Form 3160-3
(June 2015)

OCD – HOBBS
11/18/2020
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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.
NMNM117126

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.

8. Lease Name and Well No.
JUDGE BAYLOR FED COM [329876]
701H

2. Name of Operator
FRANKLIN MOUNTAIN ENERGY LLC [373910]

9. API Well No. 30-025-48103

3a. Address
2401 E 2nd Avenue, Suite 300, Denver, CO 80206

3b. Phone No. *(include area code)*
(720) 414-7868

10. Field and Pool, or Exploratory [98228]
UPR WOLFCAMP [98187]/WC-025 G-09

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SWSW / 250 FSL / 523 FWL / LAT 32.08026 / LONG -103.328098
At proposed prod. zone SWSW / 150 FSL / 660 FWL / LAT 32.050938 / LONG -103.327637

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 36/T25S/R35E/NMP

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

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)
250 feet

16. No of acres in lease
1080

17. Spacing Unit dedicated to this well
320.0

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

19. Proposed Depth
12343 feet / 22863 feet

20. BLM/BIA Bond No. in file
FED: NMB001761

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3070 feet

22. Approximate date work will start*
09/01/2020

23. Estimated duration
30 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
(Electronic Submission)

Name *(Printed/Typed)*
JENNIFER SUMMERS / Ph: (720) 414-7868

Date
04/29/2020

Title
Field Technician

Approved by *(Signature)*
(Electronic Submission)

Name *(Printed/Typed)*
Cody Layton / Ph: (575) 234-5959

Date
10/09/2020

Title
Assistant Field Manager Lands & Minerals

Office
Carlsbad Field Office

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

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

GCP REC 11/18/2020

SL

APPROVED WITH CONDITIONS

KZ
12/01/2020

Approval Date: 10/09/2020

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM117126**
LOCATION:	Section 36, T.25 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Judge Baylor Fed Com 701H
SURFACE HOLE FOOTAGE:	250'/S & 523'/W
BOTTOM HOLE FOOTAGE	150'/S & 660'/W

WELL NAME & NO.:	Judge Baylor Fed Com 601H
SURFACE HOLE FOOTAGE:	250'/S & 488'/W
BOTTOM HOLE FOOTAGE	150'/S & 350'/W

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1150 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing shall be set at approximately **5400 feet** is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

    Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

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

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

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

C. PRESSURE CONTROL

1.

Option 1:

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

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing

shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

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

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

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

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

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

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

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

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

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

A. CASING

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

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

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

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

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

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

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

B. PRESSURE CONTROL

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

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

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

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

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

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

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

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

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

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

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

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

APD ID: 10400056296 **Submission Date:** 04/29/2020

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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

Highlighted data reflects the most recent changes

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Section 1 - General

APD ID: 10400056296 **Tie to previous NOS?** N **Submission Date:** 04/29/2020

BLM Office: CARLSBAD **User:** JENNIFER SUMMERS **Title:** Field Technician

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

Lease number: NMNM117126 **Lease Acres:** 1080

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

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO **APD Operator:** FRANKLIN MOUNTAIN ENERGY LLC

Operator letter of designation: 2018_Operator_Registration_Letter_for_Franklin_Mountain_Energy_20200427085433.doc

Operator Info

Operator Organization Name: FRANKLIN MOUNTAIN ENERGY LLC

Operator Address: 2401 E 2nd Avenue, Suite 300

Zip: 80206

Operator PO Box:

Operator City: Denver **State:** CO

Operator Phone: (720)414-7868

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: JUDGE BAYLOR FED COM **Well Number:** 701H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** UPR WOLFCAMP [98187] **Pool Name:** WC-025 G-09 S253502D;UPR WOLFCAMP

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

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** Paul Foster West **Number:** 2

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 35 FT **Distance to lease line:** 250 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: JUDGE_BAYLOR_FED_COM_701H_SHL_Sec_36_FME_Final_Plats_Rev_3_20200422124951.pdf

Well work start Date: 09/01/2020 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	250	FSL	523	FWL	25S	35E	36	Aliquot SWSW	32.08026	-103.328098	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3070	0	0	N
KOP Leg #1	250	FSL	523	FWL	25S	35E	36	Aliquot SWSW	32.08026	-103.328098	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 117126	-8589	11669	11659	N
PPP Leg #1-1	0	FNL	624	FWL	26S	35E	1	Aliquot NWNW	32.079573	-103.327771	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 117126	-9149	12435	12219	Y

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	118	FNL	672	FWL	26S	35E	1	Aliquot NWNW	32.079248	-103.327616	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 117126	-9162	12563	12232	Y
PPP Leg #1-3	0	FNL	666	FWL	26S	35E	12	Aliquot NWNW	32.065045	-103.327626	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 012280	-9217	17731	12287	Y
EXIT Leg #1	150	FSL	660	FWL	26S	35E	12	Aliquot SWSW	32.050938	-103.327637	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 012280	-9273	22863	12343	Y
BHL Leg #1	150	FSL	660	FWL	26S	35E	12	Aliquot SWSW	32.050938	-103.327637	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 012280	-9273	22863	12343	Y

APD ID: 10400056296 **Submission Date:** 04/29/2020

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
717905	UNKNOWN	3091	21	21	OTHER : Sand/Gravels/unconsolidated	NONE	N
717892	RUSTLER	2405	686	686	OTHER : Carbonates	NONE	N
717893	SALADO	2020	1071	1071	OTHER, SALT : salt, carbonate, clastics	NONE	N
717894	BASE OF SALT	-1497	4588	4588	SHALE	NONE	N
717895	LAMAR	-1932	5023	5023	OTHER : Carbonates and clastics	NONE	N
717896	BELL CANYON	-1966	5057	5057	SANDSTONE	NATURAL GAS, OIL	N
717897	CHERRY CANYON	-2833	5924	5924	SANDSTONE	NATURAL GAS, OIL	N
717898	BRUSHY CANYON	-4325	7416	7416	OTHER, SANDSTONE : carbonates, shale	NATURAL GAS, OIL	N
717899	BONE SPRING LIME	-5686	8777	8777	OTHER : shale, carbonates	NATURAL GAS, OIL	N
717900	AVALON SAND	-5710	8801	8801	OTHER : shale, carbonates	NATURAL GAS, OIL	N
717901	BONE SPRING 1ST	-6812	9903	9903	SANDSTONE	NATURAL GAS, OIL	N
717902	BONE SPRING 2ND	-6951	10042	10042	OTHER : shale, carbonates	NATURAL GAS, OIL	N
717903	BONE SPRING 3RD	-8036	11127	11127	OTHER : shale, carbonates	NATURAL GAS, OIL	N
717904	WOLFCAMP	-8949	12040	12040	OTHER : overpressure shale, sand	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

Pressure Rating (PSI): 10M **Rating Depth:** 18000

Equipment: Please see attachment titled FME BOP and Choke Manifold Diagram for Permits 10M

Requesting Variance? NO

Variance request:

Testing Procedure: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and 4 1/2" x 7" variable pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2. Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the second intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig. The second intermediate casing will be tested to 2000 psi for 30 minutes prior to drillout. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Choke Diagram Attachment:

FME_BOP_Diagram_for_Permits_10M_inc._with_well_control_20200819162505.pdf

BOP Diagram Attachment:

FME_BOPCM_Pg_2_20200427091108.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	1300	0	1300	3070	1770	1300	J-55	54.5	OTHER - BTC 909	1.67	1.18	BUOY	5.32	BUOY	4.99
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5400	0	5400	3070	-2330	5400	HCL-80	40	OTHER - BTC 1042	1.67	1.72	BUOY	3.3	BUOY	2.9
3	INTERMEDIATE	8.75	7.625	NEW	API	N	0	12050	0	12011	3070	-8941	12050	HCP-110	29.7	OTHER - Stinger 564	1.27	1.1	BUOY	1.23	BUOY	1.81
4	PRODUCTION	6.75	5.5	NEW	API	N	0	22863	0	12343	3070	-9273	22863	P-110	23	OTHER - Anaconda 656	1.36	1.32	BUOY	1.05	BUOY	1.16

Casing Attachments

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_VR_FME_SURFACE_20200420130409.docx

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_VR_FME_1ST_INTERMEDIATE_20200420130615.docx

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_VR_FME_2ND_INTERMEDIATE_20200429153705.docx

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

Casing Attachments

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_VR_FME_PRODUCTION_20200420131410.docx

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1000	804	1.72	13.5	1383		Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal	Bentonite, 2%CaCl2,0.25pps Cello-Flake
SURFACE	Tail		1000	1300	331	1.36	14.8	450		HalCem TM, 14.8 ppg, Class C,	2% CaCl2, 0.25pps Celo-Flake
INTERMEDIATE	Lead		0	5100	1256	2.27	11.5	2851		Neocem TM, 11.5 ppg, Class C 50:50 Poz	Gel, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal
INTERMEDIATE	Tail		5100	5400	152	1.35	14.8	205		HalCem TM, 14.8 ppg, Class C	0.25 pps Cello-Flake, 2% CalCl2
INTERMEDIATE	Lead		4400	11050	346	2.77	11	958		NeoCem, 11 ppg, Class C 2lb/sk Bridgemaker Gel, 5%	Salt, 5pps LCM, 0.25pps Cello-Flake
INTERMEDIATE	Tail		11050	12050	112	1.44	13.2	161		NeoCem 13.2 ppg, Class C	0.25 pps Cello-Flake, 2% CalCl2
PRODUCTION	Lead		11050	22863	545	2.16	14.5	1177		NeoCem, 14.5 ppg, Gas Migration Control	Gas Migration Control

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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: The highest mud weight needed to balance formation is expected to be 11-12 ppg. In order to maintain hole stability, mud weights up to 13.0 ppg may be utilized. Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.
Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

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
1300	12050	SALT SATURATED	8.8	10.2							
12050	22863	OIL-BASED MUD	11	12							
0	1300	LSND/GEL	8.6	8.8							

Section 6 - Test, Logging, Coring

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

None

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

GAMMA RAY LOG,COMPENSATED NEUTRON LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,CNL/FDC,
Coring operation description for the well:

None

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8343 **Anticipated Surface Pressure:** 5627

Anticipated Bottom Hole Temperature(F): 195

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:

Hydrogen_Sulfide_Drilling_Plan_20200420140024.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Franklin_Mountain___Judge_Baylor_Fed_Com_701H___Plan_2_20200420140405.pdf

Other proposed operations facets description:

