HOBBS OCD

MAY 02 2019

RECEIVED

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM100594

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

7. If Unit or CA Agreement, Name and No.
BELL LAKE / NMNM068292X

8. Lease Name and Well No.
BELL LAKE UNIT SOUTH
207H (316706)

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

9. API Well No.
30-025-45908

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

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

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

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

At surface SENW / 2520 FNL / 1335 FWL / LAT 32.2469143 / LONG -103.5132061

At proposed prod. zone SWSW / 330 FSL / 350 FWL / LAT 32.2257295 / LONG -103.516384

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)
350 feet

16. No of acres in lease
438.76

17. Spacing Unit dedicated to this well
240

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

19. Proposed Depth
10862 feet / 18744 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3614 feet

22. Approximate date work will start*
01/01/2018

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: (575)914-1461	11/15/2018

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	04/05/2019
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 04/02/19

APPROVED WITH CONDITIONS

Approval Date: 04/05/2019

KA 04/06/19

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

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

(Continued on page 3)

Additional Operator Remarks

Location of Well

1. SHL: SENW / 2520 FNL / 1335 FWL / TWSP: 24S / RANGE: 34E / SECTION: 6 / LAT: 32.2469143 / LONG: -103.5132061 (TVD: 0 feet, MD: 0 feet)
   PPP: NWSW / 2640 FNL / 350 FWL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.2320807 / LONG: -103.5175191 (TVD: 10862 feet, MD: 16436 feet)
   PPP: NWNW / 0 FNL / 411 FWL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.2393361 / LONG: -103.5175203 (TVD: 10862 feet, MD: 13800 feet)
   PPP: NWSW / 2600 FSL / 410 FWL / TWSP: 24S / RANGE: 34E / SECTION: 6 / LAT: 32.2464819 / LONG: -103.5161972 (TVD: 10862 feet, MD: 11194 feet)
   BHL: SWSW / 330 FSL / 350 FWL / TWSP: 24S / RANGE: 34E / SECTION: 7 / LAT: 32.2257295 / LONG: -103.516384 (TVD: 10862 feet, MD: 18744 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 Oil Company
LEASE NO.:	NMNM100594
WELL NAME & NO.:	Bell Lake Unit South 207H
SURFACE HOLE FOOTAGE:	2520'/N & 1335'/W
BOTTOM HOLE FOOTAGE	330'/S & 350'/E
LOCATION:	Section 6, T.24 S., R.34 E., 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. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **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 completing the cement job.
   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 that string.
   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 set at approximately **5200'** and cemented to surface.
   a. **If cement does not circulate to surface,** see B.1.a, b & d.
3. The minimum required fill of cement behind the **5-1/2"** production casing is:
   a. Cement shall tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

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

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

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.
2. A commercial well determination shall be submitted after production has been established for at least six months.

DR 3/29/2019

GENERAL REQUIREMENTS

1. The BLM is to be notified in advance for a representative to witness:
   a. Spudding well (minimum of 24 hours)
   b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
   c. BOPE tests (minimum of 4 hours)
      ☒ Chaves and Roosevelt Counties
      Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
      During office hours call (575) 627-0272.
      After office hours call (575)
      ☒ Eddy County
      Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
      ☒ Lea County
      Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

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

A. CASING

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

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

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

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

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

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

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

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

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

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

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

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
   a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.
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. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
f. 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.
g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

2. 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.

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

AFMSS

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

Operator Certification Data Report

04/05/2019

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 subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Melanie Wilson **Signed on:** 11/15/2018

Title: Regulatory Analyst

Street Address: 106 W. Riverside Drive

City: Carlsbad **State:** NM **Zip:** 88220

Phone: (575)914-1461

Email address: nmogrservices@gmail.com

Field Representative

Representative Name: Eric Hanson

Street Address: 6733 S Yale Ave

City: Tulsa **State:** OK **Zip:** 74136

Phone: (918)770-2682

Email address: erich@kfoc.net

AFMSS

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

Application Data Report

04/05/2019

APD ID: 10400036233 **Submission Date:** 11/15/2018

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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

[redacted]

Show Final Text

Section 1 - General

APD ID: 10400036233 **Tie to previous NOS?** **Submission Date:** 11/15/2018

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: NMNM100594 **Lease Acres:** 438.76

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:** 207H **Well API Number:**

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

Is the proposed well in an area containing other mineral resources? POTASH

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

Describe other minerals:

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:** 6

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 20 FT **Distance to lease line:** 350 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: BLUS_207H_C102_20181112084708.pdf

BLUS_207H_Pymt_Receipt_20181115121217.pdf

Well work start Date: 01/01/2018 **Duration:** 40 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 5933A

	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
SHL Leg #1	2520	FNL	1335	FWL	24S	34E	6	Aliquot SENW	32.2469143	-103.5132061	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3614	0	0
KOP Leg #1	2207	FNL	411	FWL	24S	34E	6	Aliquot SWNW	32.2477941	-103.5161854	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-6776	10450	10390
PPP Leg #1	2600	FSL	410	FWL	24S	34E	6	Aliquot NWSW	32.2464819	-103.5161972	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7248	11194	10862

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

	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
PPP Leg #1	0	FNL	411	FWL	24S	34E	7	Aliquot NWNW	32.2393361	-103.5175208	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 100594	-7248	13800	10862
PPP Leg #1	2640	FNL	350	FWL	24S	34E	7	Aliquot NWSW	32.2320807	-103.5175191	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7248	16436	10862
EXIT Leg #1	330	FSL	350	FWL	24S	34E	7	Aliquot SWSW	32.2257295	-103.5163384	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7248	18744	10862
BHL Leg #1	330	FSL	350	FWL	24S	34E	7	Aliquot SWSW	32.2257295	-103.5163384	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7248	18744	10862

APD ID: 10400036233 **Submission Date:** 11/15/2018

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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	---	3614	0	0		NONE	No
2	RUSTLER	2214	1400	1400		NONE	No
3	SALADO	1814	1800	1800		NONE	No
4	TOP SALT	1464	2150	2150		NONE	No
5	BASE OF SALT	-1436	5050	5050		NONE	No
6	LAMAR	-1686	5300	5300		NATURAL GAS,OIL	No
7	BELL CANYON	-1836	5450	5450		NATURAL GAS,OIL	No
8	CHERRY CANYON	-2686	6300	6300		NATURAL GAS,OIL	No
9	BRUSHY CANYON	-4116	7730	7730		NATURAL GAS,OIL	No
10	BONE SPRING	-5256	8870	8870		NATURAL GAS,OIL	No
11	AVALON SAND	-5416	9030	9030		NATURAL GAS,OIL	No
12	BONE SPRING 1ST	-6386	10000	10000		NATURAL GAS,OIL	No
13	BONE SPRING 2ND	-6976	10590	10590		NATURAL GAS,OIL	Yes
14	BONE SPRING LIME	-7436	11050	11050		NATURAL GAS,OIL	No
15	BONE SPRING 3RD	-7946	11560	11560		NATURAL GAS,OIL	No
16	WOLFCAMP	-8271	11885	11885		NATURAL GAS,OIL	No

Section 2 - Blowout Prevention

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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_207H_Choke_Manifold_20181113072031.pdf

BOP Diagram Attachment:

BLUS_207H_Cactus_10K_BOP_Choke_5K_annular_20181113072112.pdf

BLUS_207H_FlexHose_Data_20190114152353.pdf

BLUS_207H__Wellhead_Diagram_20190117112908.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1350	0	1350			1350	J-55	54.5	STC	1.8	4.3	DRY	7	DRY	11.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5200	0	5200			5200	HCP-110	40	LTC	1.8	3.3	DRY	6.1	DRY	6.1
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18744	0	10862			18744	P-110	20	OTHER - GBCD	2.2	2.5	DRY	2.5	DRY	3

Casing Attachments

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_207H_Csg_Assumptions_Rev1_20190117113251.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_207H_Csg_Assumptions_Rev1_20190117113319.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLUS_207H_GBCD_5.5in_Connection_Spec_Sheet_20181113073214.pdf

BLUS_207H_Csg_Assumptions_Rev1_20190117113341.pdf

Section 4 - Cement

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	1053	1.34	14.8	1406	50	Premium C	Accelerator
INTERMEDIATE	Lead		0	5200	940	2.45	12.6	2300	75	Premium C	Extender
INTERMEDIATE	Tail		0	5200	410	1.34	14.8	547	75	Premium C	Accelerator
PRODUCTION	Lead		4500	18744	1965	1.91	13.2	3750	15	Premium H	Retarder

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	18744	OTHER : Cut Brine	8.7	8.9							
1350	5200	OTHER : Brine	8.7	8.9							
0	1350	OTHER : Fresh Water	8.4	9							

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

Section 6 - Test, Logging, Coring

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

Top of cement on production casing will be determined by calculation.

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

GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4910 **Anticipated Surface Pressure:** 2520.36

Anticipated Bottom Hole Temperature(F): 191

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_207H_H2S_Contingency_Plan_20181113131525.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Bell_Lake_Unit_South_207H___Well_Plan_v1_20181113131654.pdf

Other proposed operations facets description:

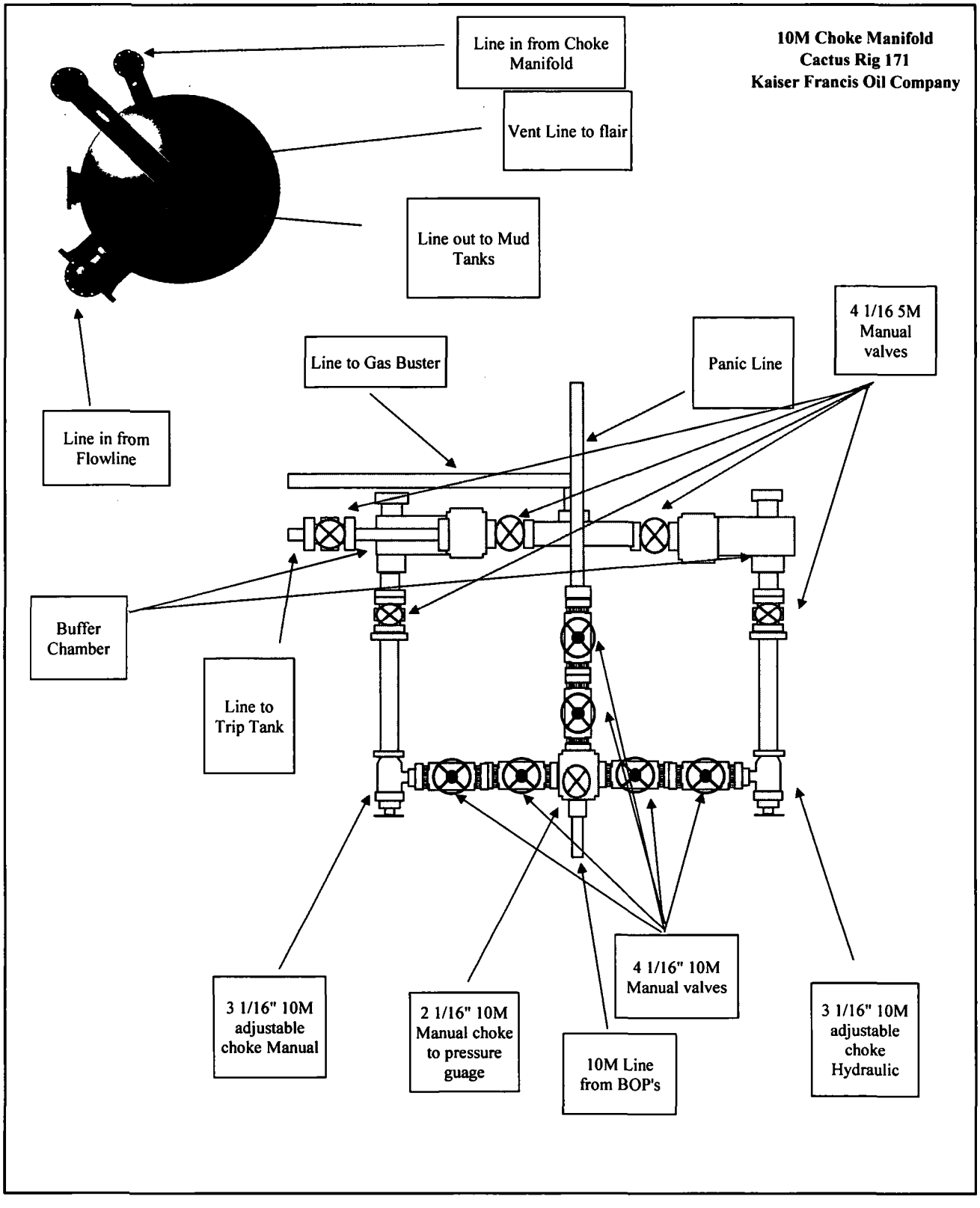
Gas Capture Plan attached

Other proposed operations facets attachment:

BLUS_207H_Gas_Capture_Plan_20181113131710.pdf

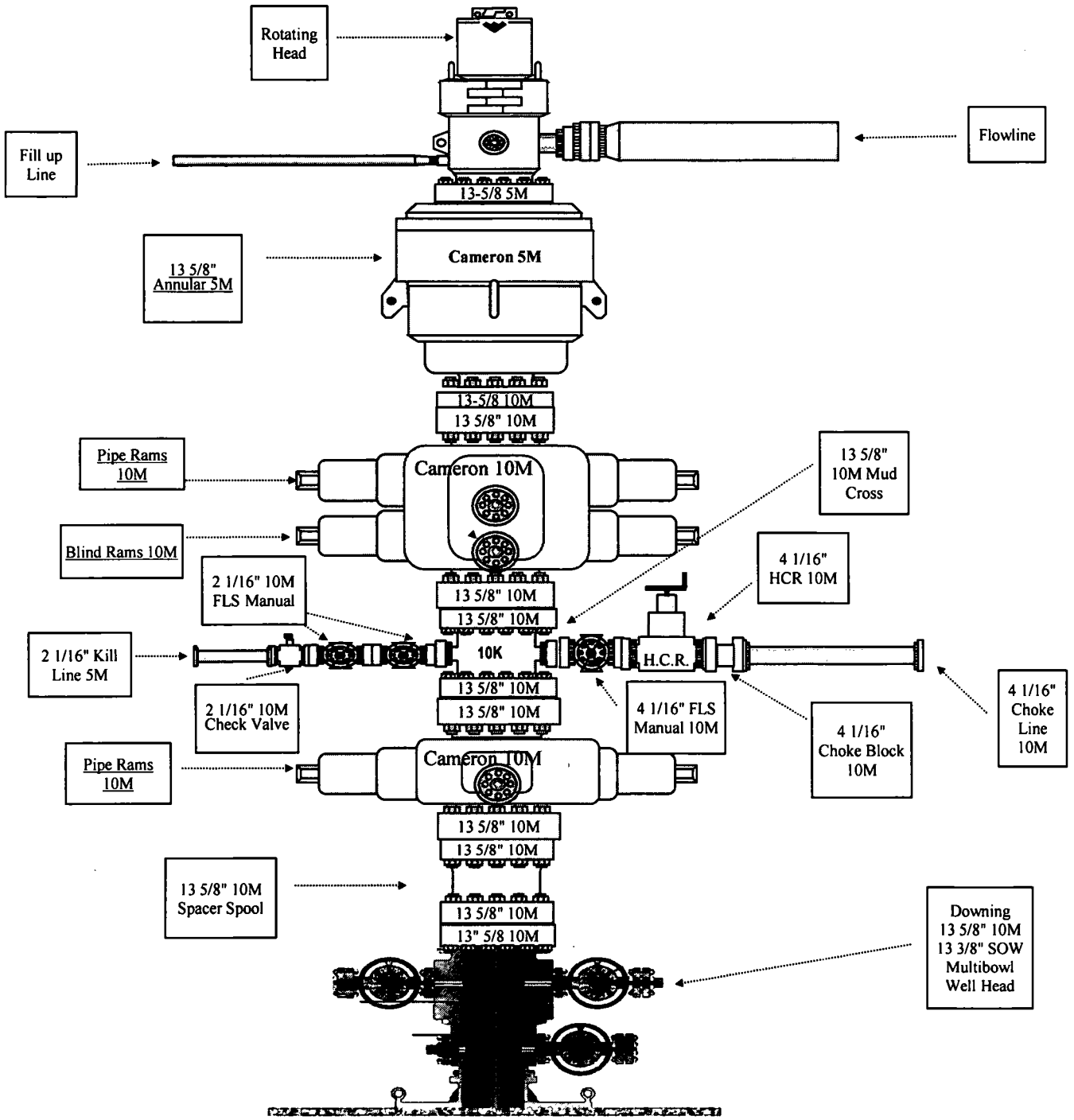
Other Variance attachment:

10M Choke Manifold
Cactus Rig 171
Kaiser Francis Oil Company



Cactus Rig 171
10M BOP with 5M Annular
Kaiser Francis Oil Company

Hole Sections Utilized
***12 1/4" Hole below Surface Casing**
***8 3/4"-8 1/2" Hole below Intermediate casing**



GATES E & S NORTH AMERICA, INC.
7603 Prairie Oak Dr.
Houston, TX 77086

PHONE: 281-602-4119
FAX:
EMAIL: Troy.Schmidt@gat
WEB: www.gates.com

10K ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	10/3/2017
Customer Ref. :	4086301	Hose Serial No.:	H-100317-2
Invoice No. :	508588	Created By:	Irene Pizana

Product Description:	10K3.035.0CM4.1/16FLGE/E

End Fitting 1 :	4 -1/16 10K FLANGE - FIXED	End Fitting 2 :	4 -1/16 10K FLANGE - FLOATING
Gates Part No. :	68603010-9710398	Assembly Code :	L39789092117H-100317-2
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Section 9.7.7 and Table 10 of API 7K, Sixth Edition (December 2015).

Quality:	QUALITY	Produciton:	PRODUCTION
Date :	10/3/2017	Date :	10/3/2017
Signature :		Signature :	

Form PTC - 01 Rev.0 2

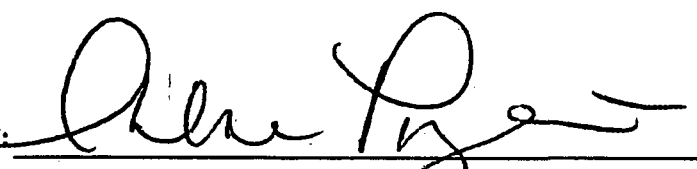
POWERING PROGRESS™

Gates E&S North America, Inc.
7603 Prairie Oak Dr.
Houston, TX. 77086
PHONE :
FAX:
Troy.Schmidt@gates.com

CERTIFICATE OF CONFORMANCE

This is to verify that all Parts and/or Materials included in this shipment have been manufactured and/or processed in Conformance with applicable drawings and specifications, and that Records of Required Tests are on file and subject to examination. The following items were assembled at **Gates E & S, North America Inc.**, facilities in Houston, TX, USA. This hose assembly was designed and manufactured to meet requirements of API Spec 7K.

CUSTOMER: A-7 AUSTIN INC DBA AUSTIN HOSE
CUSTOMERS P.O.#: 4086301
PART DESCRIPTION: 10K3.035.0CM4.1/16FLGE/E
SALES ORDER #: 508588
QUANTITY: 1
SERIAL #: H-100317-2

SIGNATURE: 

TITLE: QUALITY ASSURANCE

DATE: 10/3/2017

JOB REPORT

COMPANY DETAILS

Company: Austin
Contact:
Phone:

Email: Irene.pizana@gates.com

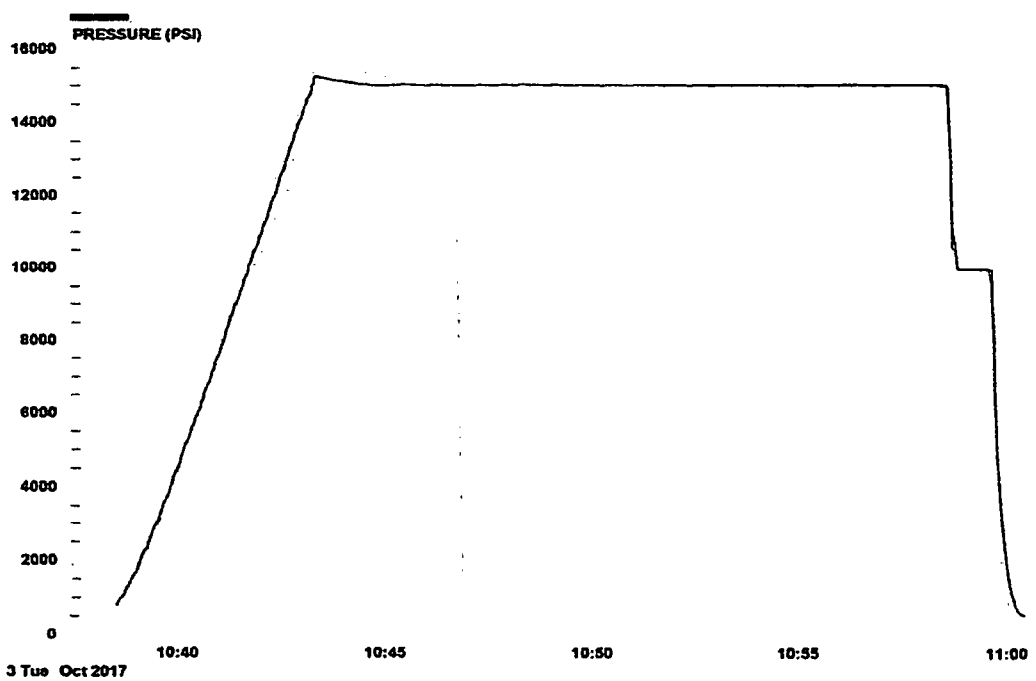
JOB DETAILS

DATE October 03, 2017
START TIME 10:38:29
END TIME 11:00:25
Gates Rep: Chris Olivo
Recommendation: H-100317-2
Working Pressure: 10000
Ext Inspection: Pass
Fitting Inspection: Pass
Test pressure: 15000
Serial No: H-100317-2

Length: 35'
Inner Diameter: 3.0"
Pressure Test: Pass
Internal Inspection: N/A
Fitting Type: 10K Flange ExE

GATES ENGINEERING & SERVICES NA
QA/QC
OCT 03 2017
APPROVED

SUMMARY GRAPH



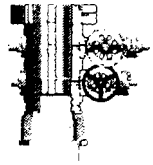
Report Created: 3-Oct-17

CAMERON

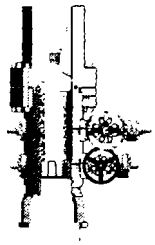
13-5/8" 10M MN-DS Wellhead System
Installation Sequence

Kaiser-Francis Oil Company

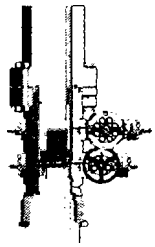
Step 1
- Install 13-5/8"-10K MD-DS housing (13" capping flange will be pre-installed).
- Weld and test to 500 psi.



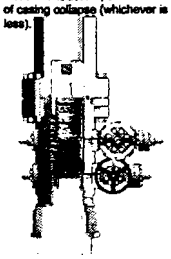
Step 2
- Run the 13-5/8" long wear bushing to protect all sealing areas in housing.
- Drill 12.25" surface hole.
- Retrieve the 13-5/8" long wear bushing before running casing.



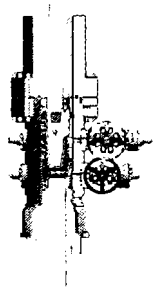
Step 3
- Hang off 9-5/8" casing on mandrel hanger and verify that it is landed via annular outlet valve.
- Run the 13" wash tool.



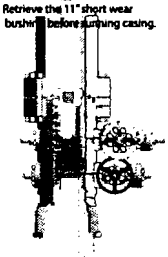
Step 4
- Install the 13-5/8" x 9-5/8" pack-off assembly with joint of drill pipe made up under running tool for weighted assistance.
- Perform 20K over pull to verify lock ring engagement.
- Test seals to 5,000 psi or 80% of casing collapse (whichever is less).



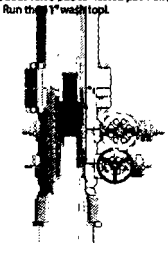
Step 5
- Make up 11" test plug to drill pipe joint and check OD seals for damage, replacing as needed. Land in pack-off assembly, verifying it has landed properly and perform BOP pressure test.



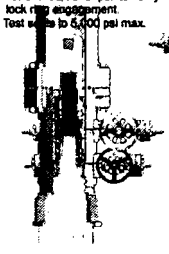
Step 6
- Make up 11" wear bushing running tool to drill pipe. Make up short wear bushing into running tool and check seals for damage, replacing as needed. Land short wear bushing in pack off assembly.
- Drill 8.75" intermediate hole.
- Retrieve the 11" short wear bushing before running casing.



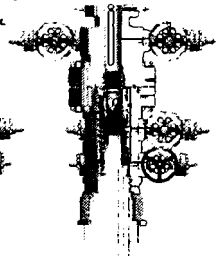
Step 7
- Hang 5-1/2" casing on mandrel Use RKB measurements to verify hanger is landed properly (not able to visually verify landed via annular outlet valve due to nested pack-off).
- Run the 11" wash tool.



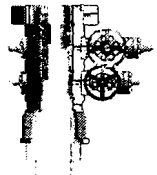
Step 8
- Install the pack-off assembly with joint of drill pipe made up under running tool for weighted assistance.
- Perform 50K over pull to verify lock ring engagement.
- Test seals to 5,000 psi max.

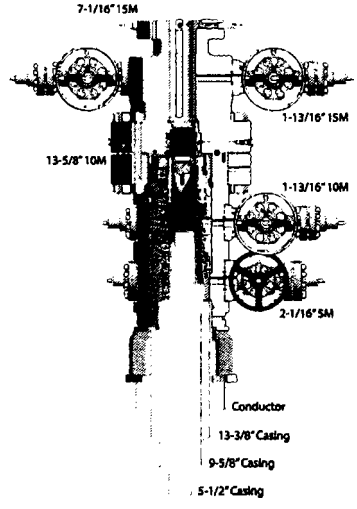


Step 11
- Install 13-5/8"-5K x 7-1/16"-15K tubing spool



Emergency Slips
- Emergency slips for 9-5/8" (casing slips and pack-off) and 5-1/2" casing (casing slips and no pack-off).





2018-089-01
Rev: 01

Kaiser Francis Oil Company
Bell Lake Unit South 207H
Casing Assumptions

Interval	Length	Casing Size	Weight (#/ft)	Grade	Thread	Condition	Hole Size	TVD (ft)
Conductor	120'	20"				New		120
Surface	1350'	13-5/8"	54.5	J-55	STC	New	17-1/2"	1350
Intermediate	5200'	9-5/8"	40	HCP-110	LTC	New	12-1/4"	5200
Production	18744	5-1/2"	20	P110	BTC	New	8-3/4"	10862

Mud Type	Mud Weight Hole Control	Viscosity	Fluid Loss
FW	8.4 - 9.0	32 - 34	NC
Brine	8.7-8.9	28	NC
Cut Brine	8.7 - 8.9	28-29	NC

Anticipated Mud Weight (ppg)	Max Pore Pressure (psi)	Collapse (psi)	Burst (psi)	Body Tensile Strength	Joint Tensile Strength
9	632	1130	2730	853000	514000
8.9	2407	4230	7900	1260000	1266000
8.9	5027	11100	12640	641000	548000

Collapse Safety Factor (Min 1.1)	Burst Safety Factor (Min 1.0)	Body Tensile Safety Factor	Joint Tensile Safety Factor
1.8	4.3	11.6	7.0
1.8	3.3	6.1	6.1
2.2	2.5	3.0	2.5

GB tubulars
Casings & Connections

GB Connection Performance Properties Sheet

Rev. 3 (08/25/2015)

ENGINEERING THE RIGHT CONNECTIONS™

Casing: 5.5 OD, 20 ppf
Casing Grade: P-110

Connection: GB CD Butt 6.050
Coupling Grade: API P-110

PIPE BODY GEOMETRY					
Nominal OD (in.)	5 1/2	Wall Thickness (in.)	0.361	Drift Diameter (in.)	4.653
Nominal Weight (ppf)	20.00	Nominal ID (in.)	4.778	API Alternate Drift Dia. (in.)	N/A
Plain End Weight (ppf)	19.83	Plain End Area (in.^{2})	5.828		

PIPE BODY PERFORMANCE					
Material Specification	P-110	Min. Yield Str. (psi)	110,000	Min. Ultimate Str. (psi)	125,000
Collapse		**Tension**		**Pressure**	
API (psi)	11,100	Pl. End Yield Str. (kips)	641	Min. Int. Yield Press. (psi)	12,640
High Collapse (psi)	N/A	**Torque**		**Bending**	
		Yield Torque (ft-lbs)	74,420	Build Rate to Yield (°/100 ft)	91.7

GB CD Butt 6.050 COUPLING GEOMETRY			
Coupling OD (in.)	6.050	Makeup Loss (in.)	4.2500
Coupling Length (in.)	8.500	Critical Cross-Sect. (in.^{2})	6.102

GB CD Butt 6.050 CONNECTION PERFORMANCE RATINGS/EFFICIENCIES					
Material Specification	API P-110	Min. Yield Str. (psi)	110,000	Min. Ultimate Str. (psi)	125,000
Tension		**Efficiency**		**Bending**	
Thread Str. (kips)	667	Internal Pressure (%)	98%	Build Rate to Yield (°/100 ft)	83.3
Min. Tension Yield (kips)	638	External Pressure (%)	100%	**Yield Torque**	
Min. Tension Ult. (kips)	725	Tension (%)	100%	Yield Torque (ft-lbs)	31,180
Joint Str. (kips)	667	Compression (%)	100%		
		Ratio of Areas (Cplg/Pipe)	1.05		

MAKEUP TORQUE					
Min. MU Tq. (ft-lbs)	10,000	Max. MU Tq. (ft-lbs)	20,000	Running Tq. (ft-lbs)	See GBT RP
				Max. Operating Tq. (ft-lbs)*	29,620

Units: US Customary (lbm, in., °F, lbf)
1 kip = 1,000 lbs
* See Running Procedure for description and limitations.
See attached: Notes for GB Connection Performance Properties.
GBT Running Procedure (GBT RP): www.gbtubulars.com/pdf/RP-GB-DWC-Connections.pdf
Blanking Dimensions: www.gbtubulars.com/pdf/GB-DWC-Blanking-Dimensions.pdf
Connection yield torque rating based on physical testing or extrapolation therefrom

Kaiser-Francis Oil Company

Company: Kaiser-Francis
Site: Bell Lake Unit South 207, 208
Well: Bell Lake Unit South 207H
Project: Lea County, New Mexico (NAD 83)
Rig: Cactus 171

