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Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
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
211H (316706)

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

9. API Well No.
30-025-46498

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 SENE / 2276 FNL / 277 FEL / LAT 32.2475815 / LONG -103.5014462
At proposed prod. zone SWSE / 330 FSL / 1410 FEL / LAT 32.2257356 / LONG -103.5050543

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

14. Distance in miles and direction from nearest town or post office*
20 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
277 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.
2168 feet

19. Proposed Depth
10862 feet / 18772 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3597 feet

22. Approximate date work will start*
06/01/2019

23. Estimated duration
40 days

## 24. Attachments

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

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

| 25. Signature | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | Stormi Davis / Ph: (918)491-4339 | 02/19/2019 |
| Title: Regulatory Analyst | | |
| Approved by *(Signature)* (Electronic Submission) | Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959 | Date 11/15/2019 |
| Title: Assistant Field Manager Lands & Minerals | Office: CARLSBAD | |

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

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

GCP Rec 12/05/19

KA 12/11/19

APPROVED WITH CONDITIONS

SL

(Continued on page 2)

*(Instructions on page 2)

**Approval Date: 11/15/2019**

## Additional Operator Remarks

### Location of Well

1. SHL: SENE / 2276 FNL / 277 FEL / TWSP: 24S / RANGE: 34E / SECTION: 6 / LAT: 32.2475815 / LONG: -103.5014462 ( TVD: 0 feet, MD: 0 feet )
   PPP: NESE / 2600 FSL / 1310 FEL / TWSP: 24S / RANGE: 34E / SECTION: 6 / LAT: 32.2464869 / LONG: -103.5047823 ( TVD: 10862 feet, MD: 11222 feet )
   PPP: NWNE / 0 FNL / 1332 FEL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.2393413 / LONG: -103.5048789 ( TVD: 10862 feet, MD: 13820 feet )
   PPP: SWNE / 1320 FNL / 1332 FEL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.235711 / LONG: -103.5049248 ( TVD: 10862 feet, MD: 15140 feet )
   PPP: NWSE / 2640 FNL / 1332 FEL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.2320829 / LONG: -103.5049739 ( TVD: 10862 feet, MD: 16460 feet )
   BHL: SWSE / 330 FSL / 1410 FEL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.2257356 / LONG: -103.5050543 ( TVD: 10862 feet, MD: 18772 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 211H** |
| **SURFACE HOLE FOOTAGE:** | **2276' FNL & 227' FEL** |
| **BOTTOM HOLE FOOTAGE** | **330' FSL & 1410' FEL** |
| **LOCATION:** | **Section 6, 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 | [x] 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.

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**

# 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.

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# 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:** Stormi Davis **Signed on:** 02/19/2019

**Title:** Regulatory Analyst

**Street Address:**

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

**Phone:** (918)491-4339

**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:**

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

# Application Data Report

11/18/2019

**APD ID:** 10400039236 **Submission Date:** 02/19/2019

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

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

[redacted]

Show Final Text

## Section 1 - General

**APD ID:** 10400039236 **Tie to previous NOS?** N **Submission Date:** 02/19/2019

**BLM Office:** CARLSBAD **User:** Stormi Davis **Title:** Regulatory Analyst

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

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

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

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

**Agreement number:** NMNM068292X

**Agreement name:**

**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:** 211H **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:** 211H

**Is the proposed well in an area containing other mineral resources?** 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:** 10

**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:** 2168 FT **Distance to lease line:** 277 FT

**Reservoir well spacing assigned acres Measurement:** 240 Acres

**Well plat:** BLUS_211H_C102_20190219100333.pdf

BLUS_211H_Pymt_Rec_20190219124558.pdf

**Well work start Date:** 06/01/2019 **Duration:** 40 DAYS

## Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83 **Vertical Datum:** NAVD88

**Survey number:** 6743 **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 | 2276 | FNL | 277 | FEL | 24S | 34E | 6 | SENE | 32.2475815 | -103.5014462 | LEA | NEW MEXI | NEW MEXI | S | STATE | 3597 | 0 | 0 | |
| KOP Leg #1 | 2205 | FNL | 1303 | FEL | 24S | 34E | 6 | SENE | 32.2477992 | -103.5047651 | LEA | NEW MEXI | NEW MEXI | S | STATE | -6788 | 10472 | 10385 | |

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

| 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 | 2640 | FNL | 1332 | FEL | 24S | 34E | 7 | NWSE | 32.2320829 | -103.5049739 | LEA | NEW MEXI | NEW MEXI | F | FEE | -7265 | 16460 | 10862 | |
| PPP Leg #1-2 | 1320 | FNL | 1332 | FEL | 24S | 34E | 7 | SWNE | 32.235711 | -103.5049248 | LEA | NEW MEXI | NEW MEXI | F | NMNM 100594 | -7265 | 15140 | 10862 | |
| PPP Leg #1-3 | 0 | FNL | 1332 | FEL | 24S | 34E | 7 | NWNE | 32.2393413 | -103.5048789 | LEA | NEW MEXI | NEW MEXI | F | NMLC0 061374 | -7265 | 13820 | 10862 | |
| PPP Leg #1-4 | 2600 | FSL | 1310 | FEL | 24S | 34E | 6 | NESE | 32.2464869 | -103.5047823 | LEA | NEW MEXI | NEW MEXI | S | STATE | -7265 | 11222 | 10862 | |
| EXIT Leg #1 | 330 | FSL | 1410 | FEL | 24S | 34E | 7 | SWSE | 32.2257356 | -103.5050543 | LEA | NEW MEXI | NEW MEXI | F | FEE | -7265 | 18772 | 10862 | |
| BHL Leg #1 | 330 | FSL | 1410 | FEL | 24S | 34E | 7 | SWSE | 32.2257356 | -103.5050543 | LEA | NEW MEXI | NEW MEXI | F | FEE | -7265 | 18772 | 10862 | |

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

# Drilling Plan Data Report

11/18/2019

**APD ID:** 10400039236 **Submission Date:** 02/19/2019

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

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

[redacted]

Show Final Text

## Section 1 - Geologic Formations

| Formation ID | Formation Name | Elevation | True Vertical Depth | Measured Depth | Lithologies | Mineral Resources | Producing Formation |
|---|---|---|---|---|---|---|---|
| 1 | — | 3597 | 0 | 0 | | NONE | N |
| 2 | RUSTLER | 2197 | 1400 | 1400 | | NONE | N |
| 3 | SALADO | 1797 | 1800 | 1800 | | NONE | N |
| 4 | TOP SALT | 1472 | 2125 | 2125 | | NONE | N |
| 5 | BASE OF SALT | -1503 | 5100 | 5100 | | NONE | N |
| 6 | LAMAR | -1678 | 5275 | 5275 | | NATURAL GAS,OIL | N |
| 7 | BELL CANYON | -1753 | 5350 | 5350 | | NATURAL GAS,OIL | N |
| 8 | CHERRY CANYON | -2628 | 6225 | 6225 | | NATURAL GAS,OIL | N |
| 9 | BRUSHY CANYON | -4103 | 7700 | 7700 | | NATURAL GAS,OIL | N |
| 10 | BONE SPRING | -5203 | 8800 | 8800 | | NATURAL GAS,OIL | N |
| 11 | AVALON SAND | -5376 | 8973 | 8973 | | NATURAL GAS,OIL | N |
| 12 | BONE SPRING 1ST | -6303 | 9900 | 9900 | | NATURAL GAS,OIL | N |
| 13 | BONE SPRING 2ND | -6877 | 10485 | 10485 | | NATURAL GAS,OIL | Y |
| 14 | BONE SPRING LIME | -7363 | 10960 | 10960 | | NATURAL GAS,OIL | N |
| 15 | BONE SPRING 3RD | -7673 | 11270 | 11270 | | NATURAL GAS,OIL | N |
| 16 | WOLFCAMP | -7778 | 11375 | 11375 | | NATURAL GAS,OIL | N |

## Section 2 - Blowout Prevention

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

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

**Equipment:** A 10M system will be installed according to Onshore Order #2 consisting of an Annular Preventer, BOP with two rams and a blind ram. BOP will be equipped with 2 side outlets (choke side shall be a minimum 3" line, and kill side will be a minimum 2" line). Kill line will be installed with (2) valves and a check valve (2" min) of proper pressure rating for the system. Remote kill line (2' min) will be installed and ran to the outer edge of the substructure and be unobstructed. A manual and hydraulic valve (3" min) will be installed on the choke line, 3 chokes will be used with one being remotely controlled. Fill up line will be installed above the uppermost preventer. Pressure gauge of proper pressure rating will be installed on choke manifold. Upper and lower kelly cocks will be utilized with handles readily available in plain sight. A float sub will be available at all times. All connections subject to well pressure will be flanged, welded, or clamped.

**Requesting Variance?** YES

**Variance request:** Flex Hose Variance

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

**Choke Diagram Attachment:**

BLUS_211H_Choke_Manifold_20190218093914.pdf

**BOP Diagram Attachment:**

BLUS_211H__Wellhead_Diagram_20190218094155.pdf

BLUS_211H_BOP_20190218094157.pdf

BLUS_211H_FlexHose_Data_20190218094159.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 | 18772 | 0 | 10862 | | | 18772 | P-110 | 20 | OTHER - GBCD | 2.2 | 2.5 | DRY | 3 | DRY | 3 |

**Casing Attachments**

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BLUS_211H_Casing_Assumptions_20190218095229.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BLUS_211H_Casing_Assumptions_20190218095536.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BLUS_211H_Casing_Assumptions_20190218095555.pdf

BLUS_211H_5_1_2_P110_GBCD_Csg_20190218095558.pdf

## Section 4 - Cement

## WELL DETAILS: Bell Lake Unit South 211H

| +N/-S | +E/-W | GL @ 3596.70 Northing | WELL @ 3618.70usft (Cactus 171) Easting | Latitude | Longitude |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 454799.80 | 798521.16 | 32° 14' 51.293 N | 103° 30' 5.206 W |

### DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| VP - Bell Lake Unit South 211H | 10384.54 | 71.28 | -1026.69 | 454871.08 | 797494.47 | 32° 14' 52.077 N | 103° 30' 17.154 W |
| PBHL - Bell Lake Unit South 211H | 10862.00 | -7956.14 | -1054.22 | 446843.66 | 797466.94 | 32° 13' 32.648 N | 103° 30' 18.196 W |
| FTP - Bell Lake Unit South 211H | 10862.00 | -406.18 | -1028.33 | 454393.62 | 797492.83 | 32° 14' 47.353 N | 103° 30' 17.216 W |

### SECTION DETAILS

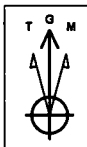
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Annotation |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.00 | |
| 3845.00 | 0.00 | 0.00 | 3845.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.00 | KOP, 2.00°/100' Build |
| 4344.85 | 10.00 | 273.97 | 4342.32 | 3.01 | -43.39 | 2.00 | 273.971 | 2.71 | Hold 10.00° Inc, 273.97° Azm |
| 9772.16 | 10.00 | 273.97 | 9687.22 | 68.26 | -983.30 | 0.00 | 0.000 | 61.49 | Begin 2.00°/100' Drop |
| 10272.01 | 0.00 | 0.00 | 10184.54 | 71.28 | -1026.69 | 2.00 | 180.000 | 64.20 | Begin Vertical Hold |
| 10472.01 | 0.00 | 0.00 | 10384.54 | 71.28 | -1026.69 | 0.00 | 0.000 | 64.20 | Begin 12.00°/100' Build |
| 11222.01 | 90.00 | 180.20 | 10862.00 | -406.19 | -1028.33 | 12.00 | 180.196 | 537.74 | Begin 90.00° Lateral |
| 18772.01 | 90.00 | 180.20 | 10862.00 | -7956.14 | -1054.22 | 0.00 | 0.000 | 8025.68 | PBHL |

Kaiser-Francis Oil Company

Company: Kaiser-Francis
Well: Bell Lake Unit South 211H
County: Lea County, New Mexico (NAD 83)
Rig: Cactus 171
Wellbore: Wellbore #1
Design: Design #1
Created By: BSW
Date: 13:09, January 16 2019

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

To convert a Magnetic Direction to a Grid Direction, Add 6.358°
To convert a Magnetic Direction to a True Direction, Add 6.802° East
To convert a True Direction to a Grid Direction, Subtract 0.444°



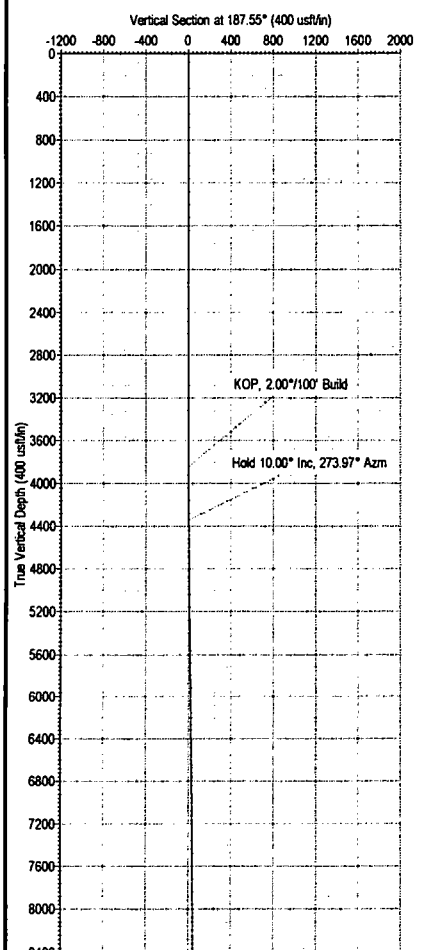

Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.36°

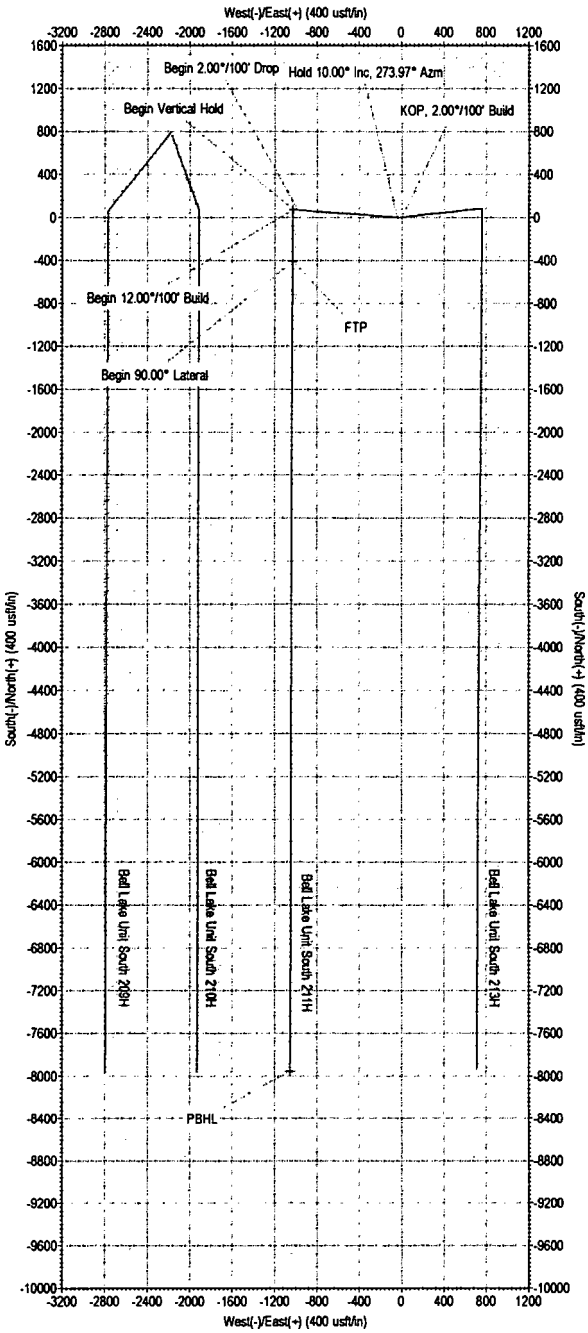
Magnetic Field
Strength: 47811.6nT
Dip Angle: 60.02°
Date: 3/27/2019
Model: BGGM2018

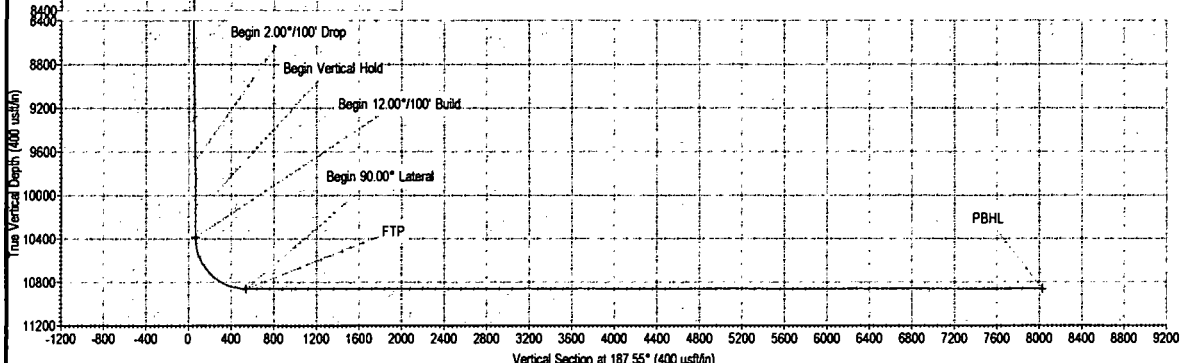
### SURVEY PROGRAM

| Depth From | Depth To | Survey/Plan | Tool |
|---|---|---|---|
| 0.00 | 18772.01 | Design #1 (Wellbore #1) | MWD |

MS Directional



Kaiser-Francis Oil Company

# Kaiser-Francis

**Lea County, New Mexico (NAD 83)**
**Bell Lake Unit South 211H**
**Bell Lake Unit South 211H**

**Wellbore #1**

**Plan: Design #1**

# Standard Planning Report

**16 January, 2019**

MS Directional

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 Conroe Db | **Local Co-ordinate Reference:** | Well Bell Lake Unit South 211H |
| **Company:** | Kaiser-Francis | **TVD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Project:** | Lea County, New Mexico (NAD 83) | **MD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Site:** | Bell Lake Unit South 211H | **North Reference:** | Grid |
| **Well:** | Bell Lake Unit South 211H | **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 211H | | | | |
| **Site Position:** | | **Northing:** | 454,799.80 usft | **Latitude:** | 32° 14' 51.293 N |
| **From:** | Map | **Easting:** | 798,521.16 usft | **Longitude:** | 103° 30' 5.206 W |
| **Position Uncertainty:** | 0.00 usft | **Slot Radius:** | 13-3/16 " | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Well** | Bell Lake Unit South 211H | | | | | | |
| **Well Position** | **+N/-S** | 0.00 usft | **Northing:** | 454,799.80 usft | **Latitude:** | 32° 14' 51.293 N |
| | **+E/-W** | 0.00 usft | **Easting:** | 798,521.16 usft | **Longitude:** | 103° 30' 5.206 W |
| **Position Uncertainty** | | 0.00 usft | **Wellhead Elevation:** | usft | **Ground Level:** | 3,596.70 usft |
| **Grid Convergence:** | | 0.444 ° | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Wellbore** | Wellbore #1 | | | | |
| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
| | BGGM2018 | 3/27/2019 | 6.802 | 60.021 | 47,811.64 |

| | | | | | |
|---|---|---|---|---|---|
| **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 | 187.55 | |

**Plan Survey Tool Program** **Date** 1/16/2019

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.00 | 18,772.01 | 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 | |
| 3,845.00 | 0.00 | 0.00 | 3,845.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | |
| 4,344.85 | 10.00 | 273.97 | 4,342.32 | 3.01 | -43.39 | 2.00 | 2.00 | 0.00 | 273.971 | |
| 9,772.16 | 10.00 | 273.97 | 9,687.22 | 68.26 | -983.30 | 0.00 | 0.00 | 0.00 | 0.000 | |
| 10,272.01 | 0.00 | 0.00 | 10,184.54 | 71.28 | -1,026.69 | 2.00 | -2.00 | 0.00 | 180.000 | |
| 10,472.01 | 0.00 | 0.00 | 10,384.54 | 71.28 | -1,026.69 | 0.00 | 0.00 | 0.00 | 0.000 | VP - Bell Lake Unit |
| 11,222.01 | 90.00 | 180.20 | 10,862.01 | -406.19 | -1,028.33 | 12.00 | 12.00 | -23.97 | 180.196 | |
| 18,772.01 | 90.00 | 180.20 | 10,862.00 | -7,956.14 | -1,054.22 | 0.00 | 0.00 | 0.00 | 0.000 | PBHL - Bell Lake U |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 Conroe Db | **Local Co-ordinate Reference:** | Well Bell Lake Unit South 211H |
| **Company:** | Kaiser-Francis | **TVD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Project:** | Lea County, New Mexico (NAD 83) | **MD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Site:** | Bell Lake Unit South 211H | **North Reference:** | Grid |
| **Well:** | Bell Lake Unit South 211H | **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 |
| 1,500.00 | 0.00 | 0.00 | 1,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 0.00 | 0.00 | 1,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 0.00 | 0.00 | 1,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 0.00 | 0.00 | 1,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 0.00 | 0.00 | 1,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 0.00 | 0.00 | 2,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 0.00 | 0.00 | 2,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 0.00 | 0.00 | 2,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 0.00 | 0.00 | 2,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 0.00 | 0.00 | 2,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 0.00 | 0.00 | 2,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 0.00 | 0.00 | 2,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 0.00 | 0.00 | 2,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 0.00 | 0.00 | 2,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 0.00 | 0.00 | 3,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 0.00 | 0.00 | 3,100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 0.00 | 0.00 | 3,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 0.00 | 0.00 | 3,300.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 0.00 | 0.00 | 3,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 0.00 | 0.00 | 3,500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 0.00 | 0.00 | 3,600.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 0.00 | 0.00 | 3,700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 0.00 | 0.00 | 3,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,845.00 | 0.00 | 0.00 | 3,845.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **KOP, 2.00°/100' Build** | | | | | | | | | |
| 3,900.00 | 1.10 | 273.97 | 3,900.00 | 0.04 | -0.53 | 0.03 | 2.00 | 2.00 | 0.00 |
| 4,000.00 | 3.10 | 273.97 | 3,999.92 | 0.29 | -4.18 | 0.26 | 2.00 | 2.00 | 0.00 |
| 4,100.00 | 5.10 | 273.97 | 4,099.66 | 0.79 | -11.31 | 0.71 | 2.00 | 2.00 | 0.00 |
| 4,200.00 | 7.10 | 273.97 | 4,199.09 | 1.52 | -21.91 | 1.37 | 2.00 | 2.00 | 0.00 |
| 4,300.00 | 9.10 | 273.97 | 4,298.09 | 2.50 | -35.97 | 2.25 | 2.00 | 2.00 | 0.00 |
| 4,344.85 | 10.00 | 273.97 | 4,342.32 | 3.01 | -43.39 | 2.71 | 2.00 | 2.00 | 0.00 |
| **Hold 10.00° Inc, 273.97° Azm** | | | | | | | | | |
| 4,400.00 | 10.00 | 273.97 | 4,396.63 | 3.68 | -52.94 | 3.31 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 10.00 | 273.97 | 4,495.11 | 4.88 | -70.26 | 4.39 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 10.00 | 273.97 | 4,593.59 | 6.08 | -87.58 | 5.48 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 10.00 | 273.97 | 4,692.08 | 7.28 | -104.90 | 6.56 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 10.00 | 273.97 | 4,790.56 | 8.48 | -122.22 | 7.64 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 Conroe Db | **Local Co-ordinate Reference:** | Well Bell Lake Unit South 211H |
| **Company:** | Kaiser-Francis | **TVD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Project:** | Lea County, New Mexico (NAD 83) | **MD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Site:** | Bell Lake Unit South 211H | **North Reference:** | Grid |
| **Well:** | Bell Lake Unit South 211H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 4,900.00 | 10.00 | 273.97 | 4,889.04 | 9.69 | -139.53 | 8.73 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 10.00 | 273.97 | 4,987.52 | 10.89 | -156.85 | 9.81 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 10.00 | 273.97 | 5,086.00 | 12.09 | -174.17 | 10.89 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 10.00 | 273.97 | 5,184.48 | 13.29 | -191.49 | 11.97 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 10.00 | 273.97 | 5,282.97 | 14.50 | -208.81 | 13.06 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 10.00 | 273.97 | 5,381.45 | 15.70 | -226.12 | 14.14 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 10.00 | 273.97 | 5,479.93 | 16.90 | -243.44 | 15.22 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 10.00 | 273.97 | 5,578.41 | 18.10 | -260.76 | 16.31 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 10.00 | 273.97 | 5,676.89 | 19.31 | -278.08 | 17.39 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 10.00 | 273.97 | 5,775.37 | 20.51 | -295.40 | 18.47 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 10.00 | 273.97 | 5,873.86 | 21.71 | -312.71 | 19.56 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 10.00 | 273.97 | 5,972.34 | 22.91 | -330.03 | 20.64 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 10.00 | 273.97 | 6,070.82 | 24.11 | -347.35 | 21.72 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 10.00 | 273.97 | 6,169.30 | 25.32 | -364.67 | 22.80 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 10.00 | 273.97 | 6,267.78 | 26.52 | -381.99 | 23.89 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 10.00 | 273.97 | 6,366.26 | 27.72 | -399.31 | 24.97 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 10.00 | 273.97 | 6,464.75 | 28.92 | -416.62 | 26.05 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 10.00 | 273.97 | 6,563.23 | 30.13 | -433.94 | 27.14 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 10.00 | 273.97 | 6,661.71 | 31.33 | -451.26 | 28.22 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 10.00 | 273.97 | 6,760.19 | 32.53 | -468.58 | 29.30 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 10.00 | 273.97 | 6,858.67 | 33.73 | -485.90 | 30.38 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 10.00 | 273.97 | 6,957.15 | 34.94 | -503.21 | 31.47 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 10.00 | 273.97 | 7,055.64 | 36.14 | -520.53 | 32.55 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 10.00 | 273.97 | 7,154.12 | 37.34 | -537.85 | 33.63 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 10.00 | 273.97 | 7,252.60 | 38.54 | -555.17 | 34.72 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 10.00 | 273.97 | 7,351.08 | 39.74 | -572.49 | 35.80 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 10.00 | 273.97 | 7,449.56 | 40.95 | -589.81 | 36.88 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 10.00 | 273.97 | 7,548.04 | 42.15 | -607.12 | 37.97 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 10.00 | 273.97 | 7,646.53 | 43.35 | -624.44 | 39.05 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 10.00 | 273.97 | 7,745.01 | 44.55 | -641.76 | 40.13 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 10.00 | 273.97 | 7,843.49 | 45.76 | -659.08 | 41.21 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 10.00 | 273.97 | 7,941.97 | 46.96 | -676.40 | 42.30 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 10.00 | 273.97 | 8,040.45 | 48.16 | -693.71 | 43.38 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 10.00 | 273.97 | 8,138.93 | 49.36 | -711.03 | 44.46 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 10.00 | 273.97 | 8,237.42 | 50.57 | -728.35 | 45.55 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 10.00 | 273.97 | 8,335.90 | 51.77 | -745.67 | 46.63 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 10.00 | 273.97 | 8,434.38 | 52.97 | -762.99 | 47.71 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 10.00 | 273.97 | 8,532.86 | 54.17 | -780.30 | 48.80 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 10.00 | 273.97 | 8,631.34 | 55.37 | -797.62 | 49.88 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 10.00 | 273.97 | 8,729.82 | 56.58 | -814.94 | 50.96 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 10.00 | 273.97 | 8,828.31 | 57.78 | -832.26 | 52.04 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 10.00 | 273.97 | 8,926.79 | 58.98 | -849.58 | 53.13 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 10.00 | 273.97 | 9,025.27 | 60.18 | -866.90 | 54.21 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 10.00 | 273.97 | 9,123.75 | 61.39 | -884.21 | 55.29 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 10.00 | 273.97 | 9,222.23 | 62.59 | -901.53 | 56.38 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 10.00 | 273.97 | 9,320.71 | 63.79 | -918.85 | 57.46 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 10.00 | 273.97 | 9,419.20 | 64.99 | -936.17 | 58.54 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 10.00 | 273.97 | 9,517.68 | 66.19 | -953.49 | 59.62 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 10.00 | 273.97 | 9,616.16 | 67.40 | -970.80 | 60.71 | 0.00 | 0.00 | 0.00 |
| 9,772.16 | 10.00 | 273.97 | 9,687.22 | 68.26 | -983.30 | 61.49 | 0.00 | 0.00 | 0.00 |
| **Begin 2.00°/100' Drop** | | | | | | | | | |
| 9,800.00 | 9.44 | 273.97 | 9,714.66 | 68.59 | -987.99 | 61.78 | 2.00 | -2.00 | 0.00 |
| 9,900.00 | 7.44 | 273.97 | 9,813.58 | 69.61 | -1,002.63 | 62.70 | 2.00 | -2.00 | 0.00 |
| 10,000.00 | 5.44 | 273.97 | 9,912.94 | 70.38 | -1,013.82 | 63.40 | 2.00 | -2.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 Conroe Db | **Local Co-ordinate Reference:** | Well Bell Lake Unit South 211H |
| **Company:** | Kaiser-Francis | **TVD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Project:** | Lea County, New Mexico (NAD 83) | **MD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Site:** | Bell Lake Unit South 211H | **North Reference:** | Grid |
| **Well:** | Bell Lake Unit South 211H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 10,100.00 | 3.44 | 273.97 | 10,012.63 | 70.92 | -1,021.54 | 63.88 | 2.00 | -2.00 | 0.00 |
| 10,200.00 | 1.44 | 273.97 | 10,112.54 | 71.21 | -1,025.79 | 64.15 | 2.00 | -2.00 | 0.00 |
| 10,272.01 | 0.00 | 0.00 | 10,184.54 | 71.28 | -1,026.69 | 64.20 | 2.00 | -2.00 | 0.00 |
| **Begin Vertical Hold** | | | | | | | | | |
| 10,300.00 | 0.00 | 0.00 | 10,212.53 | 71.28 | -1,026.69 | 64.20 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 0.00 | 0.00 | 10,312.53 | 71.28 | -1,026.69 | 64.20 | 0.00 | 0.00 | 0.00 |
| 10,472.01 | 0.00 | 0.00 | 10,384.54 | 71.28 | -1,026.69 | 64.20 | 0.00 | 0.00 | 0.00 |
| **Begin 12.00°/100' Build** | | | | | | | | | |
| 10,500.00 | 3.36 | 180.20 | 10,412.51 | 70.46 | -1,026.70 | 65.02 | 12.00 | 12.00 | 0.00 |
| 10,600.00 | 15.36 | 180.20 | 10,511.00 | 54.23 | -1,026.75 | 81.11 | 12.00 | 12.00 | 0.00 |
| 10,700.00 | 27.36 | 180.20 | 10,603.96 | 17.87 | -1,026.88 | 117.17 | 12.00 | 12.00 | 0.00 |
| 10,800.00 | 39.36 | 180.20 | 10,687.34 | -37.02 | -1,027.06 | 171.61 | 12.00 | 12.00 | 0.00 |
| 10,900.00 | 51.36 | 180.20 | 10,757.47 | -108.04 | -1,027.31 | 242.04 | 12.00 | 12.00 | 0.00 |
| 11,000.00 | 63.36 | 180.20 | 10,811.31 | -192.09 | -1,027.60 | 325.41 | 12.00 | 12.00 | 0.00 |
| 11,100.00 | 75.36 | 180.20 | 10,846.50 | -285.50 | -1,027.92 | 418.05 | 12.00 | 12.00 | 0.00 |
| 11,200.00 | 87.36 | 180.20 | 10,861.50 | -384.18 | -1,028.25 | 515.92 | 12.00 | 12.00 | 0.00 |
| 11,222.01 | 90.00 | 180.20 | 10,862.01 | -406.19 | -1,028.33 | 537.74 | 12.00 | 12.00 | 0.00 |
| **Begin 90.00° Lateral** | | | | | | | | | |
| 11,300.00 | 90.00 | 180.20 | 10,862.01 | -484.17 | -1,028.60 | 615.09 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.00 | 180.20 | 10,862.00 | -584.17 | -1,028.94 | 714.27 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.00 | 180.20 | 10,862.00 | -684.17 | -1,029.28 | 813.45 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.00 | 180.20 | 10,862.00 | -784.17 | -1,029.63 | 912.63 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.00 | 180.20 | 10,862.00 | -884.17 | -1,029.97 | 1,011.80 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.00 | 180.20 | 10,862.00 | -984.17 | -1,030.31 | 1,110.98 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 90.00 | 180.20 | 10,862.00 | -1,084.17 | -1,030.65 | 1,210.16 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 90.00 | 180.20 | 10,862.00 | -1,184.17 | -1,031.00 | 1,309.34 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 90.00 | 180.20 | 10,862.00 | -1,284.17 | -1,031.34 | 1,408.52 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 90.00 | 180.20 | 10,862.00 | -1,384.17 | -1,031.68 | 1,507.69 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 90.00 | 180.20 | 10,862.00 | -1,484.17 | -1,032.03 | 1,606.87 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 90.00 | 180.20 | 10,862.00 | -1,584.17 | -1,032.37 | 1,706.05 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 90.00 | 180.20 | 10,862.00 | -1,684.17 | -1,032.71 | 1,805.23 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 90.00 | 180.20 | 10,862.00 | -1,784.17 | -1,033.06 | 1,904.41 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 90.00 | 180.20 | 10,862.00 | -1,884.17 | -1,033.40 | 2,003.58 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 90.00 | 180.20 | 10,862.00 | -1,984.17 | -1,033.74 | 2,102.76 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 90.00 | 180.20 | 10,862.00 | -2,084.17 | -1,034.08 | 2,201.94 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 90.00 | 180.20 | 10,862.00 | -2,184.16 | -1,034.43 | 2,301.12 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 90.00 | 180.20 | 10,862.00 | -2,284.16 | -1,034.77 | 2,400.30 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 90.00 | 180.20 | 10,862.00 | -2,384.16 | -1,035.11 | 2,499.47 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 90.00 | 180.20 | 10,862.00 | -2,484.16 | -1,035.46 | 2,598.65 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 90.00 | 180.20 | 10,862.00 | -2,584.16 | -1,035.80 | 2,697.83 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 90.00 | 180.20 | 10,862.00 | -2,684.16 | -1,036.14 | 2,797.01 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 90.00 | 180.20 | 10,862.00 | -2,784.16 | -1,036.48 | 2,896.19 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 90.00 | 180.20 | 10,862.00 | -2,884.16 | -1,036.83 | 2,995.36 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 90.00 | 180.20 | 10,862.00 | -2,984.16 | -1,037.17 | 3,094.54 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 90.00 | 180.20 | 10,862.00 | -3,084.16 | -1,037.51 | 3,193.72 | 0.00 | 0.00 | 0.00 |
| 14,000.00 | 90.00 | 180.20 | 10,862.00 | -3,184.16 | -1,037.86 | 3,292.90 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 90.00 | 180.20 | 10,862.00 | -3,284.16 | -1,038.20 | 3,392.08 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 90.00 | 180.20 | 10,862.00 | -3,384.16 | -1,038.54 | 3,491.25 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 90.00 | 180.20 | 10,862.00 | -3,484.16 | -1,038.88 | 3,590.43 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 90.00 | 180.20 | 10,862.00 | -3,584.16 | -1,039.23 | 3,689.61 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 90.00 | 180.20 | 10,862.00 | -3,684.16 | -1,039.57 | 3,788.79 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 90.00 | 180.20 | 10,862.00 | -3,784.16 | -1,039.91 | 3,887.97 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 90.00 | 180.20 | 10,862.00 | -3,884.15 | -1,040.26 | 3,987.14 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 Conroe Db | **Local Co-ordinate Reference:** | Well Bell Lake Unit South 211H |
| **Company:** | Kaiser-Francis | **TVD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Project:** | Lea County, New Mexico (NAD 83) | **MD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Site:** | Bell Lake Unit South 211H | **North Reference:** | Grid |
| **Well:** | Bell Lake Unit South 211H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 14,800.00 | 90.00 | 180.20 | 10,862.00 | -3,984.15 | -1,040.60 | 4,086.32 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 90.00 | 180.20 | 10,862.00 | -4,084.15 | -1,040.94 | 4,185.50 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 90.00 | 180.20 | 10,862.00 | -4,184.15 | -1,041.29 | 4,284.68 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 90.00 | 180.20 | 10,862.00 | -4,284.15 | -1,041.63 | 4,383.86 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 90.00 | 180.20 | 10,862.00 | -4,384.15 | -1,041.97 | 4,483.03 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 90.00 | 180.20 | 10,862.00 | -4,484.15 | -1,042.31 | 4,582.21 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 90.00 | 180.20 | 10,862.00 | -4,584.15 | -1,042.66 | 4,681.39 | 0.00 | 0.00 | 0.00 |
| 15,500.00 | 90.00 | 180.20 | 10,862.00 | -4,684.15 | -1,043.00 | 4,780.57 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 90.00 | 180.20 | 10,862.00 | -4,784.15 | -1,043.34 | 4,879.75 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 90.00 | 180.20 | 10,862.00 | -4,884.15 | -1,043.69 | 4,978.92 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 90.00 | 180.20 | 10,862.00 | -4,984.15 | -1,044.03 | 5,078.10 | 0.00 | 0.00 | 0.00 |
| 15,900.00 | 90.00 | 180.20 | 10,862.00 | -5,084.15 | -1,044.37 | 5,177.28 | 0.00 | 0.00 | 0.00 |
| 16,000.00 | 90.00 | 180.20 | 10,862.00 | -5,184.15 | -1,044.71 | 5,276.46 | 0.00 | 0.00 | 0.00 |
| 16,100.00 | 90.00 | 180.20 | 10,862.00 | -5,284.15 | -1,045.06 | 5,375.64 | 0.00 | 0.00 | 0.00 |
| 16,200.00 | 90.00 | 180.20 | 10,862.00 | -5,384.15 | -1,045.40 | 5,474.81 | 0.00 | 0.00 | 0.00 |
| 16,300.00 | 90.00 | 180.20 | 10,862.00 | -5,484.15 | -1,045.74 | 5,573.99 | 0.00 | 0.00 | 0.00 |
| 16,400.00 | 90.00 | 180.20 | 10,862.00 | -5,584.14 | -1,046.09 | 5,673.17 | 0.00 | 0.00 | 0.00 |
| 16,500.00 | 90.00 | 180.20 | 10,862.00 | -5,684.14 | -1,046.43 | 5,772.35 | 0.00 | 0.00 | 0.00 |
| 16,600.00 | 90.00 | 180.20 | 10,862.00 | -5,784.14 | -1,046.77 | 5,871.53 | 0.00 | 0.00 | 0.00 |
| 16,700.00 | 90.00 | 180.20 | 10,862.00 | -5,884.14 | -1,047.11 | 5,970.70 | 0.00 | 0.00 | 0.00 |
| 16,800.00 | 90.00 | 180.20 | 10,862.00 | -5,984.14 | -1,047.46 | 6,069.88 | 0.00 | 0.00 | 0.00 |
| 16,900.00 | 90.00 | 180.20 | 10,862.00 | -6,084.14 | -1,047.80 | 6,169.06 | 0.00 | 0.00 | 0.00 |
| 17,000.00 | 90.00 | 180.20 | 10,862.00 | -6,184.14 | -1,048.14 | 6,268.24 | 0.00 | 0.00 | 0.00 |
| 17,100.00 | 90.00 | 180.20 | 10,862.00 | -6,284.14 | -1,048.49 | 6,367.42 | 0.00 | 0.00 | 0.00 |
| 17,200.00 | 90.00 | 180.20 | 10,862.00 | -6,384.14 | -1,048.83 | 6,466.59 | 0.00 | 0.00 | 0.00 |
| 17,300.00 | 90.00 | 180.20 | 10,862.00 | -6,484.14 | -1,049.17 | 6,565.77 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 90.00 | 180.20 | 10,862.00 | -6,584.14 | -1,049.52 | 6,664.95 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 90.00 | 180.20 | 10,862.00 | -6,684.14 | -1,049.86 | 6,764.13 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 90.00 | 180.20 | 10,862.00 | -6,784.14 | -1,050.20 | 6,863.31 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 90.00 | 180.20 | 10,862.00 | -6,884.14 | -1,050.54 | 6,962.48 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 90.00 | 180.20 | 10,862.00 | -6,984.14 | -1,050.89 | 7,061.66 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 90.00 | 180.20 | 10,862.00 | -7,084.14 | -1,051.23 | 7,160.84 | 0.00 | 0.00 | 0.00 |
| 18,000.00 | 90.00 | 180.20 | 10,862.00 | -7,184.14 | -1,051.57 | 7,260.02 | 0.00 | 0.00 | 0.00 |
| 18,100.00 | 90.00 | 180.20 | 10,862.00 | -7,284.13 | -1,051.92 | 7,359.20 | 0.00 | 0.00 | 0.00 |
| 18,200.00 | 90.00 | 180.20 | 10,862.00 | -7,384.13 | -1,052.26 | 7,458.37 | 0.00 | 0.00 | 0.00 |
| 18,300.00 | 90.00 | 180.20 | 10,862.00 | -7,484.13 | -1,052.60 | 7,557.55 | 0.00 | 0.00 | 0.00 |
| 18,400.00 | 90.00 | 180.20 | 10,862.00 | -7,584.13 | -1,052.94 | 7,656.73 | 0.00 | 0.00 | 0.00 |
| 18,500.00 | 90.00 | 180.20 | 10,862.00 | -7,684.13 | -1,053.29 | 7,755.91 | 0.00 | 0.00 | 0.00 |
| 18,600.00 | 90.00 | 180.20 | 10,862.00 | -7,784.13 | -1,053.63 | 7,855.08 | 0.00 | 0.00 | 0.00 |
| 18,700.00 | 90.00 | 180.20 | 10,862.00 | -7,884.13 | -1,053.97 | 7,954.26 | 0.00 | 0.00 | 0.00 |
| 18,772.01 | 90.00 | 180.20 | 10,862.00 | -7,956.14 | -1,054.22 | 8,025.68 | 0.00 | 0.00 | 0.00 |
| **PBHL** | | | | | | | | | |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 Conroe Db | **Local Co-ordinate Reference:** | Well Bell Lake Unit South 211H |
| **Company:** | Kaiser-Francis | **TVD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Project:** | Lea County, New Mexico (NAD 83) | **MD Reference:** | WELL @ 3618.70usft (Cactus 171) |
| **Site:** | Bell Lake Unit South 211H | **North Reference:** | Grid |
| **Well:** | Bell Lake Unit South 211H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Design #1 | | |

**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 - Bell Lake Unit Sc<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 10,384.54 | 71.28 | -1,026.69 | 454,871.08 | 797,494.47 | 32° 14' 52.077 N | 103° 30' 17.154 W |
| FTP - Bell Lake Unit S<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 10,862.00 | -406.18 | -1,028.33 | 454,393.62 | 797,492.83 | 32° 14' 47.353 N | 103° 30' 17.216 W |
| PBHL - Bell Lake Unit<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 10,862.00 | -7,956.14 | -1,054.22 | 446,843.66 | 797,466.94 | 32° 13' 32.648 N | 103° 30' 18.196 W |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 3,845.00 | 3,845.00 | 0.00 | 0.00 | KOP, 2.00°/100' Build |
| 4,344.85 | 4,342.32 | 3.01 | -43.39 | Hold 10.00° Inc, 273.97° Azm |
| 9,772.16 | 9,687.22 | 68.26 | -983.30 | Begin 2.00°/100' Drop |
| 10,272.01 | 10,184.54 | 71.28 | -1,026.69 | Begin Vertical Hold |
| 10,472.01 | 10,384.54 | 71.28 | -1,026.69 | Begin 12.00°/100' Build |
| 11,222.01 | 10,862.01 | -406.19 | -1,028.33 | Begin 90.00° Lateral |
| 18,772.01 | 10,862.00 | -7,956.14 | -1,054.22 | PBHL |

**APD ID:** 10400039236 **Submission Date:** 02/19/2019

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

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

[redacted]
Show Final Text

## Section 1 - Existing Roads

**Will existing roads be used?** YES

**Existing Road Map:**

BLUS_211H_Existing_Roads_20190218101359.pdf

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

### ROW ID(s)

**ID:**

**Do the existing roads need to be improved?** NO

**Existing Road Improvement Description:**

**Existing Road Improvement Attachment:**

## Section 2 - New or Reconstructed Access Roads

**Will new roads be needed?** YES

**New Road Map:**

BLUS_211H_Access_Road_20190218101627.pdf

**New road type:** RESOURCE

**Length:** 765 Feet **Width (ft.):** 25

**Max slope (%):** 2 **Max grade (%):** 2

**Army Corp of Engineers (ACOE) permit required?** NO

**ACOE Permit Number(s):**

**New road travel width:** 15

**New road access erosion control:** Road construction requirements and regular maintenance would alleviate potential impacts to the access road from water erosion damage.

**New road access plan or profile prepared?** NO

**New road access plan attachment:**

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Turnout?** N

**Access surfacing type:** OTHER

**Access topsoil source:** BOTH

**Access surfacing type description:** Native caliche

**Access onsite topsoil source depth:** 6

**Offsite topsoil source description:** Material will be obtained from BLM caliche pit in SWSW Section 22-T24S-R34E or NENE Section 20-T23S-R33E

**Onsite topsoil removal process:** The top 6 inches of topsoil is pushed off and stockpiled along the side of the location. An approximate 160' X 160' area is used within the proposed well site to remove caliche. Subsoil is removed and stockpiled within the pad site to build the location and road. Then subsoil is pushed back in the hole and caliche is spread accordingly across proposed access road.

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:** **Access turnout map:**

## Drainage Control

**New road drainage crossing:** OTHER

**Drainage Control comments:** Proposed access road will be crowned and ditched and constructed of 6 inch rolled and compacted caliche. Water will be diverted where necessary to avoid ponding, maintain good drainage, and to be consistentwith local drainage patterns.

**Road Drainage Control Structures (DCS) description:** The ditches will be 3' wide with 3:1 slopes

**Road Drainage Control Structures (DCS) attachment:**

## Access Additional Attachments

## Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

**Attach Well map:**

BLUS_211H_1_Mile_Wells_20190218102034.pdf

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

**Submit or defer a Proposed Production Facilities plan?** DEFER

**Estimated Production Facilities description:** Production facilities are planned for the east 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

**Water source transport method:** TRUCKING

**Source land ownership:** PRIVATE

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

**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_211H_Water_Source_Map_20190218102959.pdf

BLUS_211H_Water_Source_Locations_20190527190916.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:** 211H

## 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

## Reserve Pit

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

**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_211H_Well_Pad_Layout_20190218103341.pdf
BLUS_Pad_10_Drilling_Layout_Amended_20190528142556.pdf

**Comments:**

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

## Section 10 - Plans for Surface Reclamation

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

**Multiple Well Pad Number:** 10

**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):** 5.969

**Road proposed disturbance (acres):** 0.43905

**Powerline proposed disturbance (acres):** 0

**Pipeline proposed disturbance (acres):** 0

**Other proposed disturbance (acres):** 0

**Total proposed disturbance:** 6.40805

**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):** 5.969

**Road long term disturbance (acres):** 0.43905

**Powerline long term disturbance (acres):** 0

**Pipeline long term disturbance (acres):** 0

**Other long term disturbance (acres):** 0

**Total long term disturbance:** 6.40805

**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:** 211H

**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:** STATE GOVERNMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:** COMMISSIONER OF PUBLIC LANDS, PO BOX 1148, SANTA FE, NM 87504

**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:** 211H

**Fee Owner:** Mark T. McCloy & Annette E McCloy **Fee Owner Address:** P. O. Box 795

**Phone:** (432)940-4459 **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 dated October 4, 2016 between Mark T McCloy and Annette E McCloy Revocable Living Trust 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:** STATE GOVERNMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:** COMMISSIONER OF PUBLIC LANDS, PO BOX 1148, SANTA FE, NM 87504-1148

**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:** 211H

## 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

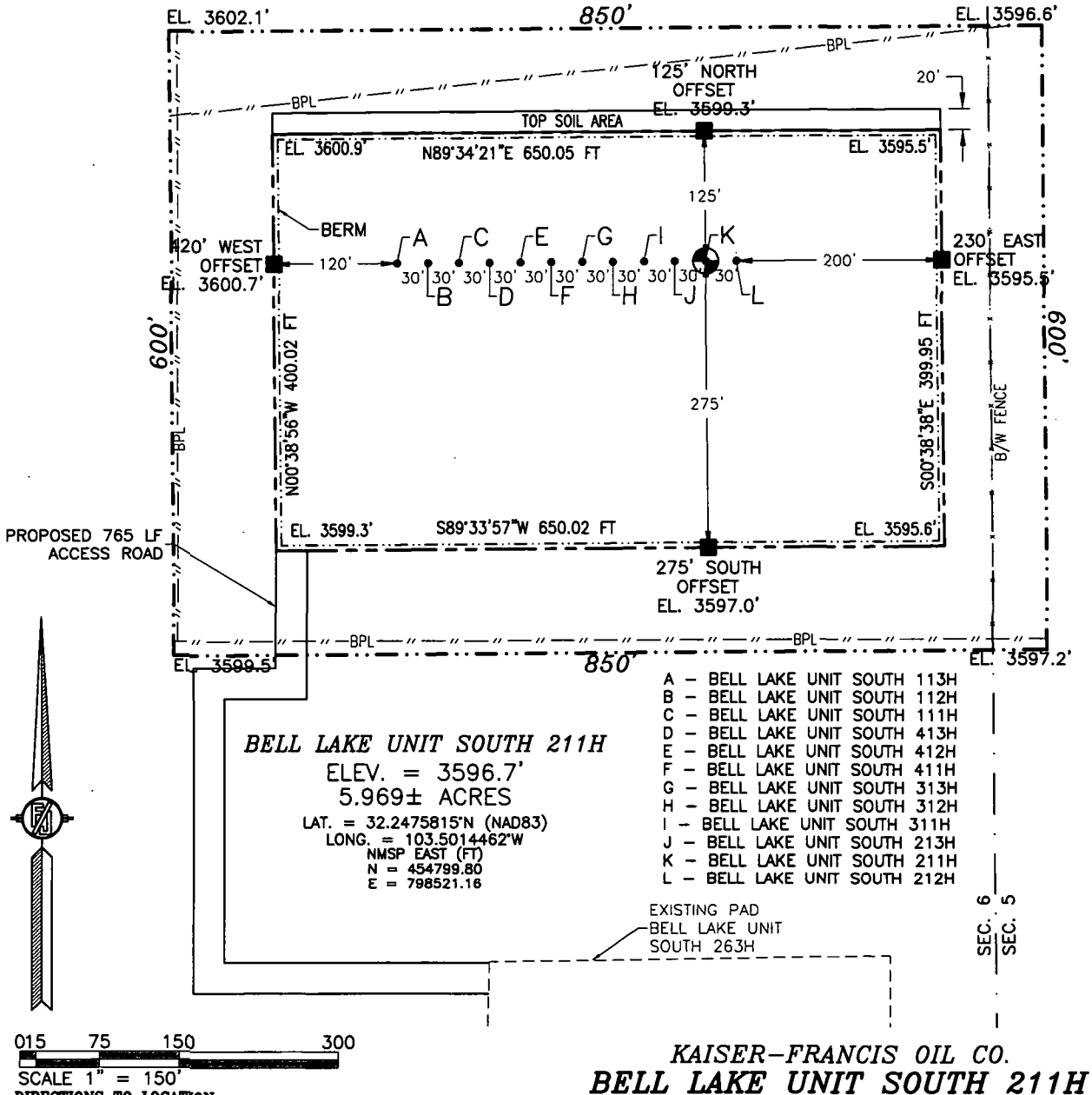
**Previous Onsite information:**

## Other SUPO Attachment

BLUS_211H_SPCC_Pad_10_20190218104350.pdf

# SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
# LEA COUNTY, STATE OF NEW MEXICO
# SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAVD88.




A – BELL LAKE UNIT SOUTH 113H
B – BELL LAKE UNIT SOUTH 112H
C – BELL LAKE UNIT SOUTH 111H
D – BELL LAKE UNIT SOUTH 413H
E – BELL LAKE UNIT SOUTH 412H
F – BELL LAKE UNIT SOUTH 411H
G – BELL LAKE UNIT SOUTH 313H
H – BELL LAKE UNIT SOUTH 312H
I – BELL LAKE UNIT SOUTH 311H
J – BELL LAKE UNIT SOUTH 213H
K – BELL LAKE UNIT SOUTH 211H
L – BELL LAKE UNIT SOUTH 212H

**BELL LAKE UNIT SOUTH 211H**
ELEV. = 3596.7'
5.969± ACRES
LAT. = 32.2475815°N (NAD83)
LONG. = 103.5014462°W
NMSP EAST (FT)
N = 454799.80
E = 798521.16

015 75 150 300
SCALE 1" = 150'

**DIRECTIONS TO LOCATION**
FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR E21 (DELAWARE BASIN ROAD) GO NORTH ON CR E21 APPROX. 2.6 MILES TO CR J1 (BELL LAKE ROAD) TURN RIGHT ON LEASE ROAD AND GO EAST-SOUTHEAST APPROX. 0.6 OF A MILE TO THE KAISER-FRANCIS BELL LAKE SOUTH PAD 11, FROM THE NORTHWEST PORTION OF THE EXISTING PAD FOLLOW PROPOSED ACCESS ROAD WEST FOR 272', TURN RIGHT AND GO NORTH 285', TURN RIGHT AND GO EAST 80', TURN LEFT AND GO NORTH 128' (TOTAL 765') TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

KAISER-FRANCIS OIL CO.
**BELL LAKE UNIT SOUTH 211H**
LOCATED 2276 FT. FROM THE NORTH LINE AND 277 FT. FROM THE EAST LINE OF SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 12, 2018

SURVEY NO. 6743

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

AFMSS

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

# PWD Data Report

11/18/2019

**APD ID:** 10400039236 **Submission Date:** 02/19/2019

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

**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:** 211H

**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:** 211H

**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:** 211H

**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:** 10400039236 **Submission Date:** 02/19/2019

**Operator Name:** KAISER FRANCIS OIL COMPANY

**Well Name:** BELL LAKE UNIT SOUTH **Well Number:** 211H

**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:**