Revised BOP info & diagram with 5M annular attached 8-19-2020

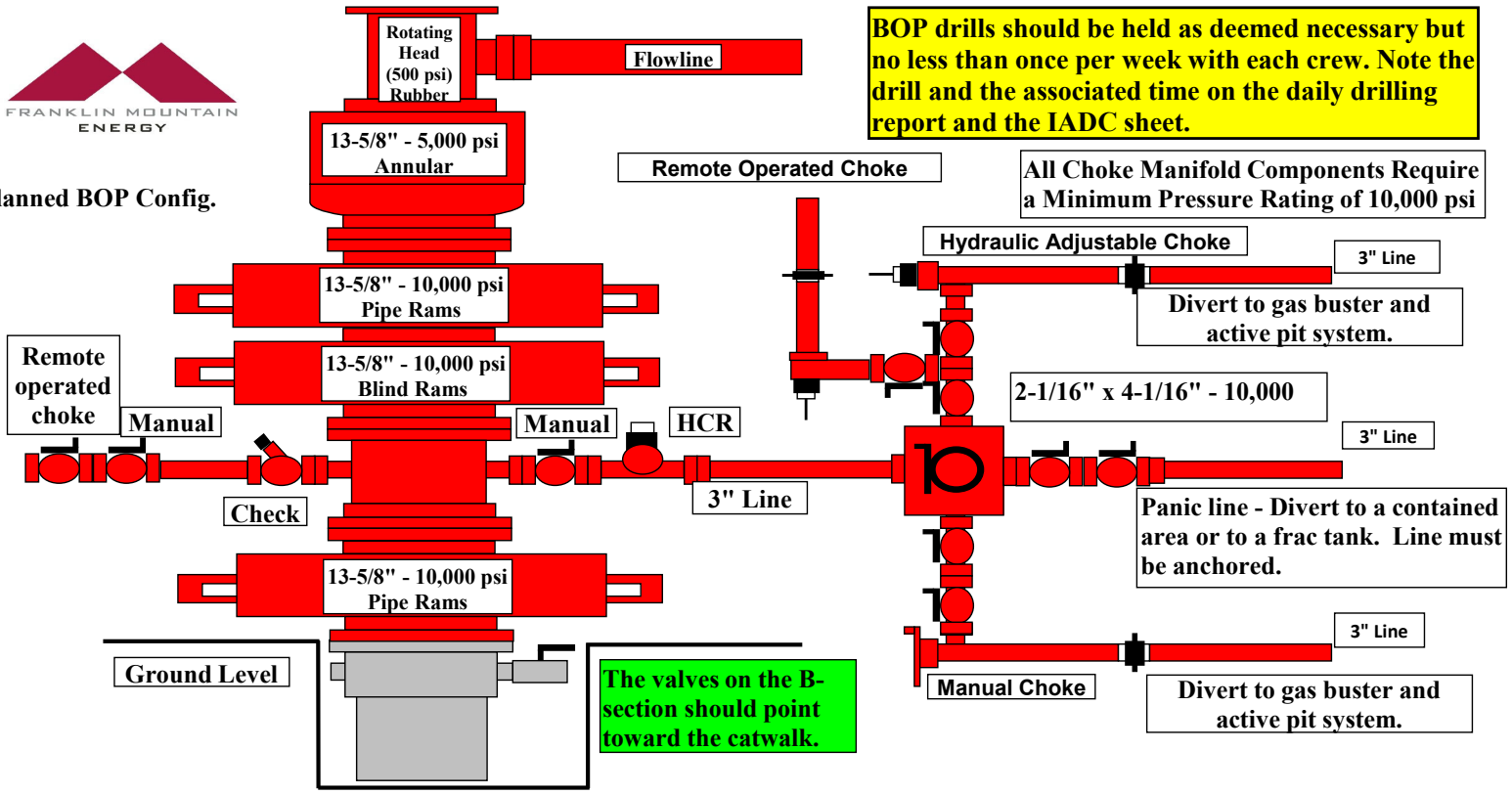
Other proposed operations facets attachment:

WBD_Judge_Baylor_701H_20200420140453.pdf
7.625_29.7lb_P_110_HC_Stinger_DATA_SHEET__002__20200420140632.pdf
5.5_23_P_110_MS2_Anaconda_SP_SF_Data_Sheet_20200420140633.pdf
Running_Procedure_Cactus_Wellhead_20200420140901.pdf
FME_Well_Control_Procedure_20200819162547.pdf
FME_Federal_14_Point_Plan_Judge_Baylor_701_updated_23_lbs_Anaconda_20200819162600.pdf

Other Variance attachment:

FRANKLIN MOUNTAIN ENERGY

Planned BOP Config.



Note - Actual BOP configuration subject to change given wellsite requirements.
Lower BOP outlet can be used in place of mud cross if necessary.
Choke manifold configuration may vary but must have 1 manual and 1 adjustable choke with at least a 10,000 psi rating.

BOP Description:

Use contractor's 13-5/8", 10K double BOP (drill pipe rams on top and blind rams on bottom), single 13-5/8", 10K pipe rams beneath the double and 13-5/8", 5K annular. RU 10K psi choke manifold equipped with one manual adjustable choke and one hydraulically adjustable choke. Kill line and choke line should be located below blind ram chamber. Install two (2) full opening gate valves and a check valve on the kill line with the gate valve nearest to the wellhead. The choke line shall be equipped with a manual full opening gate valve and an HCR valve. The manual valve should be open and the HCR valve should be closed during drilling operations. Chokes should be closed at all times as well. All lines should be flushed on a regular basis to avoid blockage (barite plugging). The pressure rating of the choke and kill lines and all valves should be equal to or greater than the BOP rams. RU contractor's accumulator system.

Test the accumulator system noting the initial pressure, final pressure and the amount of time required to close the various BOP components. Prior to drilling out, pressure test the casing and BOP equipment, using test plug, as follows and record test information on the daily report. Ensure casing head valves are open while testing BOPs. Test BOPs, choke manifold and lines, HCR, standpipe, mud line and all safety valves to 5,000 psig (high) and 250 psig (low) for 5 min. Test the annular to 5,000 psig (high) and 250 (low) for 5 minutes.

Drillpipe safety valves (TIW) should be full opening and have a rated working pressure of at least 5,000 psi. Safety valves for each size of drillpipe in use with the proper connection should be available on the rig floor in front of the drawworks at all times in the open position. Safety valves with the proper crossover should also be available if drill collars have a different connection than the drillpipe. IThe appropriate wrench for all manually operated valves should be marked and readily available on the rig floor at all times.

Ensurepressure guage on choke manifold is operational. All BOP connections subjected to well pressurewill be flanged, welded or clamped. All choke lines will be straight, turns will have tee blocks or targeted and shall be anchored.

Formations	PROG SS	PROG TVD
Cenozoic Alluvium (surface)	3070	21
Rustler	2405	686
Salado	2020	1071
Base Salt	-1497	4588
Lamar	-1932	5023
Bell Canyon	-1966	5057
Cherry Canyon	-2833	5924
Brushy Canyon	-4325	7416
Bone Spring Lime	-5686	8777
Avalon	-5710	8801
First Bone Spring Sand	-6812	9903
Second Bone Spring Carbonates	-6951	10042
Second Bone Spring Sand	-7336	10427
Third Bone Spring Carbonates	-8036	11127
Third Bone Spring Sand	-8707	11798
Wolfcamp	-8949	12040
Wolfcamp A	-9010	12101
HZ Target	**-9136**	**12227**
Wolfcamp B	-9230	12321

Well Name:	**Judge Baylor Fed Com 701H**
WBD Rev:	Pre-Drill
Rev Date:	3/20/2019
KB	25'

Surface Bit Size 17.5"
TOC 13-38" 0'
TOC 9-5/8" 0'

13-3/8"
54.4#
J-55
1,300'

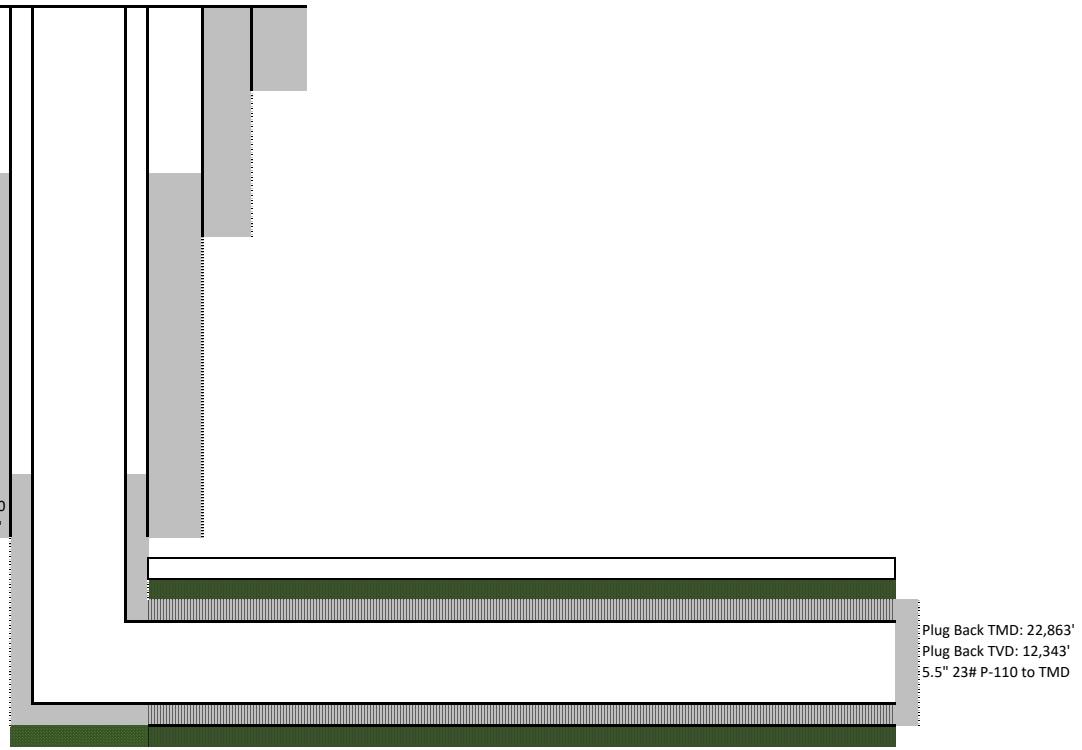
Int 1 Bit Size 12.25"
TOC 7" TBD

9-5/8"
40#
HCL-80
5,400'

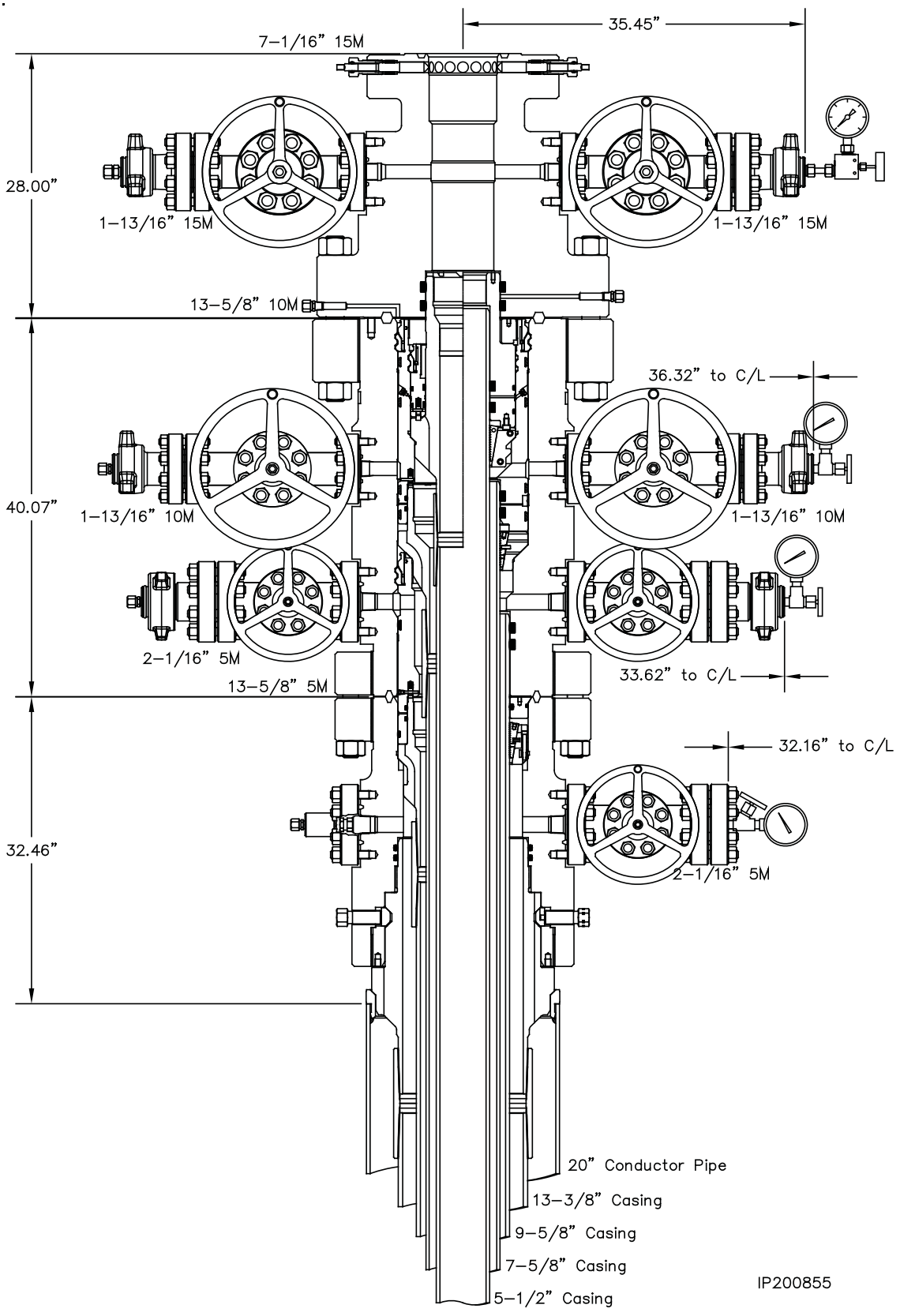
Int 2 Bit Size 8.75"
TOC 5.5" TBD

7-5/8"
29.7#
HCP-110
12,050'

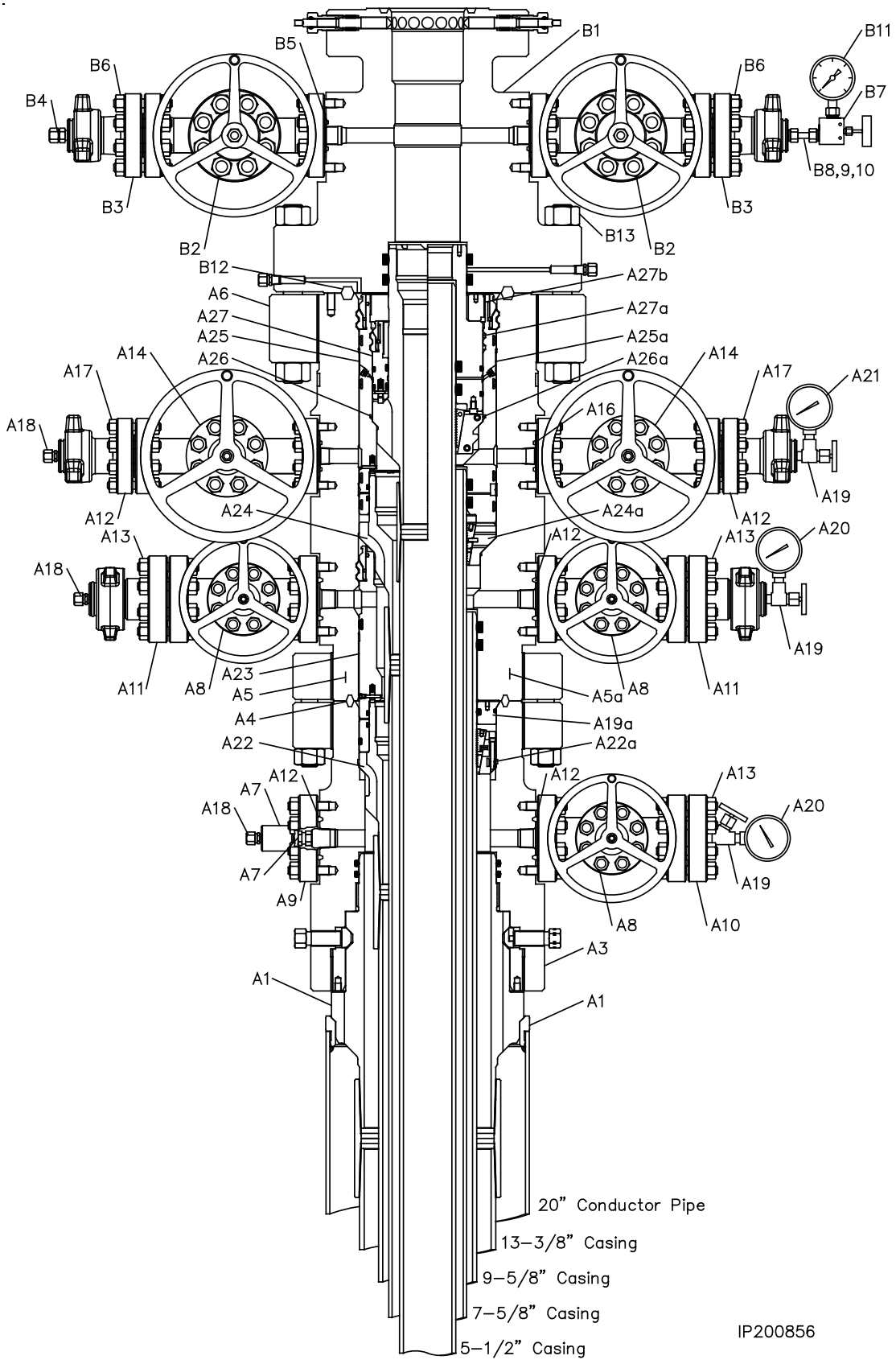
Prod Bit Size: 6.75"



System Drawing



Bill of Materials



Well Control Procedure

BOP & related components will be tested to required BLM specifications. Should a well-control situation arise, a contingency plan will be implemented. The plan is as follows.

Preparation:

- Sufficient kill mud volume will be prepared in the pre-mix tank prior to testing BOP components.
- Kill mud weight will be adequate to combat Maximum Anticipated Surface Pressure
- Choke manifold system is operable set up according to the BLM requirements and connected to the kill mud storage

Execution:

During any well control issues if the annular preventer should become inoperable or a wash out occurs

- well control will continue using the upper pipe rams in place of the annular preventer.
    - Close pipe rams
    - Pump kill mud to neutralize the well control situation
- Constantly monitor situation using choke manifold
- Use Kill lines of manifold if necessary

This additional well control procedure, as required by the BLM, is applicable to testing Annular Preventor to 100% of the rating.

Franklin Mountain Energy, LLC
Judge Baylor Fed Com 701H
Section 36, Township 26S, Range 35E
Lea County, NM

Surface Use Plan of Operations

Introduction:
The following Surface Use Plan of Operations (SUPO) will be Implemented by Franklin Mountain Energy, LLC (FME) after APD approval. No other disturbance will be created other than those described in this surface use plan. If any additional surface disturbance becomes necessary after APD approval, a BLM approved sundry notice or right of way application will be acquired prior to such disturbance.
Before any surface disturbance created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soil storage areas. As necessary, slope, grade and other construction control stakes will be placed to ensure construction in accordance with the service plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are displaced, they will be replaced before construction proceeds. Adjacent operators will be contacted prior to commencing construction to mark adjacent pipelines.
If terms and conditions are attached to the approved APD and amend any of the proposed actions in the services plan, FME will adhere to the terms and conditions.

Directions to proposed pad:
See attached Road Description plat.

Section 1 - Existing Roads:

a. The existing access road route to the proposed project is depicted on the attached Access Road Map. Improvements to the driving service will be done where necessary. No new service disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan.
b. Necessary Right-Of-Way will be acquired before construction begins.
c. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair potholes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.
d. Operator will prevent and abate fugitive dust as needed, weather created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on the roadways.

Section 2 – New or Reconstructed Access Roads:

a. A short access road will be needed for this proposed project. See the survey plat for the location of the access road.
b. The length of access road needed to be constructed for this project is about 3790.4 feet.

c. The maximum driving width of the access road will be 30 feet. The maximum width of the surface disturbance when constructing the new access road will not exceed 40 feet. All areas outside of the driving surface will be re-vegetated.
d. The access road will be constructed with 6 inches of compacted caliche.
e. When the road travels on fairly level ground the road will be crowned and ditched with a 2% slope from the tip of the road crown to the edge of the driving surface. The ditches will be 3 feet wide with 3:1 slopes.
f. The access road will be constructed with a ditch on each side of the road.
g. The maximum grade for the access road will be 1%.
h. No turnouts will be constructed on the proposed access road.
i. No cattle guards or fencing are needed for the construction of this proposed access road.
j. No BLM right away Grant is needed for the construction of this proposed access road.
k. No culverts will be constructed for this proposed access road.
l. No low-water crossings will be constructed for this proposed access road.
m. Since the access road is on level ground, no lead off ditches will be constructed for the proposed access road.
n. Newly constructed or reconstructed roads, on surface under the jurisdiction of the Bureau of Land Management (BLM), will be constructed as outlined in the BLM "Gold Book" and meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

Section 3 – Location of Existing Wells:

a. Attached Well Radius Map of the APD depicts all known wells within a 1 mile radius of the proposed well.

Section 4 – Location of Existing and/or Proposed Production Facilities:

a. The multiple well pad will be located in Section 36 and will measure 485'x450'. The top 6" of soil and brush will be stockpiled north of the well pad. Should any type of production facilities be located on the well pad, they will be strategically placed to allow for maximum interim reclamation, recontouring and revegetation of the well location.
b. Production from the proposed well will be stored on the well pad until sold. A 3-phase test separator will be connected to each wellhead on the well pad; it will be strategically placed to allow for maximum interim reclamation, recontouring and revegetation of the well location.
c. All permanent (lasting more than six months) above ground structures including but not limited to pump jacks, storage tanks, barrels, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.
d. If any plans change regarding the production facility or other infrastructure (pipeline, electrical lines, etc.), operator will submit a sundry notice or right-of-way (if applicable) prior to installation or construction.

Section 5 – Location and Types of Water:

a. Well(s) will be drilled using a combination of water and mud systems (outlined in the 14 Pt. Plan). The water will be obtained from pre-existing water wells, stored

in an adjacent pit and transported to location by running a pump directly to the drilling rig.

b. In cases where a polyline is used to transport water for drilling and completion purposes, the existing and proposed roads into location will be utilized.

Section 6 – Construction Material:

a. Clean caliche from BLM or third-party source will be used.

Section 7 – Methods for Handling Waste:

a. Well(s) well will be drilled utilizing a closed loop system. Drill cuttings, mud/fluids, salts and other chemicals from the well during drilling and completion operations will be stored safely in steel tanks onsite until hauled away and disposed of properly at an NMOCD approved disposal facility.
b. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
c. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.
d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste materials will be removed and disposed of properly at a state approved disposal facility.

Section 8 – Ancillary Facilities:

a. No ancillary facilities will be needed for this proposed project.

Section 9 – Well Site Layout:

a. The following information is presented in the well site survey plat(s) or diagrams:
    i. Reasonable scale
    ii. Well pad dimensions
    iii. Well pad orientation
    iv. Drilling rig components
    v. Proposed access road
    vi. Elevations
    vii. Topsoil stockpile
    viii. Other disturbances
    ix. Archaeological survey areas
    x. Driving directions
    xi. Surface ownership
b. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat(s) of the well site depict the drilling pad layout as staked.
c. The submitted survey plat package depicts all the necessary information required by Onshore Order No. 1.
d. Topsoil salvaging:
    i. Grass, forbs, and small woody vegetation such as Mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and re-spread evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of

topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

Section 10 – Plans for Surface Reclamation:

Reclamation Objectives

a. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil, to control erosion, and to maximize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
b. The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.
c. The BLM will be notified at least 3 days prior to the commencement of any reclamation procedures.
d. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. Operator will gain written permission from the BLM if more time is needed.
e. Interim reclamation will be performed on the wellsite after the well is drilled and completed. Attached Reclamation Diagram depicts the location and dimension of the planned interim reclamation for the wellsite.

Interim Reclamation Procedures (if performed)

a. Within 30 days of well completion, the wall location and surrounding areas will be cleared of, and maintained free of, all materials, trash and equipment not required for production.
b. In areas planned for interim reclamation, all the surfacing materials will be removed and returned to the original mineral pit or recycled to repair or rebuild roads and will pads.
c. The areas planed for interim reclamation will then be recontoured to the original contour if feasible, if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fil material of the world pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and feel slopes prior to reseeding 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.
d. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations, including cut and fills. 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.
e. Proper erosion control methods will be used on the area to control erosion, run-off siltation of the surrounding area.
f. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and the erosion is controlled.

Final Reclamation (well pad, buried pipelines, etc.)

a. Prior to final reclamation procedures, the well pad, road and surrounding area will be cleared of material, trash and equipment.
b. All surfacing materials will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
c. All disturbed areas, including roads, pipelines, pads, production facilities and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
d. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to the seeding, dozer tracking or other imprinting, in order to break the soil crust and create seed germination micro-sites.
e. Proper erosion control methods will be used on the entire area to control erosion, run-off and siltation of the surrounding area.
f. All unused equipment in structures including pipelines, electric line poles, tanks etc. that serviced the well(s) will be removed.
g. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed and that erosion is controlled.

Section 11 – Surface Ownership:

a. The surface ownership of the proposed project is New Mexico State Lands.

Section 12 – Other Information:

a. There are no dwellings within 1 mile of this location.
b. An onsite was not conducted.
c. The well pad described in this document, Paul Foster West, will contain 2 wells that will produce into a central tank battery (CTB) on location. All production will be measured onsite and will move via flowline to storage and sales points. The wells share a common pad access road, pipleline easement and electrical corridor. Flow lines for these wells will be 4” or less in diameter. The 6 flowlines from the individual wells will share a common corridor that will terminate into the CTB. The wells that share the pad are:
    - Judge Baylor Fed Com 601H
    - Judge Baylor Fed Com 701H
d. Elevation diagrams can be furnished upon request.

Section 13 – Maps and Diagrams:

a. Attached.

APD ID: 10400056296 **Submission Date:** 04/29/2020

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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? N

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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? N

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? N

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? N

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM **Well Number:** 701H

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

10/21/2020

APD ID: 10400056296

Submission Date: 04/29/2020

Operator Name: FRANKLIN MOUNTAIN ENERGY LLC

Well Name: JUDGE BAYLOR FED COM

Well Number: 701H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001761

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:

FRANKLIN MOUNTAIN ENERGY

Judge Baylor Fed Com 701H

1. **Geologic name of surface location:** Permian

2. **Estimated tops of important geological markers:**

Formations	PROG SS	PROG TVD	Picked TVD	delta	Potential/Issues
Cenozoic Alluvium (surface)	3,070'	21'	21'	0	Sand/Gravels/unconsolidated
Rustler	2,405'	686'			Carbonates
Salado	2,020'	1,071'			Salt, Carbonate & Clastics
Base Salt	-1,497'	4,588'			Shaley Carbonate & Shale
Lamar	-1,932'	5,023'			Carbonate & Clastics
Bell Canyon	-1,966'	5,057'			Sandstone - oil/gas/water
Cherry Canyon	-2,833'	5,924'			Sandstone - oil/gas/water
Brushy Canyon	-4,325'	7,416'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,686'	8,777'			Shale/Carbonates - oil/gas
Avalon	-5,710'	8,801'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-6,812'	9,903'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,951'	10,042'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,336'	10,427'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-8,036'	11,127'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,707'	11,798'			Sandstone - oil/gas/water
Wolfcamp	-8,949'	12,040'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-9,010'	12,101'			Overpressure Shale - Oil/Gas
HZ Target	-9,136'	12,227'			Overpressure Shale - Oil/Gas
Wolfcamp B	-9,230'	12,321'			Overpressure Shale - Oil/Gas

3. **Estimated depth of anticipated fresh water, oil or gas:**

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,057’	Oil
Bone Spring	9,903’	Oil
Wolfcamp	12,040	Oil

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface freshwater sands will be protected by setting 13 3/8” casing at 1,300’and circulating cement back to surface.

4. **Casing Program:**

All casings strings will be run new. Safety factors calculated assuming the well is vertical.

Casing string	Weight	Grade	Burst	Collapse	Tension	Conn	Length	API design factor			
								Burst	Collapse	Tension	Coupling
Surface 13 3/8"	54.5	J-55	2730	1130	853	BTC 909	1300	1.18	1.67	4.99	5.32
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5400	1.72	1.67	2.90	3.30
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	12050	1.10	1.27	1.81	1.23
Long string 5 1/2"	23	P-110	14520	14520	729	Anaconda 656	22863	1.32	1.36	1.16	1.05

Preliminary plan is to set 7 5/8" string before entering the Wolfcamp formation at 12,012'TVD/12,050'MD at 38° Inc due too potential overpressure.

Cementing Program:

Cementing Stage tool can be placed in the 1st Intermediate string as a contingency to ensure required TOC to surface.

String	Hole	Casing			Lead					Tail				Excess
Type	Size	Size	Setting Depth	Sacks	Type of cmt	Yield ft3/sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Yield ft3/sk	Water gal/sk	TOC	
Surf	17.5	13.375	1300	804	Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal	1.728	9.19	0	331	HalCem TM, 14.8 ppg, Class C, 2% CaCl2, 0.25pps Celo-Flake	1.364	6.51	1000	100%
					Bentonite, 2%CaCl2,0.25pps Cello-Flake									
Int1	12.25	9.625	5400	1256	Neocem TM, 11.5 ppg, Class C 50:50 Poz	2.271	13.24	0	152	HalCem TM, 14.8 ppg, Class C, 0.25 pps Cello-Flake, 2% CalCl2	1.349	6.25	5100	100%
					Gel, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal									
Int2	8.75	7.625	12050	346	NeoCem, 11 ppg, Class C 2lb/sk Bridgemaker Gel, 5%	2.777	14.21	4400	112	NeoCem 13.2 ppg, Class C	1.44	4.31	11050	50%
					Salt, 5pps LCM, 0.25pps Cello-Flake					0.25 pps Cello-Flake, 2% CalCl2				
Prod	6.75	5.5	22863	545	NeoCem, 14.5 ppg, Gas Migration Control	2.166	9.38	11050						20%

5. Minimum Specifications for Pressure Control:

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated, and the ram-type will
be equipped with blind rams on bottom and 4 ½" x 7" variable pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.
Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the second intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig. The second intermediate casing will be tested to 2000 psi for 30 minutes prior to drillout.
Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. Types and characteristics of the proposed mud system:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.
The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,300'	Fresh - Gel	8.6-8.8	28-34	N/c
1,300' – 12,050'	Brine	8.8-10.2	28-34	N/c
12,050' – 22,863' Lateral	Oil Base	11.0-12.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11-12 ppg. In order to maintain hole stability, mud weights up to 13.0 ppg may be utilized.
An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.
Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary well control and monitoring equipment:

(A) A kelly cock will be kept in the drill string at all times.
(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
(C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.
(D) A wear bushing will be installed in the wellhead prior to drilling out of the surface casing.

8. Logging, testing and coring program:

GR–CCL-CNL Will be run in cased hole during completions phase of operations.
Open-hole logs are not planned for this well.

9. Abnormal conditions, pressures, temperatures and potential hazards:

The estimated bottom-hole temperature at 12,343' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,343 psig (based on 13 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

10. Hydrogen Sulfide Plan:

A. All personnel shall receive proper awareness H2S training.
B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
C. Required Emergency Equipment
    a. Well Control Equipment
        i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.
        ii. Choke manifold with a remotely operated hydraulic choke.

iii. Mud/gas separator

b. Protective equipment for essential personnel
   i. Breathing Apparatus
      1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
      2. Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
      3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation
   ii. Auxiliary Rescue Equipment
      1. Stretcher
      2. Two OSHA full body harnesses
      3. 100 feet of 5/8 inches OSHA approved rope
      4. 1-20# class ABC fire extinguisher
c. H2S Detection and Monitoring Equipment
   i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
      1. Rig Floor
      2. Below Rig Floor / Near BOPs
      3. End of flow line or where well bore fluid is being discharged (near shakers)
   ii. If H2S is encountered, measured values and formations will be provided to the BLM.
d. Visual Warning Systems
   i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
   ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
   iii. Two windsocks will be placed in strategic locations, visible from all angles.
e. Mud Program
   i. The Mud program will be designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.
f. Metallurgy
   i. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service at the anticipated operating pressures to prevent sour sulfide stress cracking.
g. Communication
   i. Communication will be via cell phones and walkie talkies on location.

Franklin Mountain Energy has conducted a review of offset operated wells to determine if an H2S contingency plan is required for the proposed well. Based on concentrations of offset wells, proximity to main roads, and distance to populated areas, the radius of exposure created by a potential release was determined to be minimal and low enough to not necessitate an H2S contingency plan. This will be reevaluated during wellbore construction if H2S is observed and after the well is on production.

FRANKLIN MOUNTAIN ENERGY

11. Anticipated starting date and duration of operations:

The drilling operations on the well should be finished in approximately one month. However, in order to minimize disturbance in the area and to improve efficiency Franklin Mountain is planning to drill all the wells on the pad prior to commence completion operations. To even further reduce the time heavy machinery is used the "batch drilling" method may be used. A batch drilling sequence sundry will be submitted for BLM approval prior to spud. A drilling rig with walking/skidding capabilities will be used.

12. Disposal/environmental concerns:

(A) Drilled cuttings will be hauled to and disposed of in a state-certified disposal site.
(B) Non-hazardous waste mud/cement from the drilling process will be also be hauled to and disposed of in a state-certified disposal site.
(C) Garbage will be hauled to the Pecos City Landfill.
(D) Sewage (grey water) will be hauled to the Carlsbad City Landfill

13. Wellhead:

A multi-bowl wellhead system will be utilized.
After running the 13 3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5,000 psi pressure test. This pressure test will be repeated at least every 21 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 5,000 psi.

After running the 2nd intermediate casing, and before drilling out, the wellhead, BOP, and related equipment will be tested to 10,000/250 psig.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cameron Multi-Bowl WH system has been sent to the BLM office in Carlsbad.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing strings. After installation of the first intermediate string the pack-off and lower flanges will be pressure tested to 5000 psi. After installation of the second intermediate string, the pack-off and upper flange will be pressure tested to 10,000 psi.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

14. Additional variance requests

A. Casing.

In order to minimize potential environmental and technical hazards, this well is planned with two intermediate strings of casing.

1. Variance is requested to wave the centralizer requirements for the 7 5/8” casing due to the tight clearance with 9 5/8” string.
2. Variance is requested to wave/reduce the centralizer requirements for the 5 ½” casing due to the tight clearance with 6 3/4” hole and 5 ½” casing due to tight clearances.

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Judge Baylor Fed Com
Well: Judge Baylor Fed Com 701H
Wellbore: OH
Design: Plan #2

3069.7' GE + 21' KB @ 3090.70usft

Azimuths to Grid North
True North: -0.53°
Magnetic North: 6.00°

Magnetic Field
Strength: 47603.9nT
Dip Angle: 59.93°
Date: 2/25/2020
Model: IGRF2015

PROJECT DETAILS: Lea County, NM (NAD83)

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

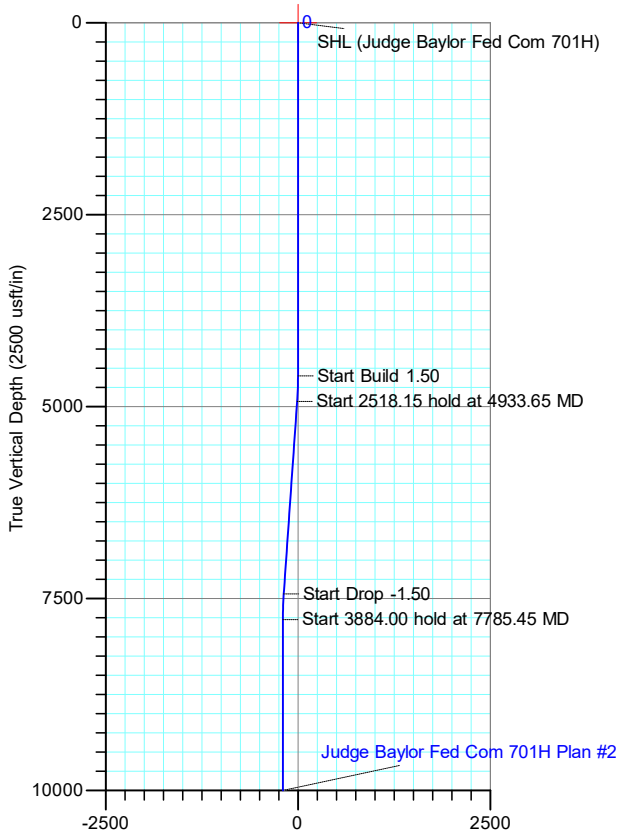
FRANKLIN MOUNTAIN ENERGY

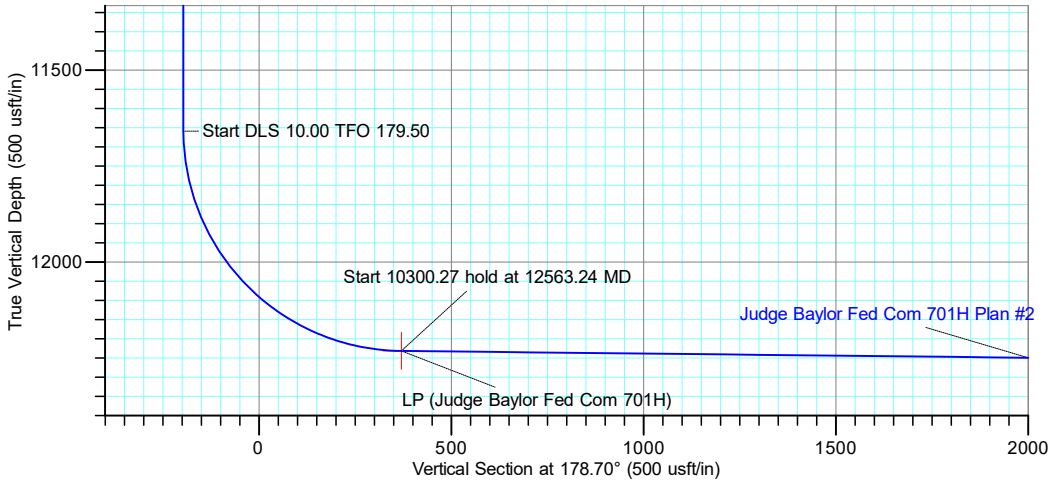
SECTION DETAILS

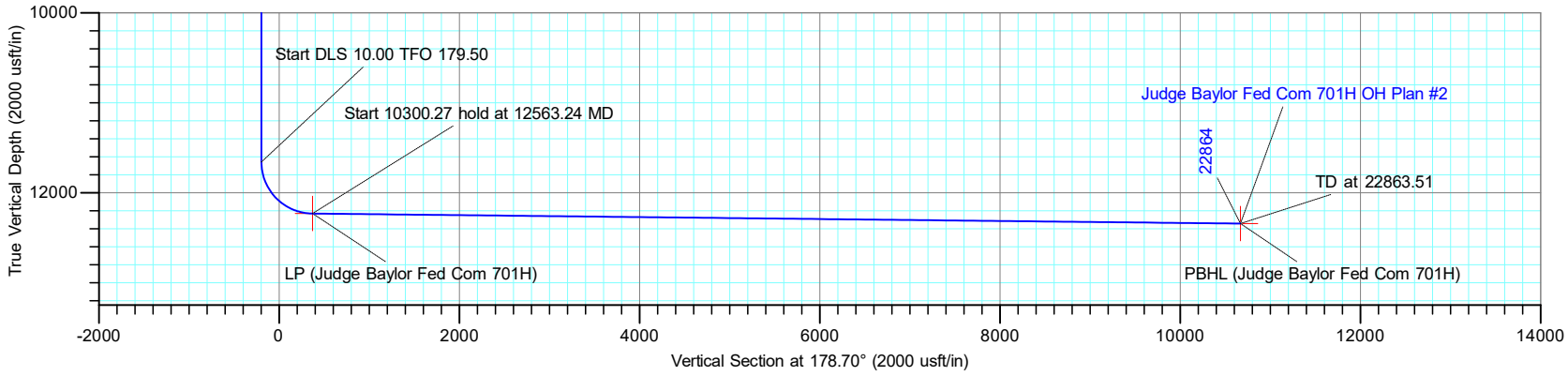
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
4933.65	5.00	36.50	4933.23	11.71	8.66	1.50	36.50	-11.51	Start 2518.15 hold at 4933.65 MD
7451.80	5.00	36.50	7441.77	188.29	139.34	0.00	0.00	-185.08	Start Drop -1.50
7785.45	0.00	0.00	7775.00	200.00	148.00	1.50	180.00	-196.59	Start 3884.00 hold at 7785.45 MD
11669.45	0.00	0.00	11659.00	200.00	148.00	0.00	0.00	-196.59	Start DLS 10.00 TFO 179.50
12563.24	89.38	179.50	12231.92	-366.73	152.92	10.00	179.50	370.11	Start 10300.27 hold at 12563.24 MD
22863.51	89.38	179.50	12343.46	-10666.01	242.36	0.00	0.00	10668.76	TD at 22863.51

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (Judge Baylor Fed Com 701H)	12231.92	-366.73	152.92	32.079248	-103.327616
PBHL (Judge Baylor Fed Com 701H)	12343.46	-10666.01	242.36	32.050938	-103.327637
SHL (Judge Baylor Fed Com 701H)	0.00	0.00	0.00	32.080260	-103.328098







TOTAL DIRECTIONAL SERVICES LLC
671 Academy Ct, Windsor, CO 80550
Phone: (970) 460-9402

Plan: Plan #2 (Judge Baylor Fed Com 701H/OH)
Judge Baylor Fed Com
Created By: Dustin Ault Date: 23:15, February 25 2020
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Judge Baylor Fed Com
Well: Judge Baylor Fed Com 701H
Wellbore: OH
Design: Plan #2

Azimuths to Grid North
True North: -0.53°
Magnetic North: 6.00°

Magnetic Field
Strength: 47603.9nT
Dip Angle: 59.93°
Date: 2/25/2020
Model: IGRF2015

PROJECT DETAILS: Lea County, NM (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

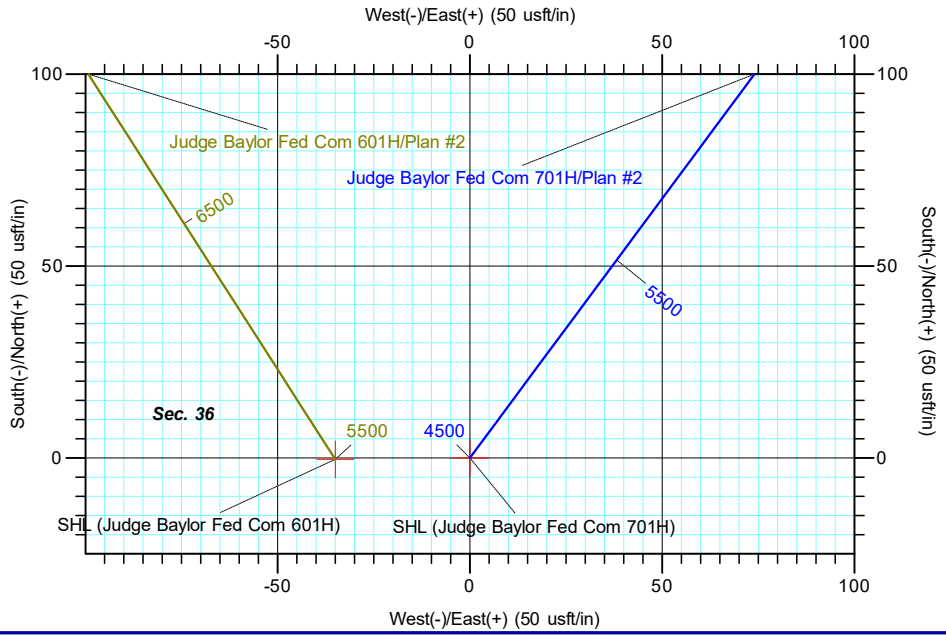
FRANKLIN MOUNTAIN ENERGY

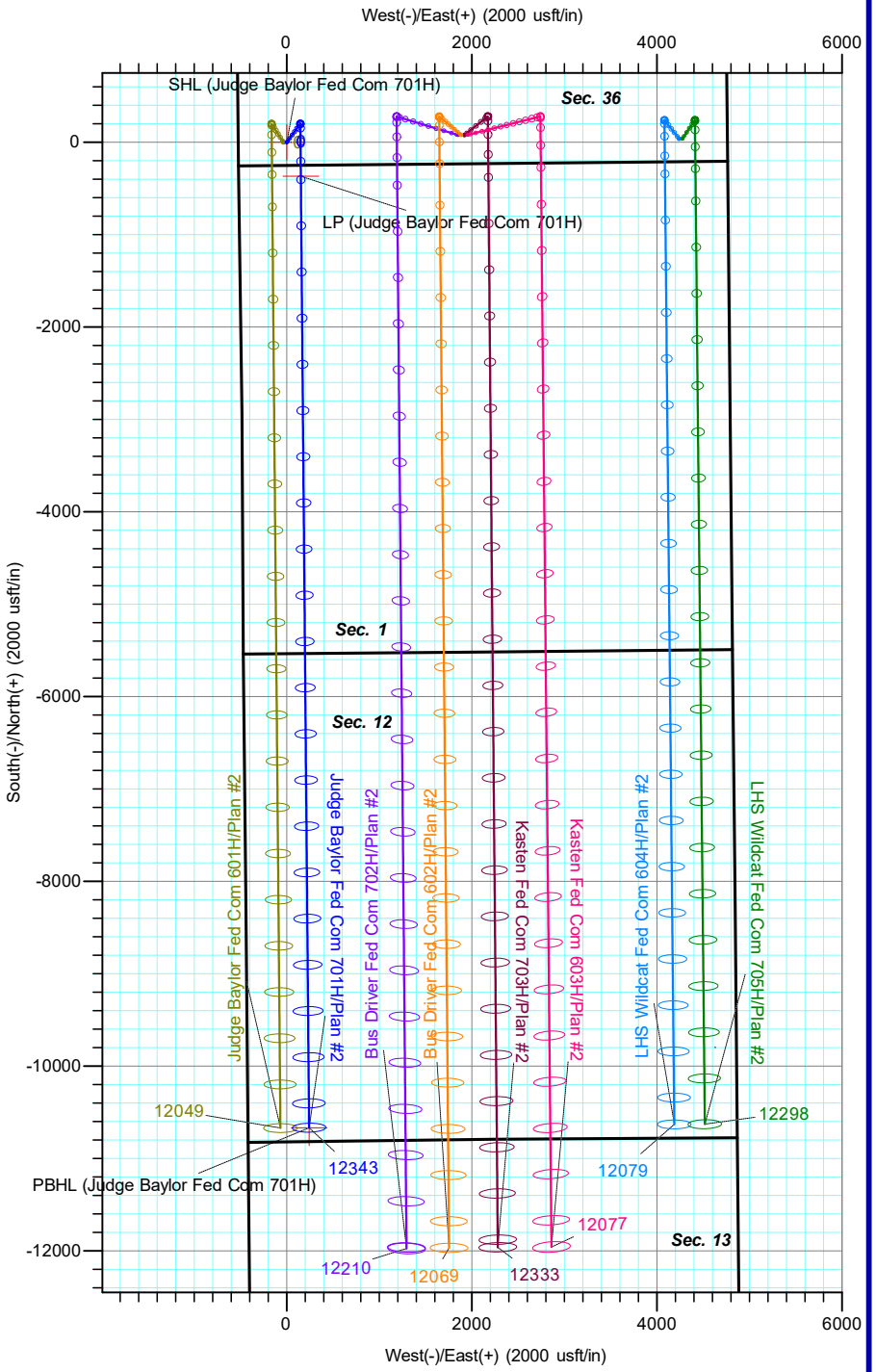
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (Judge Baylor Fed Com 701H)	12231.92	-366.73	152.92	394019.82	852836.52	32.079248	-103.327616
PBHL (Judge Baylor Fed Com 701H)	12343.46	-10666.01	242.36	383720.54	852925.96	32.050938	-103.327637
SHL (Judge Baylor Fed Com 701H)	0.00	0.00	0.00	394386.55	852683.60	32.080260	-103.328098

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
4933.65	5.00	36.50	4933.23	11.71	8.66	1.50	36.50	-11.51	Start 2518.15 hold at 4933.65 MD
7451.80	5.00	36.50	7441.77	188.29	139.34	0.00	0.00	-185.08	Start Drop -1.50
7785.45	0.00	0.00	7775.00	200.00	148.00	1.50	180.00	-196.59	Start 3884.00 hold at 7785.45 MD
11669.45	0.00	0.00	11659.00	200.00	148.00	0.00	0.00	-196.59	Start DLS 10.00 TFO 179.50
12563.24	89.38	179.50	12231.92	-366.73	152.92	10.00	179.50	370.11	Start 10300.27 hold at 12563.24 MD
22863.51	89.38	179.50	12343.46	-10666.01	242.36	0.00	0.00	10668.76	TD at 22863.51





TOTAL DIRECTIONAL SERVICES LLC
671 Academy Ct, Windsor, CO 80550
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Plan: Plan #2 (Judge Baylor Fed Com 701H/OH)
Judge Baylor Fed Com
Created By: Dustin Ault Date: 23:15, February 25 2020
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Lea County, NM (NAD83)
Judge Baylor Fed Com
Judge Baylor Fed Com 701H

OH

Plan: Plan #2

Standard Planning Report

25 February, 2020

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project Lea County, NM (NAD83)

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

Site Judge Baylor Fed Com

Site Position:		**Northing:**	394,386.23 usft	**Latitude:**	32.080260
From:	Map	**Easting:**	852,648.61 usft	**Longitude:**	-103.328212
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.53 °

Well Judge Baylor Fed Com 701H

Well Position	**+N/-S**	0.32 usft	**Northing:**	394,386.55 usft	**Latitude:**	32.080260
	+E/-W	34.99 usft	**Easting:**	852,683.60 usft	**Longitude:**	-103.328099
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,069.70 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/25/2020	6.54	59.93	47,603.86184820

Design Plan #2

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	178.70

Plan Survey Tool Program **Date** 2/25/2020

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,863.52	Plan #2 (OH)	OWSG (Rev2) MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,933.65	5.00	36.50	4,933.23	11.71	8.66	1.50	1.50	0.00	36.50	
7,451.80	5.00	36.50	7,441.77	188.29	139.34	0.00	0.00	0.00	0.00	
7,785.45	0.00	0.00	7,775.00	200.00	148.00	1.50	-1.50	0.00	180.00	
11,669.45	0.00	0.00	11,659.00	200.00	148.00	0.00	0.00	0.00	0.00	
12,563.24	89.38	179.50	12,231.92	-366.73	152.92	10.00	10.00	20.08	179.50	
22,863.52	89.38	179.50	12,343.46	-10,666.01	242.36	0.00	0.00	0.00	0.00	PBHL (Judge Baylor F

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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
SHL (Judge Baylor Fed Com 701H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
4,700.00	1.50	36.50	4,699.99	1.05	0.78	-1.03	1.50	1.50	0.00
4,800.00	3.00	36.50	4,799.91	4.21	3.11	-4.14	1.50	1.50	0.00
4,900.00	4.50	36.50	4,899.69	9.47	7.00	-9.30	1.50	1.50	0.00
4,933.65	5.00	36.50	4,933.23	11.71	8.66	-11.51	1.50	1.50	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
Start 2518.15 hold at 4933.65 MD									
5,000.00	5.00	36.50	4,999.32	16.36	12.11	-16.08	0.00	0.00	0.00
5,100.00	5.00	36.50	5,098.94	23.37	17.30	-22.97	0.00	0.00	0.00
5,200.00	5.00	36.50	5,198.56	30.38	22.48	-29.87	0.00	0.00	0.00
5,300.00	5.00	36.50	5,298.18	37.40	27.67	-36.76	0.00	0.00	0.00
5,400.00	5.00	36.50	5,397.80	44.41	32.86	-43.65	0.00	0.00	0.00
5,500.00	5.00	36.50	5,497.42	51.42	38.05	-50.54	0.00	0.00	0.00
5,600.00	5.00	36.50	5,597.04	58.43	43.24	-57.44	0.00	0.00	0.00
5,700.00	5.00	36.50	5,696.65	65.45	48.43	-64.33	0.00	0.00	0.00
5,800.00	5.00	36.50	5,796.27	72.46	53.62	-71.22	0.00	0.00	0.00
5,900.00	5.00	36.50	5,895.89	79.47	58.81	-78.12	0.00	0.00	0.00
6,000.00	5.00	36.50	5,995.51	86.49	64.00	-85.01	0.00	0.00	0.00
6,100.00	5.00	36.50	6,095.13	93.50	69.19	-91.90	0.00	0.00	0.00
6,200.00	5.00	36.50	6,194.75	100.51	74.38	-98.79	0.00	0.00	0.00
6,300.00	5.00	36.50	6,294.37	107.52	79.57	-105.69	0.00	0.00	0.00
6,400.00	5.00	36.50	6,393.99	114.54	84.76	-112.58	0.00	0.00	0.00
6,500.00	5.00	36.50	6,493.60	121.55	89.95	-119.47	0.00	0.00	0.00
6,600.00	5.00	36.50	6,593.22	128.56	95.13	-126.37	0.00	0.00	0.00
6,700.00	5.00	36.50	6,692.84	135.57	100.32	-133.26	0.00	0.00	0.00
6,800.00	5.00	36.50	6,792.46	142.59	105.51	-140.15	0.00	0.00	0.00
6,900.00	5.00	36.50	6,892.08	149.60	110.70	-147.04	0.00	0.00	0.00
7,000.00	5.00	36.50	6,991.70	156.61	115.89	-153.94	0.00	0.00	0.00
7,100.00	5.00	36.50	7,091.32	163.62	121.08	-160.83	0.00	0.00	0.00
7,200.00	5.00	36.50	7,190.94	170.64	126.27	-167.72	0.00	0.00	0.00
7,300.00	5.00	36.50	7,290.55	177.65	131.46	-174.62	0.00	0.00	0.00
7,400.00	5.00	36.50	7,390.17	184.66	136.65	-181.51	0.00	0.00	0.00
7,451.80	5.00	36.50	7,441.77	188.29	139.34	-185.08	0.00	0.00	0.00
Start Drop -1.50									
7,500.00	4.28	36.50	7,489.82	191.43	141.66	-188.16	1.50	-1.50	0.00
7,600.00	2.78	36.50	7,589.62	196.38	145.32	-193.03	1.50	-1.50	0.00
7,700.00	1.28	36.50	7,689.56	199.23	147.43	-195.83	1.50	-1.50	0.00
7,785.45	0.00	0.00	7,775.00	200.00	148.00	-196.59	1.50	-1.50	0.00
Start 3884.00 hold at 7785.45 MD									
7,800.00	0.00	0.00	7,789.55	200.00	148.00	-196.59	0.00	0.00	0.00
7,900.00	0.00	0.00	7,889.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,000.00	0.00	0.00	7,989.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,100.00	0.00	0.00	8,089.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,200.00	0.00	0.00	8,189.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,300.00	0.00	0.00	8,289.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,400.00	0.00	0.00	8,389.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,500.00	0.00	0.00	8,489.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,600.00	0.00	0.00	8,589.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,700.00	0.00	0.00	8,689.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,800.00	0.00	0.00	8,789.55	200.00	148.00	-196.59	0.00	0.00	0.00
8,900.00	0.00	0.00	8,889.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,000.00	0.00	0.00	8,989.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,100.00	0.00	0.00	9,089.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,200.00	0.00	0.00	9,189.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,300.00	0.00	0.00	9,289.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,400.00	0.00	0.00	9,389.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,500.00	0.00	0.00	9,489.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,600.00	0.00	0.00	9,589.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,700.00	0.00	0.00	9,689.55	200.00	148.00	-196.59	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
9,800.00	0.00	0.00	9,789.55	200.00	148.00	-196.59	0.00	0.00	0.00
9,900.00	0.00	0.00	9,889.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,000.00	0.00	0.00	9,989.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,100.00	0.00	0.00	10,089.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,200.00	0.00	0.00	10,189.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,300.00	0.00	0.00	10,289.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,400.00	0.00	0.00	10,389.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,500.00	0.00	0.00	10,489.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,600.00	0.00	0.00	10,589.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,700.00	0.00	0.00	10,689.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,800.00	0.00	0.00	10,789.55	200.00	148.00	-196.59	0.00	0.00	0.00
10,900.00	0.00	0.00	10,889.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,000.00	0.00	0.00	10,989.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,100.00	0.00	0.00	11,089.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,200.00	0.00	0.00	11,189.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,300.00	0.00	0.00	11,289.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,400.00	0.00	0.00	11,389.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,500.00	0.00	0.00	11,489.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,600.00	0.00	0.00	11,589.55	200.00	148.00	-196.59	0.00	0.00	0.00
11,669.45	0.00	0.00	11,659.00	200.00	148.00	-196.59	0.00	0.00	0.00
Start DLS 10.00 TFO 179.50									
11,700.00	3.06	179.50	11,689.54	199.19	148.01	-195.77	10.00	10.00	0.00
11,750.00	8.06	179.50	11,739.29	194.35	148.05	-190.93	10.00	10.00	0.00
11,800.00	13.06	179.50	11,788.42	185.19	148.13	-181.78	10.00	10.00	0.00
11,850.00	18.06	179.50	11,836.58	171.79	148.24	-168.38	10.00	10.00	0.00
11,900.00	23.06	179.50	11,883.38	154.24	148.40	-150.83	10.00	10.00	0.00
11,950.00	28.06	179.50	11,928.47	132.68	148.58	-129.27	10.00	10.00	0.00
12,000.00	33.06	179.50	11,971.52	107.27	148.81	-103.86	10.00	10.00	0.00
12,050.00	38.06	179.50	12,012.18	78.20	149.06	-74.80	10.00	10.00	0.00
12,100.00	43.06	179.50	12,050.16	45.71	149.34	-42.30	10.00	10.00	0.00
12,150.00	48.06	179.50	12,085.16	10.02	149.65	-6.62	10.00	10.00	0.00
12,200.00	53.06	179.50	12,116.92	-28.57	149.98	31.97	10.00	10.00	0.00
12,250.00	58.06	179.50	12,145.19	-69.79	150.34	73.19	10.00	10.00	0.00
12,300.00	63.06	179.50	12,169.76	-113.32	150.72	116.71	10.00	10.00	0.00
12,350.00	68.06	179.50	12,190.44	-158.82	151.12	162.21	10.00	10.00	0.00
12,400.00	73.06	179.50	12,207.08	-205.95	151.53	209.34	10.00	10.00	0.00
12,450.00	78.06	179.50	12,219.55	-254.36	151.95	257.74	10.00	10.00	0.00
12,500.00	83.06	179.50	12,227.75	-303.66	152.37	307.04	10.00	10.00	0.00
12,550.00	88.06	179.50	12,231.63	-353.49	152.81	356.87	10.00	10.00	0.00
12,563.24	89.38	179.50	12,231.92	-366.73	152.92	370.11	10.00	10.00	0.00
Start 10300.27 hold at 12563.24 MD - LP (Judge Baylor Fed Com 701H)									
12,600.00	89.38	179.50	12,232.32	-403.48	153.24	406.86	0.00	0.00	0.00
12,700.00	89.38	179.50	12,233.41	-503.47	154.11	506.85	0.00	0.00	0.00
12,800.00	89.38	179.50	12,234.49	-603.46	154.98	606.83	0.00	0.00	0.00
12,900.00	89.38	179.50	12,235.57	-703.46	155.85	706.81	0.00	0.00	0.00
13,000.00	89.38	179.50	12,236.65	-803.45	156.71	806.80	0.00	0.00	0.00
13,100.00	89.38	179.50	12,237.74	-903.44	157.58	906.78	0.00	0.00	0.00
13,200.00	89.38	179.50	12,238.82	-1,003.43	158.45	1,006.77	0.00	0.00	0.00
13,300.00	89.38	179.50	12,239.90	-1,103.42	159.32	1,106.75	0.00	0.00	0.00
13,400.00	89.38	179.50	12,240.99	-1,203.41	160.19	1,206.74	0.00	0.00	0.00
13,500.00	89.38	179.50	12,242.07	-1,303.40	161.06	1,306.72	0.00	0.00	0.00
13,600.00	89.38	179.50	12,243.15	-1,403.39	161.92	1,406.70	0.00	0.00	0.00
13,700.00	89.38	179.50	12,244.23	-1,503.38	162.79	1,506.69	0.00	0.00	0.00
13,800.00	89.38	179.50	12,245.32	-1,603.37	163.66	1,606.67	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
13,900.00	89.38	179.50	12,246.40	-1,703.36	164.53	1,706.66	0.00	0.00	0.00
14,000.00	89.38	179.50	12,247.48	-1,803.35	165.40	1,806.64	0.00	0.00	0.00
14,100.00	89.38	179.50	12,248.57	-1,903.34	166.27	1,906.63	0.00	0.00	0.00
14,200.00	89.38	179.50	12,249.65	-2,003.33	167.13	2,006.61	0.00	0.00	0.00
14,300.00	89.38	179.50	12,250.73	-2,103.32	168.00	2,106.59	0.00	0.00	0.00
14,400.00	89.38	179.50	12,251.81	-2,203.31	168.87	2,206.58	0.00	0.00	0.00
14,500.00	89.38	179.50	12,252.90	-2,303.30	169.74	2,306.56	0.00	0.00	0.00
14,600.00	89.38	179.50	12,253.98	-2,403.29	170.61	2,406.55	0.00	0.00	0.00
14,700.00	89.38	179.50	12,255.06	-2,503.28	171.48	2,506.53	0.00	0.00	0.00
14,800.00	89.38	179.50	12,256.15	-2,603.27	172.34	2,606.52	0.00	0.00	0.00
14,900.00	89.38	179.50	12,257.23	-2,703.26	173.21	2,706.50	0.00	0.00	0.00
15,000.00	89.38	179.50	12,258.31	-2,803.25	174.08	2,806.48	0.00	0.00	0.00
15,100.00	89.38	179.50	12,259.39	-2,903.24	174.95	2,906.47	0.00	0.00	0.00
15,200.00	89.38	179.50	12,260.48	-3,003.23	175.82	3,006.45	0.00	0.00	0.00
15,300.00	89.38	179.50	12,261.56	-3,103.22	176.69	3,106.44	0.00	0.00	0.00
15,400.00	89.38	179.50	12,262.64	-3,203.21	177.55	3,206.42	0.00	0.00	0.00
15,500.00	89.38	179.50	12,263.72	-3,303.20	178.42	3,306.41	0.00	0.00	0.00
15,600.00	89.38	179.50	12,264.81	-3,403.20	179.29	3,406.39	0.00	0.00	0.00
15,700.00	89.38	179.50	12,265.89	-3,503.19	180.16	3,506.37	0.00	0.00	0.00
15,800.00	89.38	179.50	12,266.97	-3,603.18	181.03	3,606.36	0.00	0.00	0.00
15,900.00	89.38	179.50	12,268.06	-3,703.17	181.89	3,706.34	0.00	0.00	0.00
16,000.00	89.38	179.50	12,269.14	-3,803.16	182.76	3,806.33	0.00	0.00	0.00
16,100.00	89.38	179.50	12,270.22	-3,903.15	183.63	3,906.31	0.00	0.00	0.00
16,200.00	89.38	179.50	12,271.30	-4,003.14	184.50	4,006.30	0.00	0.00	0.00
16,300.00	89.38	179.50	12,272.39	-4,103.13	185.37	4,106.28	0.00	0.00	0.00
16,400.00	89.38	179.50	12,273.47	-4,203.12	186.24	4,206.26	0.00	0.00	0.00
16,500.00	89.38	179.50	12,274.55	-4,303.11	187.10	4,306.25	0.00	0.00	0.00
16,600.00	89.38	179.50	12,275.64	-4,403.10	187.97	4,406.23	0.00	0.00	0.00
16,700.00	89.38	179.50	12,276.72	-4,503.09	188.84	4,506.22	0.00	0.00	0.00
16,800.00	89.38	179.50	12,277.80	-4,603.08	189.71	4,606.20	0.00	0.00	0.00
16,900.00	89.38	179.50	12,278.88	-4,703.07	190.58	4,706.19	0.00	0.00	0.00
17,000.00	89.38	179.50	12,279.97	-4,803.06	191.45	4,806.17	0.00	0.00	0.00
17,100.00	89.38	179.50	12,281.05	-4,903.05	192.31	4,906.15	0.00	0.00	0.00
17,200.00	89.38	179.50	12,282.13	-5,003.04	193.18	5,006.14	0.00	0.00	0.00
17,300.00	89.38	179.50	12,283.22	-5,103.03	194.05	5,106.12	0.00	0.00	0.00
17,400.00	89.38	179.50	12,284.30	-5,203.02	194.92	5,206.11	0.00	0.00	0.00
17,500.00	89.38	179.50	12,285.38	-5,303.01	195.79	5,306.09	0.00	0.00	0.00
17,600.00	89.38	179.50	12,286.46	-5,403.00	196.66	5,406.08	0.00	0.00	0.00
17,700.00	89.38	179.50	12,287.55	-5,502.99	197.52	5,506.06	0.00	0.00	0.00
17,800.00	89.38	179.50	12,288.63	-5,602.98	198.39	5,606.04	0.00	0.00	0.00
17,900.00	89.38	179.50	12,289.71	-5,702.97	199.26	5,706.03	0.00	0.00	0.00
18,000.00	89.38	179.50	12,290.80	-5,802.96	200.13	5,806.01	0.00	0.00	0.00
18,100.00	89.38	179.50	12,291.88	-5,902.95	201.00	5,906.00	0.00	0.00	0.00
18,200.00	89.38	179.50	12,292.96	-6,002.94	201.87	6,005.98	0.00	0.00	0.00
18,300.00	89.38	179.50	12,294.04	-6,102.94	202.73	6,105.97	0.00	0.00	0.00
18,400.00	89.38	179.50	12,295.13	-6,202.93	203.60	6,205.95	0.00	0.00	0.00
18,500.00	89.38	179.50	12,296.21	-6,302.92	204.47	6,305.93	0.00	0.00	0.00
18,600.00	89.38	179.50	12,297.29	-6,402.91	205.34	6,405.92	0.00	0.00	0.00
18,700.00	89.38	179.50	12,298.38	-6,502.90	206.21	6,505.90	0.00	0.00	0.00
18,800.00	89.38	179.50	12,299.46	-6,602.89	207.08	6,605.89	0.00	0.00	0.00
18,900.00	89.38	179.50	12,300.54	-6,702.88	207.94	6,705.87	0.00	0.00	0.00
19,000.00	89.38	179.50	12,301.62	-6,802.87	208.81	6,805.86	0.00	0.00	0.00
19,100.00	89.38	179.50	12,302.71	-6,902.86	209.68	6,905.84	0.00	0.00	0.00
19,200.00	89.38	179.50	12,303.79	-7,002.85	210.55	7,005.82	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
19,300.00	89.38	179.50	12,304.87	-7,102.84	211.42	7,105.81	0.00	0.00	0.00
19,400.00	89.38	179.50	12,305.96	-7,202.83	212.29	7,205.79	0.00	0.00	0.00
19,500.00	89.38	179.50	12,307.04	-7,302.82	213.15	7,305.78	0.00	0.00	0.00
19,600.00	89.38	179.50	12,308.12	-7,402.81	214.02	7,405.76	0.00	0.00	0.00
19,700.00	89.38	179.50	12,309.20	-7,502.80	214.89	7,505.75	0.00	0.00	0.00
19,800.00	89.38	179.50	12,310.29	-7,602.79	215.76	7,605.73	0.00	0.00	0.00
19,900.00	89.38	179.50	12,311.37	-7,702.78	216.63	7,705.71	0.00	0.00	0.00
20,000.00	89.38	179.50	12,312.45	-7,802.77	217.50	7,805.70	0.00	0.00	0.00
20,100.00	89.38	179.50	12,313.54	-7,902.76	218.36	7,905.68	0.00	0.00	0.00
20,200.00	89.38	179.50	12,314.62	-8,002.75	219.23	8,005.67	0.00	0.00	0.00
20,300.00	89.38	179.50	12,315.70	-8,102.74	220.10	8,105.65	0.00	0.00	0.00
20,400.00	89.38	179.50	12,316.78	-8,202.73	220.97	8,205.64	0.00	0.00	0.00
20,500.00	89.38	179.50	12,317.87	-8,302.72	221.84	8,305.62	0.00	0.00	0.00
20,600.00	89.38	179.50	12,318.95	-8,402.71	222.71	8,405.60	0.00	0.00	0.00
20,700.00	89.38	179.50	12,320.03	-8,502.70	223.57	8,505.59	0.00	0.00	0.00
20,800.00	89.38	179.50	12,321.12	-8,602.69	224.44	8,605.57	0.00	0.00	0.00
20,900.00	89.38	179.50	12,322.20	-8,702.68	225.31	8,705.56	0.00	0.00	0.00
21,000.00	89.38	179.50	12,323.28	-8,802.68	226.18	8,805.54	0.00	0.00	0.00
21,100.00	89.38	179.50	12,324.36	-8,902.67	227.05	8,905.53	0.00	0.00	0.00
21,200.00	89.38	179.50	12,325.45	-9,002.66	227.92	9,005.51	0.00	0.00	0.00
21,300.00	89.38	179.50	12,326.53	-9,102.65	228.78	9,105.49	0.00	0.00	0.00
21,400.00	89.38	179.50	12,327.61	-9,202.64	229.65	9,205.48	0.00	0.00	0.00
21,500.00	89.38	179.50	12,328.70	-9,302.63	230.52	9,305.46	0.00	0.00	0.00
21,600.00	89.38	179.50	12,329.78	-9,402.62	231.39	9,405.45	0.00	0.00	0.00
21,700.00	89.38	179.50	12,330.86	-9,502.61	232.26	9,505.43	0.00	0.00	0.00
21,800.00	89.38	179.50	12,331.94	-9,602.60	233.13	9,605.42	0.00	0.00	0.00
21,900.00	89.38	179.50	12,333.03	-9,702.59	233.99	9,705.40	0.00	0.00	0.00
22,000.00	89.38	179.50	12,334.11	-9,802.58	234.86	9,805.38	0.00	0.00	0.00
22,100.00	89.38	179.50	12,335.19	-9,902.57	235.73	9,905.37	0.00	0.00	0.00
22,200.00	89.38	179.50	12,336.28	-10,002.56	236.60	10,005.35	0.00	0.00	0.00
22,300.00	89.38	179.50	12,337.36	-10,102.55	237.47	10,105.34	0.00	0.00	0.00
22,400.00	89.38	179.50	12,338.44	-10,202.54	238.34	10,205.32	0.00	0.00	0.00
22,500.00	89.38	179.50	12,339.52	-10,302.53	239.20	10,305.31	0.00	0.00	0.00
22,600.00	89.38	179.50	12,340.61	-10,402.52	240.07	10,405.29	0.00	0.00	0.00
22,700.00	89.38	179.50	12,341.69	-10,502.51	240.94	10,505.27	0.00	0.00	0.00
22,800.00	89.38	179.50	12,342.77	-10,602.50	241.81	10,605.26	0.00	0.00	0.00
22,863.52	89.38	179.50	12,343.46	-10,666.01	242.36	10,668.76	0.00	0.00	0.00

TD at 22863.51 - PBHL (Judge Baylor Fed Com 701H)

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Judge Baylor Fed Com 701H
Company:	Franklin Mountain Energy	**TVD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3069.7' GE + 21' KB @ 3090.70usft
Site:	Judge Baylor Fed Com	**North Reference:**	Grid
Well:	Judge Baylor Fed Com 701H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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
SHL (Judge Baylor Fed (- plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	394,386.55	852,683.60	32.080260	-103.328099
LP (Judge Baylor Fed C(- plan hits target center - Point	0.00	0.00	12,231.92	-366.73	152.92	394,019.82	852,836.52	32.079249	-103.327616
PBHL (Judge Baylor Fec - plan hits target center - Point	0.00	0.00	12,343.46	-10,666.01	242.36	383,720.54	852,925.96	32.050938	-103.327637

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,600.00	4,600.00	0.00	0.00	Start Build 1.50
4,933.65	4,933.23	11.71	8.66	Start 2518.15 hold at 4933.65 MD
7,451.80	7,441.77	188.29	139.34	Start Drop -1.50
7,785.45	7,775.00	200.00	148.00	Start 3884.00 hold at 7785.45 MD
11,669.45	11,659.00	200.00	148.00	Start DLS 10.00 TFO 179.50
12,563.24	12,231.92	-366.73	152.92	Start 10300.27 hold at 12563.24 MD
22,863.52	12,343.46	-10,666.01	242.36	TD at 22863.51

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM117126**
LOCATION:	Section 36, T.25 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Judge Baylor Fed Com 701H
SURFACE HOLE FOOTAGE:	250'/S & 523'/W
BOTTOM HOLE FOOTAGE	150'/S & 660'/W

WELL NAME & NO.:	Judge Baylor Fed Com 601H
SURFACE HOLE FOOTAGE:	250'/S & 488'/W
BOTTOM HOLE FOOTAGE	150'/S & 350'/W

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1150 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing shall be set at approximately **5400 feet** is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

    Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

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

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

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

C. PRESSURE CONTROL

1.

Option 1:

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

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing

shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

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

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

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

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

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

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

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

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

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

A. CASING

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

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

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

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

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

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

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

B. PRESSURE CONTROL

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

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

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

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

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

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

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

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

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

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

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

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

FRANKLIN MOUNTAIN ENERGY

Hydrogen Sulfide Plan

A. All personnel shall receive proper awareness H_2S training.
B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
C. Required Emergency Equipment
    a. Well Control Equipment
        i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.
        ii. Choke manifold with a remotely operated hydraulic choke.
        iii. Mud/gas separator
    b. Protective equipment for essential personnel
        i. Breathing Apparatus
            1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
            2. Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
            3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation
        ii. Auxiliary Rescue Equipment
            1. Stretcher
            2. Two OSHA full body harnesses
            3. 100 feet of 5/8 inches OSHA approved rope
            4. 1-20# class ABC fire extinguisher
    c. H_2S Detection and Monitoring Equipment
        i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
            1. Rig Floor
            2. Below Rig Floor / Near BOPs
            3. End of flow line or where well bore fluid is being discharged (near shakers)
        ii. If H_2S is encountered, measured values and formations will be provided to the BLM.
    d. Visual Warning Systems
        i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
        ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
        iii. Two windsocks will be placed in strategic locations, visible from all angles.
    e. Mud Program
        i. The Mud program will be designed to minimize the volume of H_2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H_2S bearing zones.

f. Metallurgy
    i. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H_2S service at the anticipated operating pressures to prevent sour sulfide stress cracking.
g. Communication
    i. Communication will be via cell phones and walkie talkies on location.

Franklin Mountain Energy has conducted a review of offset operated wells to determine if an H_2S contingency plan is required for the proposed well. Based on concentrations of offset wells, proximity to main roads, and distance to populated areas, the radius of exposure created by a potential release was determined to be minimal and low enough to not necessitate an H_2S contingency plan. This will be reevaluated during wellbore construction if H_2S is observed and after the well is on production.

FRANKLIN MOUNTAIN ENERGY

Emergency Contact List:

Vladimir Roudakov, Drilling Engineer	**Cell 720 933 9784**
Rachael Overbey, Project and Regulatory Director	**Cell 303 570 4057**
Franklin Mountain Energy Afterhours Emergency Call Tree:	**720-640-7517**

EMERGENCY NUMBERS:

Agency	Telephone Number
BLM – Carlsbad Mainline	**575-234-5972**
BLM – Spill Emergency	**575-234-6235**
BLM – Engineering Emergency	**575-361-2822**
NMOCD District 1 – Hobbs Mainline	**575-393-6161**
NMOCD Emergency Line	**575-370-3186**
Wild Well Control	**281-784-4700**
H2S Emergency response:	
Air Ambulance New Mexico – Lea Co Reginal	**575-391-2934**
Lea County Sheriff's Department	**575-396-3611**
Fire Department:	
Carlsbad	**575-885-3125**
Artesia	**575-746-5050**
Lea County Regional Medical Center	**575-492-5000**
Jal Community Hospital	**505-395-2511**
Lea County Emergency Management	**575-396-8602**
Poison Control Center	**800-222-1222**