MS Directional

T G M

Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.41°

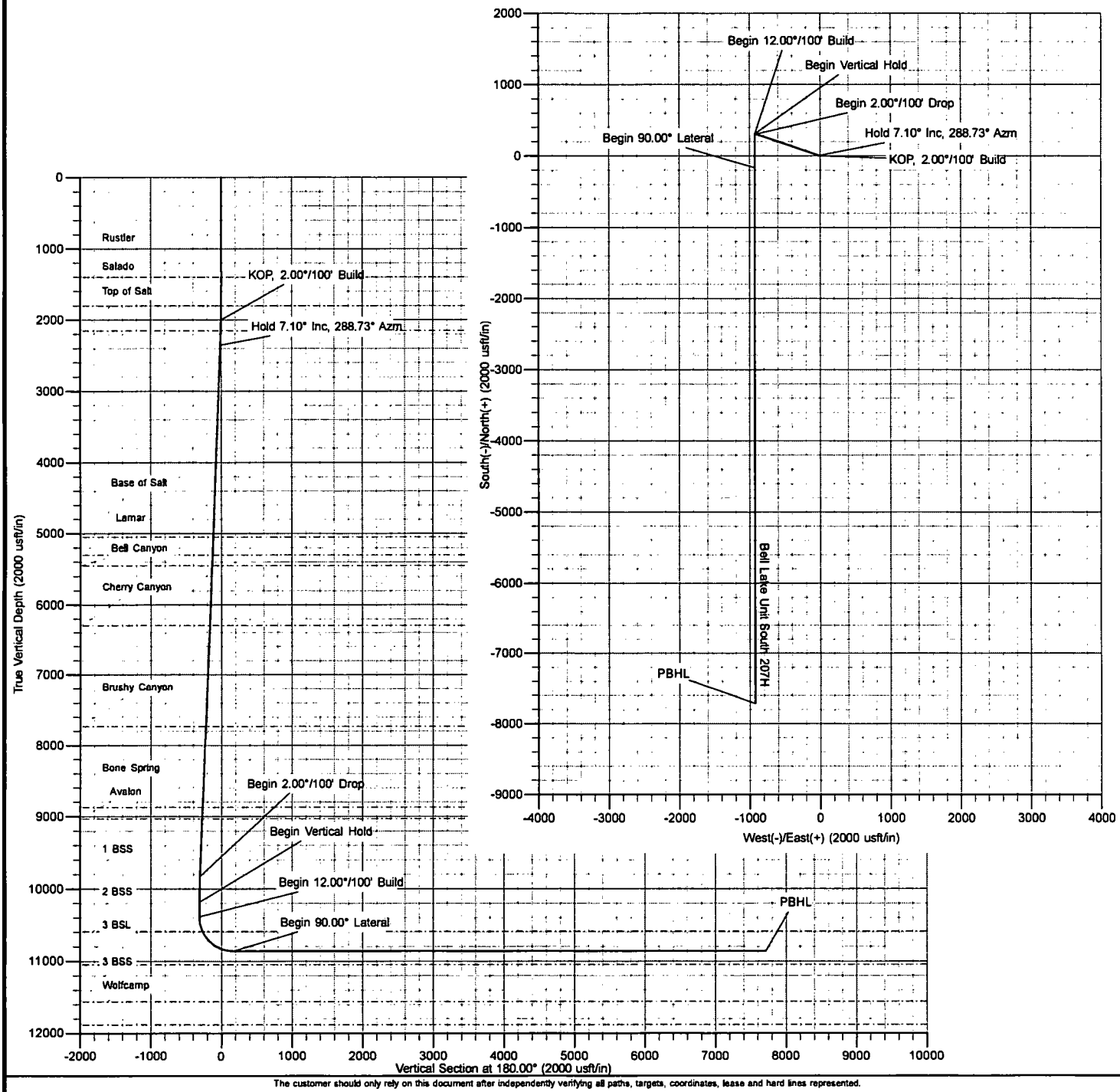
Magnetic Field
Strength: 47847.7nT
Dip Angle: 60.03°
Date: 11/20/2018
Model: BGGM2018

US State Plane 1983
New Mexico Eastern Zone

Created By: JA
Date: 14:48, 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
2355.01	7.10	288.73	2354.10	7.05	-20.81	-7.05	21.97	Hold 7.10° Inc, 288.73° Azm
9889.12	7.10	288.73	9830.44	306.03	-902.75	-306.03	953.22	Begin 2.00°/100' Drop
10244.13	0.00	0.00	10184.54	313.08	-923.56	-313.08	975.18	Begin Vertical Hold
10444.13	0.00	0.00	10384.54	313.08	-923.56	-313.08	975.18	Begin 12.00°/100' Build
11194.13	90.00	180.00	10862.00	-164.38	-923.58	164.38	1452.65	Begin 90.00° Lateral
18744.24	90.00	180.00	10862.00	-7714.49	-923.91	7714.49	9002.76	PBHL



Kaiser-Francis Oil Company

Kaiser-Francis

Lea County, New Mexico (NAD 83)
Bell Lake Unit South 207, 208
Bell Lake Unit South 207H

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 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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 207, 208				
Site Position:		**Northing:**	454,529.11 usft	**Latitude:**	32° 14' 48.892 N
From:	Map	**Easting:**	794,887.26 usft	**Longitude:**	103° 30' 47.542 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well	Bell Lake Unit South 207H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	454,529.11 usft	**Latitude:**	32° 14' 48.892 N
	+E/-W	0.00 usft	**Easting:**	794,887.26 usft	**Longitude:**	103° 30' 47.542 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,613.80 usft
Grid Convergence:		0.438 °				

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2018	11/20/2018	6.844	60.030	47,847.71

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	180.00	

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

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,744.24	Design #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	
2,355.01	7.10	288.73	2,354.10	7.05	-20.81	2.00	2.00	0.00	288.727	
9,889.12	7.10	288.73	9,830.44	306.03	-902.75	0.00	0.00	0.00	0.000	
10,244.13	0.00	0.00	10,184.54	313.08	-923.56	2.00	-2.00	0.00	180.000	VP BLUS 207
10,444.13	0.00	0.00	10,384.54	313.08	-923.56	0.00	0.00	0.00	0.000	
11,194.13	90.00	180.00	10,862.00	-164.38	-923.58	12.00	12.00	0.00	180.002	
18,744.24	90.00	180.00	10,862.00	-7,714.49	-923.91	0.00	0.00	0.00	0.000	PBHL BLUS 207

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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	288.73	2,099.98	0.56	-1.65	-0.56	2.00	2.00	0.00
2,150.07	3.00	288.73	2,150.00	1.26	-3.72	-1.26	2.00	2.00	0.00
Top of Salt									
2,200.00	4.00	288.73	2,199.84	2.24	-6.61	-2.24	2.00	2.00	0.00
2,300.00	6.00	288.73	2,299.45	5.04	-14.86	-5.04	2.00	2.00	0.00
2,355.01	7.10	288.73	2,354.10	7.05	-20.81	-7.05	2.00	2.00	0.00
Hold 7.10° Inc, 288.73° Azm									
2,400.00	7.10	288.73	2,398.75	8.84	-26.07	-8.84	0.00	0.00	0.00
2,500.00	7.10	288.73	2,497.98	12.81	-37.78	-12.81	0.00	0.00	0.00
2,600.00	7.10	288.73	2,597.21	16.78	-49.48	-16.78	0.00	0.00	0.00
2,700.00	7.10	288.73	2,696.45	20.74	-61.19	-20.74	0.00	0.00	0.00
2,800.00	7.10	288.73	2,795.68	24.71	-72.90	-24.71	0.00	0.00	0.00
2,900.00	7.10	288.73	2,894.91	28.68	-84.60	-28.68	0.00	0.00	0.00
3,000.00	7.10	288.73	2,994.15	32.65	-96.31	-32.65	0.00	0.00	0.00
3,100.00	7.10	288.73	3,093.38	36.62	-108.01	-36.62	0.00	0.00	0.00
3,200.00	7.10	288.73	3,192.61	40.59	-119.72	-40.59	0.00	0.00	0.00
3,300.00	7.10	288.73	3,291.85	44.55	-131.43	-44.55	0.00	0.00	0.00
3,400.00	7.10	288.73	3,391.08	48.52	-143.13	-48.52	0.00	0.00	0.00
3,500.00	7.10	288.73	3,490.31	52.49	-154.84	-52.49	0.00	0.00	0.00
3,600.00	7.10	288.73	3,589.55	56.46	-166.54	-56.46	0.00	0.00	0.00
3,700.00	7.10	288.73	3,688.78	60.43	-178.25	-60.43	0.00	0.00	0.00
3,800.00	7.10	288.73	3,788.01	64.40	-189.96	-64.40	0.00	0.00	0.00
3,900.00	7.10	288.73	3,887.24	68.36	-201.66	-68.36	0.00	0.00	0.00
4,000.00	7.10	288.73	3,986.48	72.33	-213.37	-72.33	0.00	0.00	0.00
4,100.00	7.10	288.73	4,085.71	76.30	-225.08	-76.30	0.00	0.00	0.00
4,200.00	7.10	288.73	4,184.94	80.27	-236.78	-80.27	0.00	0.00	0.00
4,300.00	7.10	288.73	4,284.18	84.24	-248.49	-84.24	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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)
4,400.00	7.10	288.73	4,383.41	88.21	-260.19	-88.21	0.00	0.00	0.00
4,500.00	7.10	288.73	4,482.64	92.17	-271.90	-92.17	0.00	0.00	0.00
4,600.00	7.10	288.73	4,581.88	96.14	-283.61	-96.14	0.00	0.00	0.00
4,700.00	7.10	288.73	4,681.11	100.11	-295.31	-100.11	0.00	0.00	0.00
4,800.00	7.10	288.73	4,780.34	104.08	-307.02	-104.08	0.00	0.00	0.00
4,900.00	7.10	288.73	4,879.58	108.05	-318.72	-108.05	0.00	0.00	0.00
5,000.00	7.10	288.73	4,978.81	112.02	-330.43	-112.02	0.00	0.00	0.00
5,071.74	7.10	288.73	5,050.00	114.86	-338.83	-114.86	0.00	0.00	0.00
Base of Salt									
5,100.00	7.10	288.73	5,078.04	115.98	-342.14	-115.98	0.00	0.00	0.00
5,200.00	7.10	288.73	5,177.28	119.95	-353.84	-119.95	0.00	0.00	0.00
5,300.00	7.10	288.73	5,276.51	123.92	-365.55	-123.92	0.00	0.00	0.00
5,323.67	7.10	288.73	5,300.00	124.86	-368.32	-124.86	0.00	0.00	0.00
Lamar									
5,400.00	7.10	288.73	5,375.74	127.89	-377.25	-127.89	0.00	0.00	0.00
5,474.83	7.10	288.73	5,450.00	130.86	-386.01	-130.86	0.00	0.00	0.00
Bell Canyon									
5,500.00	7.10	288.73	5,474.98	131.86	-388.96	-131.86	0.00	0.00	0.00
5,600.00	7.10	288.73	5,574.21	135.83	-400.67	-135.83	0.00	0.00	0.00
5,700.00	7.10	288.73	5,673.44	139.79	-412.37	-139.79	0.00	0.00	0.00
5,800.00	7.10	288.73	5,772.67	143.76	-424.08	-143.76	0.00	0.00	0.00
5,900.00	7.10	288.73	5,871.91	147.73	-435.78	-147.73	0.00	0.00	0.00
6,000.00	7.10	288.73	5,971.14	151.70	-447.49	-151.70	0.00	0.00	0.00
6,100.00	7.10	288.73	6,070.37	155.67	-459.20	-155.67	0.00	0.00	0.00
6,200.00	7.10	288.73	6,169.61	159.64	-470.90	-159.64	0.00	0.00	0.00
6,300.00	7.10	288.73	6,268.84	163.60	-482.61	-163.60	0.00	0.00	0.00
6,331.40	7.10	288.73	6,300.00	164.85	-486.28	-164.85	0.00	0.00	0.00
Cherry Canyon									
6,400.00	7.10	288.73	6,368.07	167.57	-494.31	-167.57	0.00	0.00	0.00
6,500.00	7.10	288.73	6,467.31	171.54	-506.02	-171.54	0.00	0.00	0.00
6,600.00	7.10	288.73	6,566.54	175.51	-517.73	-175.51	0.00	0.00	0.00
6,700.00	7.10	288.73	6,665.77	179.48	-529.43	-179.48	0.00	0.00	0.00
6,800.00	7.10	288.73	6,765.01	183.45	-541.14	-183.45	0.00	0.00	0.00
6,900.00	7.10	288.73	6,864.24	187.41	-552.85	-187.41	0.00	0.00	0.00
7,000.00	7.10	288.73	6,963.47	191.38	-564.55	-191.38	0.00	0.00	0.00
7,100.00	7.10	288.73	7,062.71	195.35	-576.26	-195.35	0.00	0.00	0.00
7,200.00	7.10	288.73	7,161.94	199.32	-587.96	-199.32	0.00	0.00	0.00
7,300.00	7.10	288.73	7,261.17	203.29	-599.67	-203.29	0.00	0.00	0.00
7,400.00	7.10	288.73	7,360.41	207.26	-611.38	-207.26	0.00	0.00	0.00
7,500.00	7.10	288.73	7,459.64	211.22	-623.08	-211.22	0.00	0.00	0.00
7,600.00	7.10	288.73	7,558.87	215.19	-634.79	-215.19	0.00	0.00	0.00
7,700.00	7.10	288.73	7,658.10	219.16	-646.49	-219.16	0.00	0.00	0.00
7,772.45	7.10	288.73	7,730.00	222.04	-654.97	-222.04	0.00	0.00	0.00
Brushy Canyon									
7,800.00	7.10	288.73	7,757.34	223.13	-658.20	-223.13	0.00	0.00	0.00
7,900.00	7.10	288.73	7,856.57	227.10	-669.91	-227.10	0.00	0.00	0.00
8,000.00	7.10	288.73	7,955.80	231.07	-681.61	-231.07	0.00	0.00	0.00
8,100.00	7.10	288.73	8,055.04	235.03	-693.32	-235.03	0.00	0.00	0.00
8,200.00	7.10	288.73	8,154.27	239.00	-705.02	-239.00	0.00	0.00	0.00
8,300.00	7.10	288.73	8,253.50	242.97	-716.73	-242.97	0.00	0.00	0.00
8,400.00	7.10	288.73	8,352.74	246.94	-728.44	-246.94	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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)
8,500.00	7.10	288.73	8,451.97	250.91	-740.14	-250.91	0.00	0.00	0.00
8,600.00	7.10	288.73	8,551.20	254.88	-751.85	-254.88	0.00	0.00	0.00
8,700.00	7.10	288.73	8,650.44	258.84	-763.55	-258.84	0.00	0.00	0.00
8,800.00	7.10	288.73	8,749.67	262.81	-775.26	-262.81	0.00	0.00	0.00
8,900.00	7.10	288.73	8,848.90	266.78	-786.97	-266.78	0.00	0.00	0.00
8,921.26	7.10	288.73	8,870.00	267.62	-789.46	-267.62	0.00	0.00	0.00
Bone Spring									
9,000.00	7.10	288.73	8,948.14	270.75	-798.67	-270.75	0.00	0.00	0.00
9,082.50	7.10	288.73	9,030.00	274.02	-808.33	-274.02	0.00	0.00	0.00
Avalon									
9,100.00	7.10	288.73	9,047.37	274.72	-810.38	-274.72	0.00	0.00	0.00
9,200.00	7.10	288.73	9,146.60	278.69	-822.08	-278.69	0.00	0.00	0.00
9,300.00	7.10	288.73	9,245.84	282.65	-833.79	-282.65	0.00	0.00	0.00
9,400.00	7.10	288.73	9,345.07	286.62	-845.50	-286.62	0.00	0.00	0.00
9,500.00	7.10	288.73	9,444.30	290.59	-857.20	-290.59	0.00	0.00	0.00
9,600.00	7.10	288.73	9,543.53	294.56	-868.91	-294.56	0.00	0.00	0.00
9,700.00	7.10	288.73	9,642.77	298.53	-880.61	-298.53	0.00	0.00	0.00
9,800.00	7.10	288.73	9,742.00	302.50	-892.32	-302.50	0.00	0.00	0.00
9,889.12	7.10	288.73	9,830.44	306.03	-902.75	-306.03	0.00	0.00	0.00
Begin 2.00°/100' Drop									
9,900.00	6.88	288.73	9,841.24	306.46	-904.01	-306.46	2.00	-2.00	0.00
10,000.00	4.88	288.73	9,940.71	309.75	-913.71	-309.75	2.00	-2.00	0.00
10,059.46	3.69	288.73	10,000.00	311.17	-917.92	-311.17	2.00	-2.00	0.00
1 BSS									
10,100.00	2.88	288.73	10,040.47	311.92	-920.13	-311.92	2.00	-2.00	0.00
10,200.00	0.88	288.73	10,140.41	312.98	-923.24	-312.98	2.00	-2.00	0.00
10,244.13	0.00	0.00	10,184.54	313.08	-923.56	-313.08	2.00	-2.00	0.00
Begin Vertical Hold - VP BLUS 207									
10,300.00	0.00	0.00	10,240.41	313.08	-923.56	-313.08	0.00	0.00	0.00
10,400.00	0.00	0.00	10,340.41	313.08	-923.56	-313.08	0.00	0.00	0.00
10,444.13	0.00	0.00	10,384.54	313.08	-923.56	-313.08	0.00	0.00	0.00
Begin 12.00°/100' Build									
10,450.00	0.70	180.00	10,390.41	313.05	-923.56	-313.05	12.00	12.00	0.00
10,475.00	3.70	180.00	10,415.39	312.09	-923.56	-312.09	12.00	12.00	0.00
10,500.00	6.70	180.00	10,440.28	309.82	-923.56	-309.82	12.00	12.00	0.00
10,525.00	9.70	180.00	10,465.02	306.25	-923.56	-306.25	12.00	12.00	0.00
10,550.00	12.70	180.00	10,489.54	301.39	-923.56	-301.39	12.00	12.00	0.00
10,575.00	15.70	180.00	10,513.78	295.26	-923.56	-295.26	12.00	12.00	0.00
10,600.00	18.70	180.00	10,537.66	287.87	-923.56	-287.87	12.00	12.00	0.00
10,625.00	21.70	180.00	10,561.11	279.23	-923.56	-279.23	12.00	12.00	0.00
10,650.00	24.70	180.00	10,584.09	269.38	-923.56	-269.38	12.00	12.00	0.00
10,656.53	25.49	180.00	10,590.00	266.62	-923.56	-266.62	12.00	12.00	0.00
2 BSS									
10,675.00	27.70	180.00	10,606.52	258.35	-923.56	-258.35	12.00	12.00	0.00
10,700.00	30.70	180.00	10,628.34	246.15	-923.56	-246.15	12.00	12.00	0.00
10,725.00	33.70	180.00	10,649.49	232.83	-923.56	-232.83	12.00	12.00	0.00
10,750.00	36.70	180.00	10,669.91	218.42	-923.56	-218.42	12.00	12.00	0.00
10,775.00	39.70	180.00	10,689.56	202.95	-923.56	-202.95	12.00	12.00	0.00
10,800.00	42.70	180.00	10,708.36	186.49	-923.56	-186.49	12.00	12.00	0.00
10,825.00	45.70	180.00	10,726.28	169.06	-923.57	-169.06	12.00	12.00	0.00
10,850.00	48.70	180.00	10,743.26	150.72	-923.57	-150.72	12.00	12.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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)
10,875.00	51.70	180.00	10,759.26	131.51	-923.57	-131.51	12.00	12.00	0.00
10,900.00	54.70	180.00	10,774.24	111.49	-923.57	-111.49	12.00	12.00	0.00
10,925.00	57.70	180.00	10,788.14	90.72	-923.57	-90.72	12.00	12.00	0.00
10,950.00	60.70	180.00	10,800.94	69.25	-923.57	-69.25	12.00	12.00	0.00
10,975.00	63.70	180.00	10,812.59	47.13	-923.57	-47.13	12.00	12.00	0.00
11,000.00	66.70	180.00	10,823.08	24.44	-923.57	-24.44	12.00	12.00	0.00
11,025.00	69.70	180.00	10,832.36	1.23	-923.57	-1.23	12.00	12.00	0.00
11,050.00	72.70	180.00	10,840.41	-22.43	-923.57	22.43	12.00	12.00	0.00
11,075.00	75.70	180.00	10,847.22	-46.49	-923.57	46.49	12.00	12.00	0.00
11,100.00	78.70	180.00	10,852.75	-70.86	-923.58	70.86	12.00	12.00	0.00
11,125.00	81.70	180.00	10,857.01	-95.50	-923.58	95.50	12.00	12.00	0.00
11,150.00	84.70	180.00	10,859.96	-120.32	-923.58	120.32	12.00	12.00	0.00
11,175.00	87.70	180.00	10,861.62	-145.26	-923.58	145.26	12.00	12.00	0.00
11,194.13	90.00	180.00	10,862.00	-164.38	-923.58	164.38	12.00	12.00	0.00
Begin 90.00° Lateral - FTP BLUS 207									
11,200.00	90.00	180.00	10,862.00	-170.25	-923.58	170.25	0.00	0.00	0.00
11,300.00	90.00	180.00	10,862.00	-270.25	-923.58	270.25	0.00	0.00	0.00
11,400.00	90.00	180.00	10,862.00	-370.25	-923.59	370.25	0.00	0.00	0.00
11,500.00	90.00	180.00	10,862.00	-470.25	-923.59	470.25	0.00	0.00	0.00
11,600.00	90.00	180.00	10,862.00	-570.25	-923.60	570.25	0.00	0.00	0.00
11,700.00	90.00	180.00	10,862.00	-670.25	-923.60	670.25	0.00	0.00	0.00
11,800.00	90.00	180.00	10,862.00	-770.25	-923.61	770.25	0.00	0.00	0.00
11,900.00	90.00	180.00	10,862.00	-870.25	-923.61	870.25	0.00	0.00	0.00
12,000.00	90.00	180.00	10,862.00	-970.25	-923.62	970.25	0.00	0.00	0.00
12,100.00	90.00	180.00	10,862.00	-1,070.25	-923.62	1,070.25	0.00	0.00	0.00
12,200.00	90.00	180.00	10,862.00	-1,170.25	-923.62	1,170.25	0.00	0.00	0.00
12,300.00	90.00	180.00	10,862.00	-1,270.25	-923.63	1,270.25	0.00	0.00	0.00
12,400.00	90.00	180.00	10,862.00	-1,370.25	-923.63	1,370.25	0.00	0.00	0.00
12,500.00	90.00	180.00	10,862.00	-1,470.25	-923.64	1,470.25	0.00	0.00	0.00
12,600.00	90.00	180.00	10,862.00	-1,570.25	-923.64	1,570.25	0.00	0.00	0.00
12,700.00	90.00	180.00	10,862.00	-1,670.25	-923.65	1,670.25	0.00	0.00	0.00
12,800.00	90.00	180.00	10,862.00	-1,770.25	-923.65	1,770.25	0.00	0.00	0.00
12,900.00	90.00	180.00	10,862.00	-1,870.25	-923.65	1,870.25	0.00	0.00	0.00
13,000.00	90.00	180.00	10,862.00	-1,970.25	-923.66	1,970.25	0.00	0.00	0.00
13,100.00	90.00	180.00	10,862.00	-2,070.25	-923.66	2,070.25	0.00	0.00	0.00
13,200.00	90.00	180.00	10,862.00	-2,170.25	-923.67	2,170.25	0.00	0.00	0.00
13,300.00	90.00	180.00	10,862.00	-2,270.25	-923.67	2,270.25	0.00	0.00	0.00
13,400.00	90.00	180.00	10,862.00	-2,370.25	-923.68	2,370.25	0.00	0.00	0.00
13,500.00	90.00	180.00	10,862.00	-2,470.25	-923.68	2,470.25	0.00	0.00	0.00
13,600.00	90.00	180.00	10,862.00	-2,570.25	-923.69	2,570.25	0.00	0.00	0.00
13,700.00	90.00	180.00	10,862.00	-2,670.25	-923.69	2,670.25	0.00	0.00	0.00
13,800.00	90.00	180.00	10,862.00	-2,770.25	-923.69	2,770.25	0.00	0.00	0.00
13,900.00	90.00	180.00	10,862.00	-2,870.25	-923.70	2,870.25	0.00	0.00	0.00
14,000.00	90.00	180.00	10,862.00	-2,970.25	-923.70	2,970.25	0.00	0.00	0.00
14,100.00	90.00	180.00	10,862.00	-3,070.25	-923.71	3,070.25	0.00	0.00	0.00
14,200.00	90.00	180.00	10,862.00	-3,170.25	-923.71	3,170.25	0.00	0.00	0.00
14,300.00	90.00	180.00	10,862.00	-3,270.25	-923.72	3,270.25	0.00	0.00	0.00
14,400.00	90.00	180.00	10,862.00	-3,370.25	-923.72	3,370.25	0.00	0.00	0.00
14,500.00	90.00	180.00	10,862.00	-3,470.25	-923.72	3,470.25	0.00	0.00	0.00
14,600.00	90.00	180.00	10,862.00	-3,570.25	-923.73	3,570.25	0.00	0.00	0.00
14,700.00	90.00	180.00	10,862.00	-3,670.25	-923.73	3,670.25	0.00	0.00	0.00
14,800.00	90.00	180.00	10,862.00	-3,770.25	-923.74	3,770.25	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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)
14,900.00	90.00	180.00	10,862.00	-3,870.25	-923.74	3,870.25	0.00	0.00	0.00
15,000.00	90.00	180.00	10,862.00	-3,970.25	-923.75	3,970.25	0.00	0.00	0.00
15,100.00	90.00	180.00	10,862.00	-4,070.25	-923.75	4,070.25	0.00	0.00	0.00
15,200.00	90.00	180.00	10,862.00	-4,170.25	-923.76	4,170.25	0.00	0.00	0.00
15,300.00	90.00	180.00	10,862.00	-4,270.25	-923.76	4,270.25	0.00	0.00	0.00
15,400.00	90.00	180.00	10,862.00	-4,370.25	-923.76	4,370.25	0.00	0.00	0.00
15,500.00	90.00	180.00	10,862.00	-4,470.25	-923.77	4,470.25	0.00	0.00	0.00
15,600.00	90.00	180.00	10,862.00	-4,570.25	-923.77	4,570.25	0.00	0.00	0.00
15,700.00	90.00	180.00	10,862.00	-4,670.25	-923.78	4,670.25	0.00	0.00	0.00
15,800.00	90.00	180.00	10,862.00	-4,770.25	-923.78	4,770.25	0.00	0.00	0.00
15,900.00	90.00	180.00	10,862.00	-4,870.25	-923.79	4,870.25	0.00	0.00	0.00
16,000.00	90.00	180.00	10,862.00	-4,970.25	-923.79	4,970.25	0.00	0.00	0.00
16,100.00	90.00	180.00	10,862.00	-5,070.25	-923.79	5,070.25	0.00	0.00	0.00
16,200.00	90.00	180.00	10,862.00	-5,170.25	-923.80	5,170.25	0.00	0.00	0.00
16,300.00	90.00	180.00	10,862.00	-5,270.25	-923.80	5,270.25	0.00	0.00	0.00
16,400.00	90.00	180.00	10,862.00	-5,370.25	-923.81	5,370.25	0.00	0.00	0.00
16,500.00	90.00	180.00	10,862.00	-5,470.25	-923.81	5,470.25	0.00	0.00	0.00
16,600.00	90.00	180.00	10,862.00	-5,570.25	-923.82	5,570.25	0.00	0.00	0.00
16,700.00	90.00	180.00	10,862.00	-5,670.25	-923.82	5,670.25	0.00	0.00	0.00
16,800.00	90.00	180.00	10,862.00	-5,770.25	-923.83	5,770.25	0.00	0.00	0.00
16,900.00	90.00	180.00	10,862.00	-5,870.25	-923.83	5,870.25	0.00	0.00	0.00
17,000.00	90.00	180.00	10,862.00	-5,970.25	-923.83	5,970.25	0.00	0.00	0.00
17,100.00	90.00	180.00	10,862.00	-6,070.25	-923.84	6,070.25	0.00	0.00	0.00
17,200.00	90.00	180.00	10,862.00	-6,170.25	-923.84	6,170.25	0.00	0.00	0.00
17,300.00	90.00	180.00	10,862.00	-6,270.25	-923.85	6,270.25	0.00	0.00	0.00
17,400.00	90.00	180.00	10,862.00	-6,370.25	-923.85	6,370.25	0.00	0.00	0.00
17,500.00	90.00	180.00	10,862.00	-6,470.25	-923.86	6,470.25	0.00	0.00	0.00
17,600.00	90.00	180.00	10,862.00	-6,570.25	-923.86	6,570.25	0.00	0.00	0.00
17,700.00	90.00	180.00	10,862.00	-6,670.25	-923.86	6,670.25	0.00	0.00	0.00
17,800.00	90.00	180.00	10,862.00	-6,770.25	-923.87	6,770.25	0.00	0.00	0.00
17,900.00	90.00	180.00	10,862.00	-6,870.25	-923.87	6,870.25	0.00	0.00	0.00
18,000.00	90.00	180.00	10,862.00	-6,970.25	-923.88	6,970.25	0.00	0.00	0.00
18,100.00	90.00	180.00	10,862.00	-7,070.25	-923.88	7,070.25	0.00	0.00	0.00
18,200.00	90.00	180.00	10,862.00	-7,170.25	-923.89	7,170.25	0.00	0.00	0.00
18,300.00	90.00	180.00	10,862.00	-7,270.25	-923.89	7,270.25	0.00	0.00	0.00
18,400.00	90.00	180.00	10,862.00	-7,370.25	-923.89	7,370.25	0.00	0.00	0.00
18,500.00	90.00	180.00	10,862.00	-7,470.25	-923.90	7,470.25	0.00	0.00	0.00
18,600.00	90.00	180.00	10,862.00	-7,570.25	-923.90	7,570.25	0.00	0.00	0.00
18,700.00	90.00	180.00	10,862.00	-7,670.25	-923.91	7,670.25	0.00	0.00	0.00
18,744.24	90.00	180.00	10,862.00	-7,714.49	-923.91	7,714.49	0.00	0.00	0.00
PBHL - PBHL BLUS 207									

Database:	EDM 5000.14 Conroe Db	**Local Co-ordinate Reference:**	Well Bell Lake Unit South 207H
Company:	Kaiser-Francis	**TVD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 83)	**MD Reference:**	22' KB + 3613.8 GL @ 3635.80usft (Cactus 171)
Site:	Bell Lake Unit South 207, 208	**North Reference:**	Grid
Well:	Bell Lake Unit South 207H	**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 BLUS 207 - plan hits target center - Point	0.00	0.00	10,184.54	313.08	-923.56	454,842.19	793,963.70	32° 14' 52.059 N	103° 30' 58.268 W
FTP BLUS 207 - plan hits target center - Point	0.00	0.00	10,862.00	-164.38	-923.58	454,364.73	793,963.68	32° 14' 47.335 N	103° 30' 58.310 W
PBHL BLUS 207 - plan hits target center - Point	0.00	0.00	10,862.00	-7,714.49	-923.91	446,814.62	793,963.35	32° 13' 32.626 N	103° 30' 58.983 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,400.00	1,400.00	Rustler		0.000	180.00
1,800.00	1,800.00	Salado		0.000	180.00
2,150.07	2,150.00	Top of Salt		0.000	180.00
5,071.74	5,050.00	Base of Salt		0.000	180.00
5,323.67	5,300.00	Lamar		0.000	180.00
5,474.83	5,450.00	Bell Canyon		0.000	180.00
6,331.40	6,300.00	Cherry Canyon		0.000	180.00
7,772.45	7,730.00	Brushy Canyon		0.000	180.00
8,921.26	8,870.00	Bone Spring		0.000	180.00
9,082.50	9,030.00	Avalon		0.000	180.00
10,059.46	10,000.00	1 BSS		0.000	180.00
10,656.53	10,590.00	2 BSS		0.000	180.00

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
2,355.01	2,354.10	7.05	-20.81	Hold 7.10° Inc, 288.73° Azm
9,889.12	9,830.44	306.03	-902.75	Begin 2.00°/100' Drop
10,244.13	10,184.54	313.08	-923.56	Begin Vertical Hold
10,444.13	10,384.54	313.08	-923.56	Begin 12.00°/100' Build
11,194.13	10,862.00	-164.38	-923.58	Begin 90.00° Lateral
18,744.24	10,862.00	-7,714.49	-923.91	PBHL

APD ID: 10400036233 **Submission Date:** 11/15/2018

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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_207H_Existing_Roads_20181113131742.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_207H_Access_Road_20181113131810.pdf

New road type: RESOURCE

Length: 119 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:

Access road engineering design? NO

Access road engineering design attachment:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BLUS_207H_1_Mile_Wells_Map_20181113132256.pdf

Existing Wells description:

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING **Water source type:** OTHER

Describe type: BRINE WATER

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

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 use type: OTHER, STIMULATION, SURFACE CASING **Water source type:** OTHER

Describe type: FRESH WATER

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: TRUCKING

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 and transportation map:

BLUS_207H_Water_Source_Map_20181113132655.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:**

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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

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:

Section 7 - Methods for Handling Waste

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

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:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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: 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

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

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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_207H_Well_Pad_Layout_20181113132811.pdf

BLUS_207H_Drilling_Layout_20181113132904.pdf

Comments:

Section 10 - Plans for Surface Reclamation

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

Multiple Well Pad Number: 6

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): 5.97

Road proposed disturbance (acres): 0.068297

Powerline proposed disturbance (acres): 0

Pipeline proposed disturbance (acres): 0

Other proposed disturbance (acres): 0

Total proposed disturbance: 6.038297

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): 5.97

Road long term disturbance (acres): 0.068297

Powerline long term disturbance (acres): 0

Pipeline long term disturbance (acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 6.038297

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.

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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:

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:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

PLS pounds per acre: **Proposed seeding season:**

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **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:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

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:**

Fee Owner: Mark T. McCloy & Annette E McCloy **Fee Owner Address:** PO Box 795 Tatum, NM 88267

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:

Operator Name: KAISER FRANCIS OIL COMPANY

Well Name: BELL LAKE UNIT SOUTH **Well Number:** 207H

Other Local Office:

USFS Region:

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

Section 12 - Other Information

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

ROW Type(s):

ROW Applications

SUPO Additional Information: SUP attached

Use a previously conducted onsite? NO

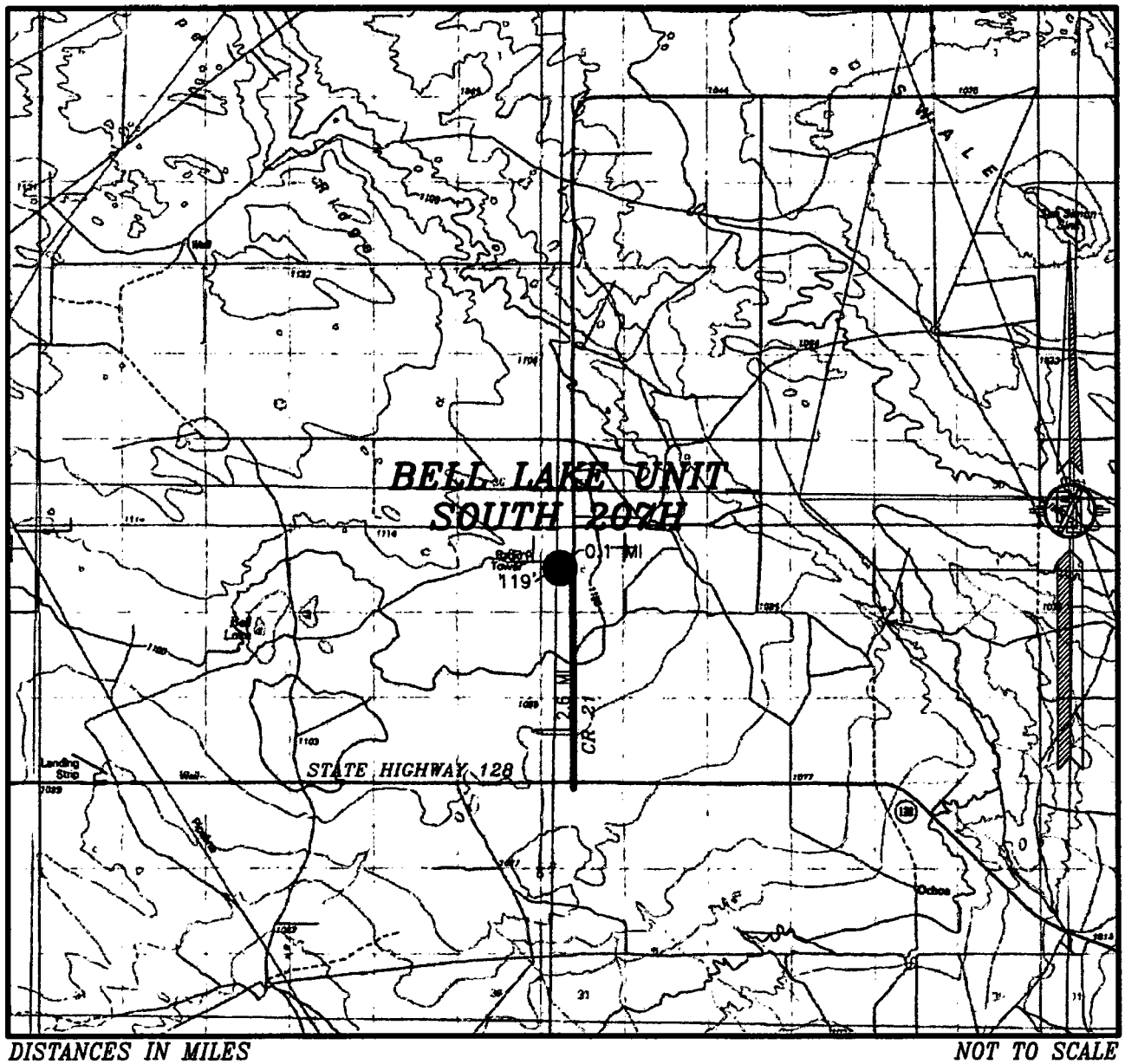
Previous Onsite information:

Other SUPO Attachment

BLUS_Pad_6_SPCC_Plan_20181113134637.pdf
BLUS_207H_SUP_20181113145337.pdf

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

VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION
FROM STATE HIGHWAY 128 AND CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 2.6 MILES, TURN LEFT ON BELL LAKE ROAD AND GO WEST 0.1 OF A MILE TO A ROAD SURVEY AND FOLLOW FLAGS SOUTH 119' TO THE NORTH EDGE OF PAD FOR THIS LOCATION.

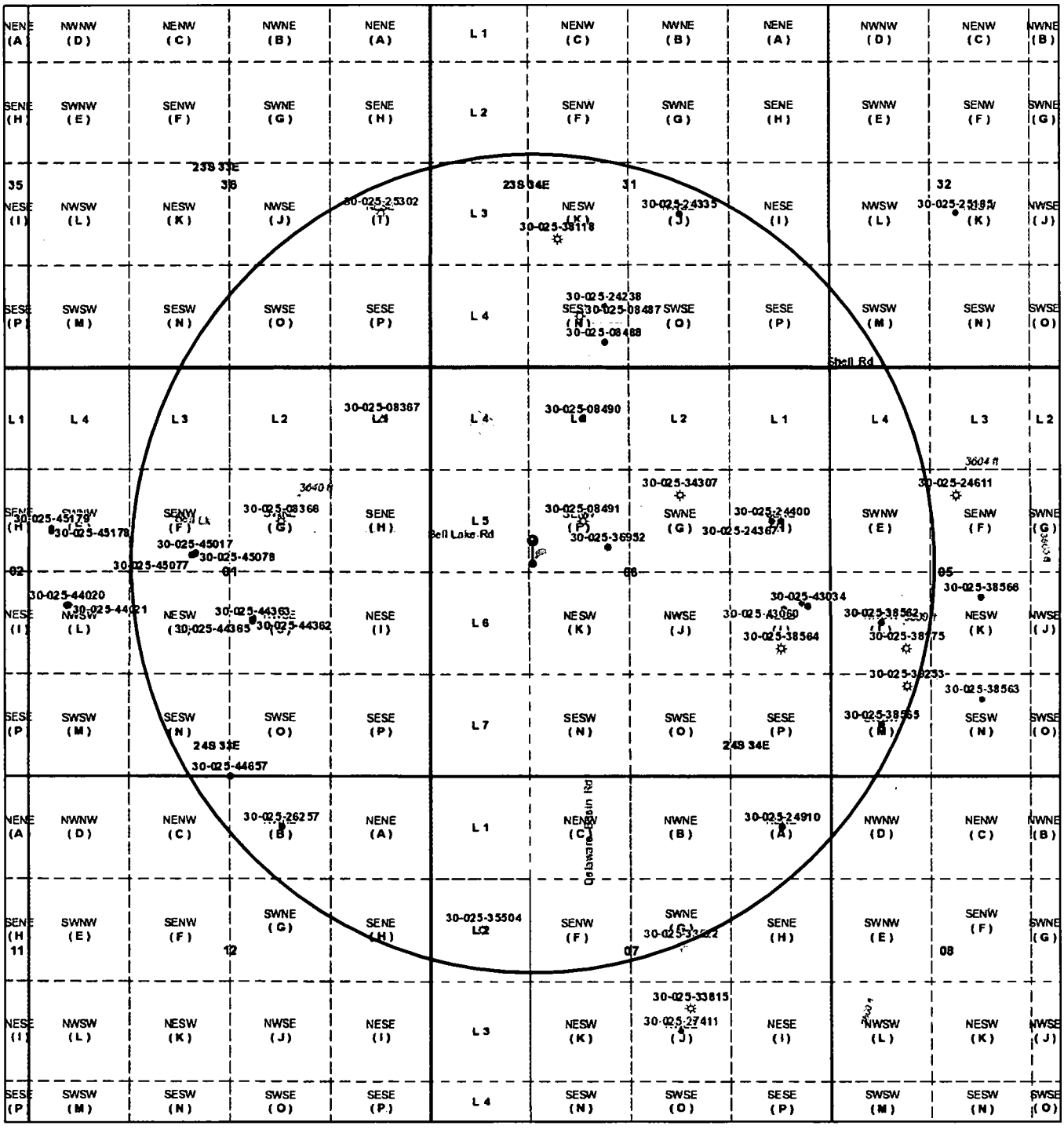
KAISER-FRANCIS OIL CO.
BELL LAKE UNIT SOUTH 207H
LOCATED 2520 FT. FROM THE NORTH LINE
AND 1335 FT. FROM THE WEST LINE OF
SECTION 6, TOWNSHIP 24 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JANUARY 28, 2018

SURVEY NO. 5933A

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

Bell Lake Unit South 207H



11/8/2018 1:46:37 PM

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abondoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water InjectionTemporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- PLSS First Division
- PLSS Second Division
- PLSS Townships

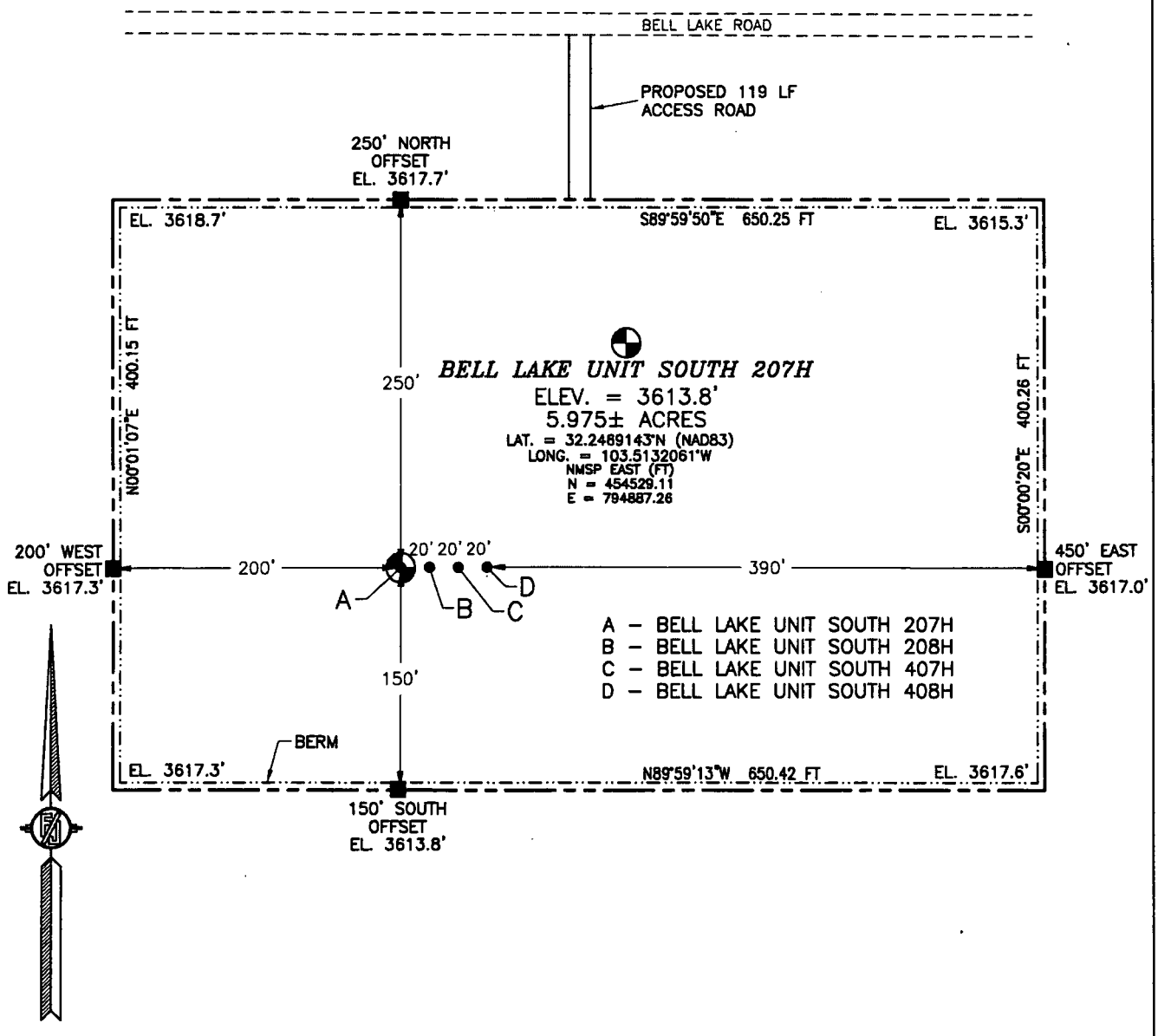
Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: New Mexico Oil Conservation Division

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.



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM STATE HIGHWAY 128 AND CR 21 (DELAWARE BASIN ROAD) GO NORTH ON CR 21 2.6 MILES, TURN LEFT ON BELL LAKE ROAD AND GO WEST 0.1 OF A MILE TO A ROAD SURVEY AND FOLLOW FLAGS SOUTH 119' TO THE NORTH EDGE OF PAD FOR THIS LOCATION.

KAISER–FRANCIS OIL CO.

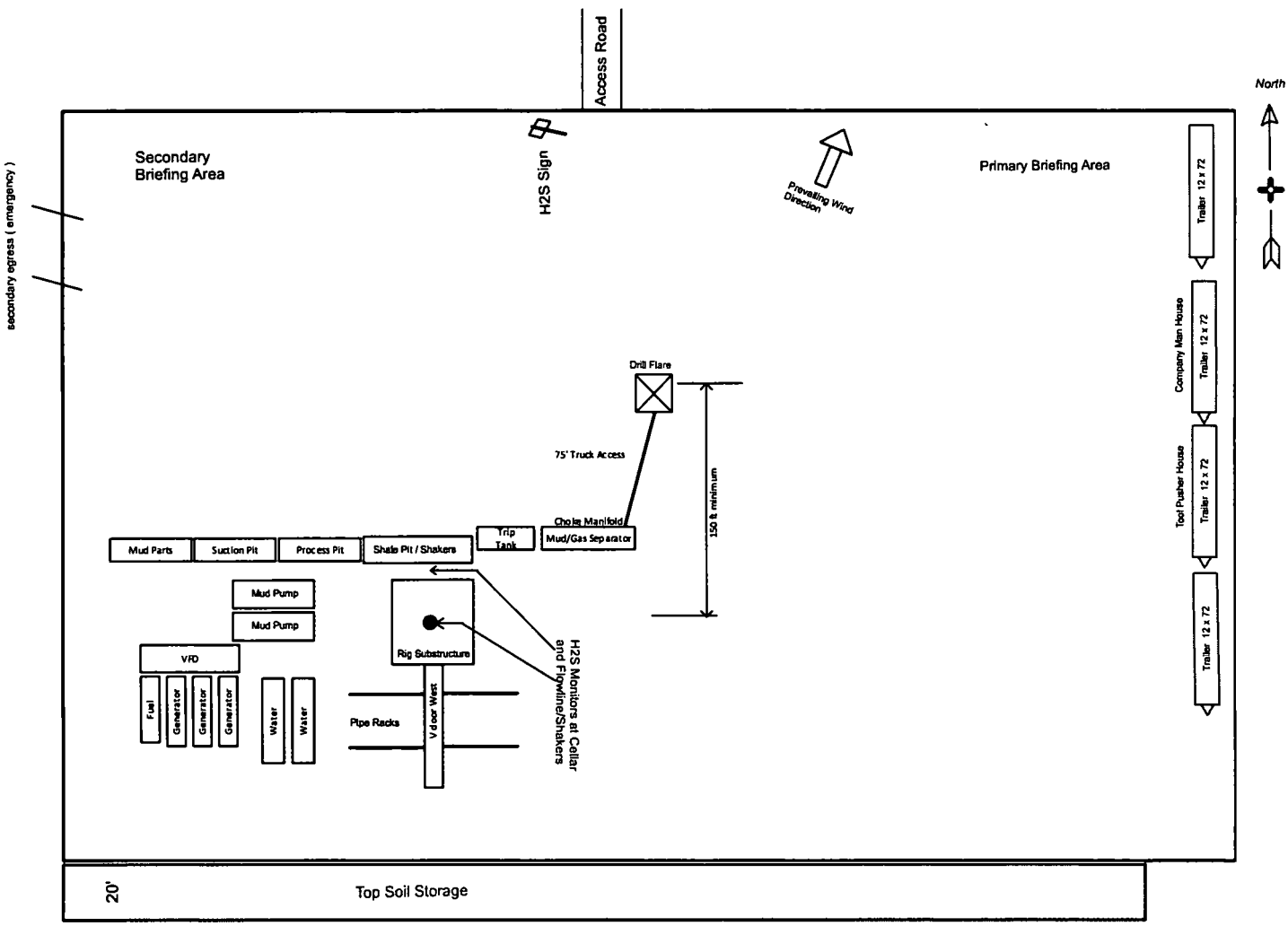
BELL LAKE UNIT SOUTH 207H

LOCATED 2520 FT. FROM THE NORTH LINE AND 1335 FT. FROM THE WEST LINE OF SECTION 6, TOWNSHIP 24 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

JANUARY 28, 2018

SURVEY NO. 5933A

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



400' x 650'

General Drill
Site Layout

Well: Bell Lake Unit South #207H

AFMSS

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

PWD Data Report
04/05/2019

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:

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

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?

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):

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

04/05/2019

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: