-31.63	0.00	0.00	0.00
7,200.00	3.70	84.88	7,189.43	29.40	328.04	-32.26	0.00	0.00	0.00
7,300.00	3.70	84.88	7,289.23	29.98	334.46	-32.90	0.00	0.00	0.00
7,400.00	3.70	84.88	7,389.02	30.55	340.88	-33.53	0.00	0.00	0.00
7,500.00	3.70	84.88	7,488.81	31.13	347.30	-34.16	0.00	0.00	0.00
7,600.00	3.70	84.88	7,588.60	31.71	353.73	-34.79	0.00	0.00	0.00
7,700.00	3.70	84.88	7,688.39	32.28	360.15	-35.42	0.00	0.00	0.00
7,741.69	3.70	84.88	7,730.00	32.52	362.83	-35.69	0.00	0.00	0.00
Brushy Canyon									
7,800.00	3.70	84.88	7,788.19	32.86	366.57	-36.05	0.00	0.00	0.00
7,900.00	3.70	84.88	7,887.98	33.43	372.99	-36.69	0.00	0.00	0.00
8,000.00	3.70	84.88	7,987.77	34.01	379.42	-37.32	0.00	0.00	0.00
8,100.00	3.70	84.88	8,087.56	34.58	385.84	-37.95	0.00	0.00	0.00
8,200.00	3.70	84.88	8,187.35	35.16	392.26	-38.58	0.00	0.00	0.00
8,300.00	3.70	84.88	8,287.15	35.73	398.68	-39.21	0.00	0.00	0.00
8,400.00	3.70	84.88	8,386.94	36.31	405.11	-39.84	0.00	0.00	0.00
8,500.00	3.70	84.88	8,486.73	36.89	411.53	-40.48	0.00	0.00	0.00
8,600.00	3.70	84.88	8,586.52	37.46	417.95	-41.11	0.00	0.00	0.00
8,700.00	3.70	84.88	8,686.31	38.04	424.37	-41.74	0.00	0.00	0.00
8,800.00	3.70	84.88	8,786.10	38.61	430.80	-42.37	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,884.07	3.70	84.88	8,870.00	39.10	436.20	-42.90	0.00	0.00	0.00
Bone Spring									
8,900.00	3.70	84.88	8,885.90	39.19	437.22	-43.00	0.00	0.00	0.00
9,000.00	3.70	84.88	8,985.69	39.76	443.64	-43.63	0.00	0.00	0.00
9,044.40	3.70	84.88	9,030.00	40.02	446.49	-43.91	0.00	0.00	0.00
Avalon									
9,100.00	3.70	84.88	9,085.48	40.34	450.06	-44.27	0.00	0.00	0.00
9,200.00	3.70	84.88	9,185.27	40.92	456.49	-44.90	0.00	0.00	0.00
9,300.00	3.70	84.88	9,285.06	41.49	462.91	-45.53	0.00	0.00	0.00
9,400.00	3.70	84.88	9,384.86	42.07	469.33	-46.16	0.00	0.00	0.00
9,500.00	3.70	84.88	9,484.65	42.64	475.75	-46.79	0.00	0.00	0.00
9,600.00	3.70	84.88	9,584.44	43.22	482.18	-47.42	0.00	0.00	0.00
9,700.00	3.70	84.88	9,684.23	43.79	488.60	-48.06	0.00	0.00	0.00
9,800.00	3.70	84.88	9,784.02	44.37	495.02	-48.69	0.00	0.00	0.00
9,900.00	3.70	84.88	9,883.82	44.95	501.44	-49.32	0.00	0.00	0.00
10,000.00	3.70	84.88	9,983.61	45.52	507.87	-49.95	0.00	0.00	0.00
10,016.24	3.70	84.88	9,999.81	45.61	508.91	-50.05	0.00	0.00	0.00
Begin 2.00°/100' Drop									
10,016.43	3.70	84.88	10,000.00	45.62	508.92	-50.06	0.00	0.00	0.00
1 BSS									
10,100.00	2.02	84.88	10,083.47	45.99	513.07	-50.46	2.00	-2.00	0.00
10,201.10	0.00	0.00	10,184.54	46.15	514.85	-50.64	2.00	-2.00	0.00
Begin Vertical Hold - VP BLUS 215H									
10,300.00	0.00	0.00	10,283.45	46.15	514.85	-50.64	0.00	0.00	0.00
10,401.09	0.00	0.00	10,384.54	46.15	514.85	-50.64	0.00	0.00	0.00
Begin 12.00°/100' Build									
10,425.00	2.87	180.50	10,408.44	45.55	514.84	-50.04	12.00	12.00	0.00
10,450.00	5.87	180.50	10,433.36	43.64	514.83	-48.14	12.00	12.00	0.00
10,475.00	8.87	180.50	10,458.15	40.44	514.80	-44.93	12.00	12.00	0.00
10,500.00	11.87	180.50	10,482.74	35.94	514.76	-40.43	12.00	12.00	0.00
10,525.00	14.87	180.50	10,507.06	30.16	514.71	-34.65	12.00	12.00	0.00
10,550.00	17.87	180.50	10,531.04	23.11	514.65	-27.60	12.00	12.00	0.00
10,575.00	20.87	180.50	10,554.63	14.82	514.58	-19.31	12.00	12.00	0.00
10,600.00	23.87	180.50	10,577.74	5.31	514.49	-9.80	12.00	12.00	0.00
10,613.49	25.49	180.50	10,590.00	-0.32	514.44	-4.17	12.00	12.00	0.00
2 BSS									
10,625.00	26.87	180.50	10,600.33	-5.40	514.40	0.91	12.00	12.00	0.00
10,650.00	29.87	180.50	10,622.32	-17.27	514.30	12.79	12.00	12.00	0.00
10,675.00	32.87	180.50	10,643.67	-30.29	514.18	25.80	12.00	12.00	0.00
10,700.00	35.87	180.50	10,664.30	-44.40	514.06	39.91	12.00	12.00	0.00
10,725.00	38.87	180.50	10,684.17	-59.57	513.93	55.08	12.00	12.00	0.00
10,750.00	41.87	180.50	10,703.21	-75.76	513.79	71.27	12.00	12.00	0.00
10,775.00	44.87	180.50	10,721.38	-92.92	513.64	88.44	12.00	12.00	0.00
10,800.00	47.87	180.50	10,738.63	-111.02	513.48	106.53	12.00	12.00	0.00
10,825.00	50.87	180.50	10,754.91	-129.99	513.32	125.50	12.00	12.00	0.00
10,850.00	53.87	180.50	10,770.17	-149.78	513.15	145.30	12.00	12.00	0.00
10,875.00	56.87	180.50	10,784.38	-170.35	512.97	165.87	12.00	12.00	0.00
10,900.00	59.87	180.50	10,797.49	-191.63	512.78	187.15	12.00	12.00	0.00
10,925.00	62.87	180.50	10,809.46	-213.57	512.59	209.09	12.00	12.00	0.00
10,950.00	65.87	180.50	10,820.28	-236.11	512.40	231.63	12.00	12.00	0.00
10,975.00	68.87	180.50	10,829.90	-259.18	512.20	254.70	12.00	12.00	0.00
11,000.00	71.87	180.50	10,838.29	-282.72	511.99	278.25	12.00	12.00	0.00
11,025.00	74.87	180.50	10,845.45	-306.68	511.78	302.20	12.00	12.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,050.00	77.87	180.50	10,851.34	-330.97	511.57	326.49	12.00	12.00	0.00
11,075.00	80.87	180.50	10,855.95	-355.53	511.36	351.06	12.00	12.00	0.00
11,100.00	83.87	180.50	10,859.27	-380.31	511.14	375.83	12.00	12.00	0.00
11,125.00	86.87	180.50	10,861.29	-405.22	510.93	400.75	12.00	12.00	0.00
11,151.09	90.00	180.50	10,862.00	-431.30	510.70	426.83	12.00	12.00	0.00
Begin 90.00° Lateral - FTP BLUS 215H									
11,200.00	90.00	180.50	10,862.00	-480.21	510.28	475.74	0.00	0.00	0.00
11,300.00	90.00	180.50	10,862.00	-580.20	509.41	575.74	0.00	0.00	0.00
11,400.00	90.00	180.50	10,862.00	-680.20	508.54	675.74	0.00	0.00	0.00
11,500.00	90.00	180.50	10,862.00	-780.20	507.67	775.74	0.00	0.00	0.00
11,600.00	90.00	180.50	10,862.00	-880.19	506.80	875.74	0.00	0.00	0.00
11,700.00	90.00	180.50	10,862.00	-980.19	505.93	975.74	0.00	0.00	0.00
11,800.00	90.00	180.50	10,862.00	-1,080.19	505.06	1,075.74	0.00	0.00	0.00
11,900.00	90.00	180.50	10,862.00	-1,180.18	504.19	1,175.74	0.00	0.00	0.00
12,000.00	90.00	180.50	10,862.00	-1,280.18	503.32	1,275.74	0.00	0.00	0.00
12,100.00	90.00	180.50	10,862.00	-1,380.17	502.46	1,375.74	0.00	0.00	0.00
12,200.00	90.00	180.50	10,862.00	-1,480.17	501.59	1,475.74	0.00	0.00	0.00
12,300.00	90.00	180.50	10,862.00	-1,580.17	500.72	1,575.74	0.00	0.00	0.00
12,400.00	90.00	180.50	10,862.00	-1,680.16	499.85	1,675.74	0.00	0.00	0.00
12,500.00	90.00	180.50	10,862.00	-1,780.16	498.98	1,775.74	0.00	0.00	0.00
12,600.00	90.00	180.50	10,862.00	-1,880.16	498.11	1,875.74	0.00	0.00	0.00
12,700.00	90.00	180.50	10,862.00	-1,980.15	497.24	1,975.74	0.00	0.00	0.00
12,800.00	90.00	180.50	10,862.00	-2,080.15	496.37	2,075.74	0.00	0.00	0.00
12,900.00	90.00	180.50	10,862.00	-2,180.14	495.50	2,175.74	0.00	0.00	0.00
13,000.00	90.00	180.50	10,862.00	-2,280.14	494.64	2,275.74	0.00	0.00	0.00
13,100.00	90.00	180.50	10,862.00	-2,380.14	493.77	2,375.74	0.00	0.00	0.00
13,200.00	90.00	180.50	10,862.00	-2,480.13	492.90	2,475.74	0.00	0.00	0.00
13,300.00	90.00	180.50	10,862.00	-2,580.13	492.03	2,575.74	0.00	0.00	0.00
13,400.00	90.00	180.50	10,862.00	-2,680.12	491.16	2,675.74	0.00	0.00	0.00
13,500.00	90.00	180.50	10,862.00	-2,780.12	490.29	2,775.74	0.00	0.00	0.00
13,600.00	90.00	180.50	10,862.00	-2,880.12	489.42	2,875.74	0.00	0.00	0.00
13,700.00	90.00	180.50	10,862.00	-2,980.11	488.55	2,975.74	0.00	0.00	0.00
13,800.00	90.00	180.50	10,862.00	-3,080.11	487.69	3,075.74	0.00	0.00	0.00
13,900.00	90.00	180.50	10,862.00	-3,180.11	486.82	3,175.74	0.00	0.00	0.00
14,000.00	90.00	180.50	10,862.00	-3,280.10	485.95	3,275.74	0.00	0.00	0.00
14,100.00	90.00	180.50	10,862.00	-3,380.10	485.08	3,375.74	0.00	0.00	0.00
14,200.00	90.00	180.50	10,862.00	-3,480.09	484.21	3,475.74	0.00	0.00	0.00
14,300.00	90.00	180.50	10,862.00	-3,580.09	483.34	3,575.74	0.00	0.00	0.00
14,400.00	90.00	180.50	10,862.00	-3,680.09	482.47	3,675.74	0.00	0.00	0.00
14,500.00	90.00	180.50	10,862.00	-3,780.08	481.60	3,775.74	0.00	0.00	0.00
14,600.00	90.00	180.50	10,862.00	-3,880.08	480.73	3,875.74	0.00	0.00	0.00
14,700.00	90.00	180.50	10,862.00	-3,980.08	479.87	3,975.74	0.00	0.00	0.00
14,800.00	90.00	180.50	10,862.00	-4,080.07	479.00	4,075.74	0.00	0.00	0.00
14,900.00	90.00	180.50	10,862.00	-4,180.07	478.13	4,175.74	0.00	0.00	0.00
15,000.00	90.00	180.50	10,862.00	-4,280.06	477.26	4,275.74	0.00	0.00	0.00
15,100.00	90.00	180.50	10,862.00	-4,380.06	476.39	4,375.74	0.00	0.00	0.00
15,200.00	90.00	180.50	10,862.00	-4,480.06	475.52	4,475.74	0.00	0.00	0.00
15,300.00	90.00	180.50	10,862.00	-4,580.05	474.65	4,575.74	0.00	0.00	0.00
15,400.00	90.00	180.50	10,862.00	-4,680.05	473.78	4,675.74	0.00	0.00	0.00
15,500.00	90.00	180.50	10,862.00	-4,780.05	472.91	4,775.74	0.00	0.00	0.00
15,600.00	90.00	180.50	10,862.00	-4,880.04	472.05	4,875.74	0.00	0.00	0.00
15,700.00	90.00	180.50	10,862.00	-4,980.04	471.18	4,975.74	0.00	0.00	0.00
15,800.00	90.00	180.50	10,862.00	-5,080.03	470.31	5,075.74	0.00	0.00	0.00
15,900.00	90.00	180.50	10,862.00	-5,180.03	469.44	5,175.74	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,000.00	90.00	180.50	10,862.00	-5,280.03	468.57	5,275.74	0.00	0.00	0.00
16,100.00	90.00	180.50	10,862.00	-5,380.02	467.70	5,375.74	0.00	0.00	0.00
16,200.00	90.00	180.50	10,862.00	-5,480.02	466.83	5,475.74	0.00	0.00	0.00
16,300.00	90.00	180.50	10,862.00	-5,580.02	465.96	5,575.74	0.00	0.00	0.00
16,400.00	90.00	180.50	10,862.00	-5,680.01	465.10	5,675.74	0.00	0.00	0.00
16,500.00	90.00	180.50	10,862.00	-5,780.01	464.23	5,775.74	0.00	0.00	0.00
16,600.00	90.00	180.50	10,862.00	-5,880.00	463.36	5,875.74	0.00	0.00	0.00
16,700.00	90.00	180.50	10,862.00	-5,980.00	462.49	5,975.74	0.00	0.00	0.00
16,800.00	90.00	180.50	10,862.00	-6,080.00	461.62	6,075.74	0.00	0.00	0.00
16,900.00	90.00	180.50	10,862.00	-6,179.99	460.75	6,175.74	0.00	0.00	0.00
17,000.00	90.00	180.50	10,862.00	-6,279.99	459.88	6,275.74	0.00	0.00	0.00
17,100.00	90.00	180.50	10,862.00	-6,379.99	459.01	6,375.74	0.00	0.00	0.00
17,200.00	90.00	180.50	10,862.00	-6,479.98	458.14	6,475.74	0.00	0.00	0.00
17,300.00	90.00	180.50	10,862.00	-6,579.98	457.28	6,575.74	0.00	0.00	0.00
17,400.00	90.00	180.50	10,862.00	-6,679.97	456.41	6,675.74	0.00	0.00	0.00
17,500.00	90.00	180.50	10,862.00	-6,779.97	455.54	6,775.74	0.00	0.00	0.00
17,600.00	90.00	180.50	10,862.00	-6,879.97	454.67	6,875.74	0.00	0.00	0.00
17,700.00	90.00	180.50	10,862.00	-6,979.96	453.80	6,975.74	0.00	0.00	0.00
17,800.00	90.00	180.50	10,862.00	-7,079.96	452.93	7,075.74	0.00	0.00	0.00
17,900.00	90.00	180.50	10,862.00	-7,179.96	452.06	7,175.74	0.00	0.00	0.00
18,000.00	90.00	180.50	10,862.00	-7,279.95	451.19	7,275.74	0.00	0.00	0.00
18,100.00	90.00	180.50	10,862.00	-7,379.95	450.33	7,375.74	0.00	0.00	0.00
18,200.00	90.00	180.50	10,862.00	-7,479.94	449.46	7,475.74	0.00	0.00	0.00
18,300.00	90.00	180.50	10,862.00	-7,579.94	448.59	7,575.74	0.00	0.00	0.00
18,400.00	90.00	180.50	10,862.00	-7,679.94	447.72	7,675.74	0.00	0.00	0.00
18,500.00	90.00	180.50	10,862.00	-7,779.93	446.85	7,775.74	0.00	0.00	0.00
18,600.00	90.00	180.50	10,862.00	-7,879.93	445.98	7,875.74	0.00	0.00	0.00
18,701.38	90.00	180.50	10,862.00	-7,981.30	445.10	7,977.11	0.00	0.00	0.00
PBHL - PBHL BLUS 215H									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP BLUS 215H - plan hits target center - Point	0.00	0.00	10,184.54	46.15	514.85	454,898.15	801,056.45	32° 14' 52.071 N	103° 29' 35.678 W
PBHL BLUS 215H - plan hits target center - Point	0.00	0.00	10,862.00	-7,981.30	445.10	446,870.70	800,986.70	32° 13' 32.645 N	103° 29' 37.221 W
FTP BLUS 215H - plan hits target center - Point	0.00	0.00	10,862.00	-431.30	510.70	454,420.70	801,052.30	32° 14' 47.347 N	103° 29' 35.770 W

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 215H
Company:	Kaiser-Francis	**TVD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22 KB + 3600 GL @ 3622.40usft (Cactus 171)
Site:	Bell Lake Unit South 215H	**North Reference:**	Grid
Well:	Bell Lake Unit South 215H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,400.00	1,400.00	Rustler		0.000	180.50
1,800.00	1,800.00	Salado		0.000	180.50
2,150.07	2,150.00	Top of Salt		0.000	180.50
5,056.10	5,050.00	Base of Salt		0.000	180.50
5,306.63	5,300.00	Lamar		0.000	180.50
5,456.94	5,450.00	Bell Canyon		0.000	180.50
6,308.71	6,300.00	Cherry Canyon		0.000	180.50
7,741.69	7,730.00	Brushy Canyon		0.000	180.50
8,884.07	8,870.00	Bone Spring		0.000	180.50
9,044.40	9,030.00	Avalon		0.000	180.50
10,016.43	10,000.00	1 BSS		0.000	180.50
10,613.49	10,590.00	2 BSS		0.000	180.50

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,000.00	2,000.00	0.00	0.00	KOP, 2.00°/100' Build
2,184.86	2,184.73	0.53	5.94	Hold 3.70° Inc, 84.88° Azm
10,016.24	9,999.81	45.61	508.91	Begin 2.00°/100' Drop
10,201.10	10,184.54	46.15	514.85	Begin Vertical Hold
10,401.09	10,384.54	46.15	514.85	Begin 12.00°/100' Build
11,151.09	10,862.00	-431.30	510.70	Begin 90.00° Lateral
18,701.38	10,862.00	-7,981.30	445.10	PBHL

APD ID: 10400037074 **Submission Date:** 01/11/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BLUS_215H_Existing_Roads_20181208123343.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BLUS_215H_1Mile_Map_20181208123904.pdf

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

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

Submit or defer a Proposed Production Facilities plan? DEFER

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

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: FRESH WATER

Water source use type: STIMULATION
OTHER
SURFACE CASING

Describe use type: ROAD/PAD CONSTRUCTION ANI

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER

Describe transportation land ownership:

Water source volume (barrels): 250000

Source volume (acre-feet): 32.223274

Source volume (gal): 10500000

Water source type: OTHER

Describe type: BRINE WATER

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: OTHER **Describe transportation land ownership:**

Water source volume (barrels): 20000 **Source volume (acre-feet):** 2.577862

Source volume (gal): 840000

Water source and transportation map:

BLUS_215H_Wtr_Source_Map_20181208124451.pdf

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

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

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

Construction Materials source location attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Section 7 - Methods for Handling Waste

Waste type: GARBAGE

Waste content description: Miscellaneous trash

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: SEWAGE

Waste content description: Human waste and grey water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings

Amount of waste: 3900 barrels

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Cuttings will be hauled to R360's facility on US 62/180 at Halfway, NM

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

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

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BLUS_215H_Well_Site_Layout_20181208124519.pdf

BLUS_215H_Drilling_Layout_20181208124646.pdf

Comments:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** SOUTH BELL LAKE UNIT

Multiple Well Pad Number: 12

Recontouring attachment:

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff and siltation of the surrounding area. As per request of rancher, a berm will be constructed along the east side of well pad.

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

Well pad proposed disturbance (acres): 5.23

Road proposed disturbance (acres): 0.241047

Powerline proposed disturbance (acres): 0

Pipeline proposed disturbance (acres): 0

Other proposed disturbance (acres): 0

Total proposed disturbance: 5.471047

Well pad interim reclamation (acres): 0

Road interim reclamation (acres): 0

Powerline interim reclamation (acres): 0

Pipeline interim reclamation (acres): 0

Other interim reclamation (acres): 0

Total interim reclamation: 0

Well pad long term disturbance (acres): 5.23

Road long term disturbance (acres): 0

Powerline long term disturbance (acres): 0

Pipeline long term disturbance (acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 5.23

Disturbance Comments: Plan to reclaim 130' on the north side and 80' on the west side of well pad.

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

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

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

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

Existing Vegetation at the well pad attachment:

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

Existing Vegetation Community at the road attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Eric **Last Name:** Hansen

Phone: (432)684-9696 **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

Weed treatment plan attachment:

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

Monitoring plan attachment:

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

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Fee Owner: COG Operating LLC **Fee Owner Address:**

Phone: (432)683-7443 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: Surface Use and Compensation Agreement exists between COG Operating LLC and Kaiser-Francis Oil Company

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

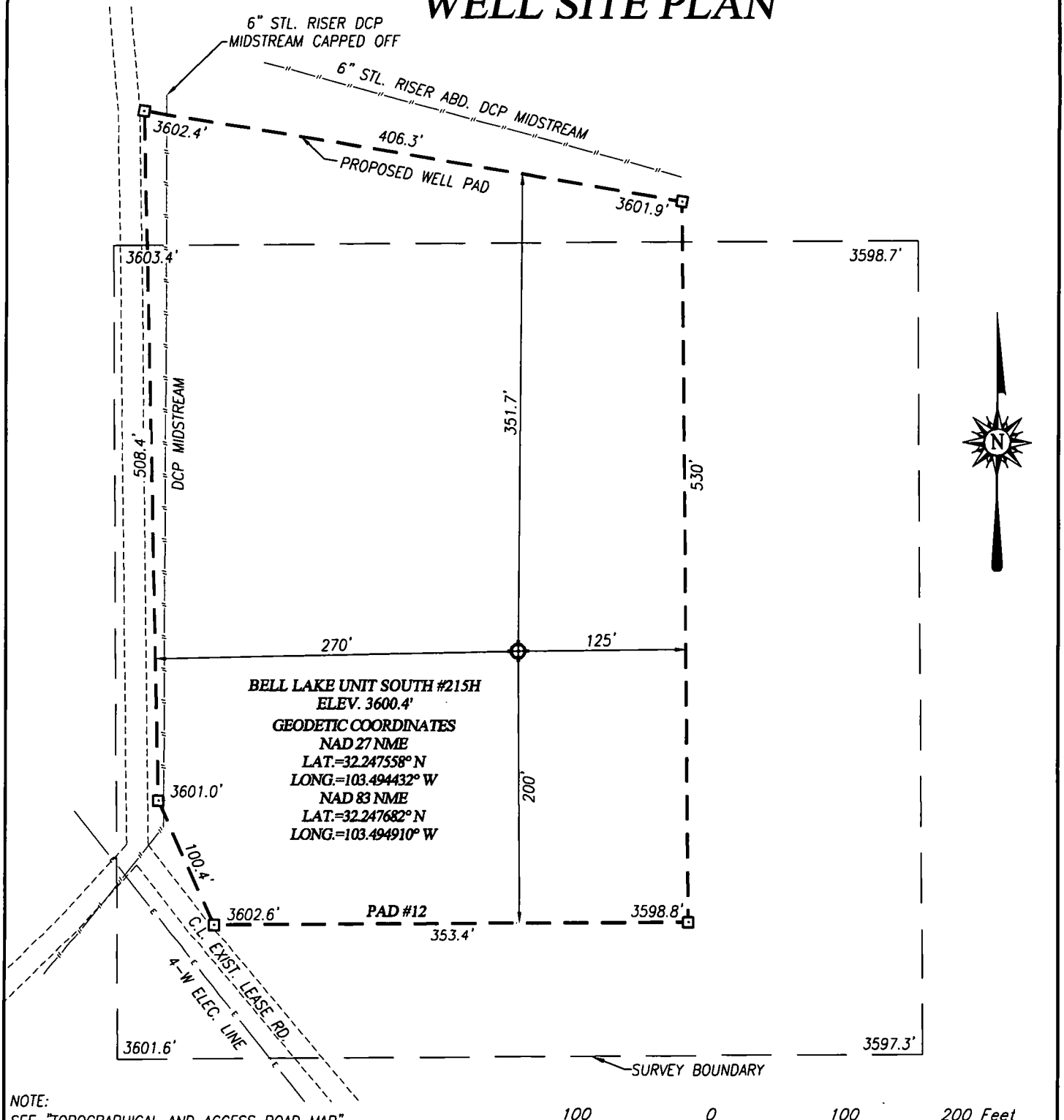
SUPO Additional Information:

Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

WELL SITE PLAN



NOTE:
SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. E21 (DELAWARE BASIN RD.), GO NORTH ON CO. RD. E21 APPROX. 3 MILES TO CO. RD. J-21 (SHELL RD.), TURN RIGHT ON LEASE ROAD AND GO EAST APPROX. 0.8 MILES, TURN RIGHT AND GO SOUTH APPROX. 0.4 MILES. THIS LOCATION IS EAST OF ROAD 275 FEET.

KAISER-FRANCIS OIL COMPANY

BELL LAKE UNIT SOUTH #215H WELL LOCATED 2239 FEET FROM THE NORTH LINE AND 1744 FEET FROM THE WEST LINE OF SECTION 5, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 9/12/17	CAD Date: 10/12/17	Drawn By: ACK
W.O. No.: 17110849	Rev: .	Rel. W.O.:	Sheet 1 of 1

AFMSS

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

PWD Data Report

11/18/2019

APD ID: 10400037074 **Submission Date:** 01/11/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 215H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

11/18/2019

APD ID: 10400037074

Submission Date: 01/11/2019

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH

Well Number: 215H

Well Type: OIL WELL

Well Work Type: Drill

[redacted]

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: WYB000055

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: