

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. NMNM138886

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

FRANKLIN MOUNTAIN ENERGY LLC

3a. Address 2401 E 2nd Avenue, Suite 300, Denver, CO 80202

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

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. BRECKENRIDGE FED COM/604H

9. API Well No. 3002547117

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SEC 9/T24S/R35E/NMP

10. Field and Pool or Exploratory Area

OJO CHISO, BONE SPRING SOUTH/OJO CHISO; BO

11. Country or Parish, State

LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Franklin Mountain Energy, LLC (FME), Operator, respectfully requests approval to make the following changes to the proposed drilling plan for the above referenced well: BHL Change: FME requests approval to change the BHL for this well to 150' FNL 660' FEL Sec 14 24S 35E SHL remains the same. Please see attached Plan #2, revised 14-point plan, geo prog and plats including C-102.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

RACHAEL OVERBEY / Ph: (720) 414-7868

Title py Director Operations Planning and Regulatory

Signature

Date

02/24/2022

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date

03/04/2022

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CARLSBAD

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.

(Instructions on page 2)

Additional Information

Location of Well

0. SHL: SESE / 325 FSL / 1303 FEL / TWSP: 24S / RANGE: 35E / SECTION: 9 / LAT: 32.225682 / LONG: -103.368161 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 517 FSL / 465 FEL / TWSP: 24S / RANGE: 35E / SECTION: 9 / LAT: 32.227416 / LONG: -103.365433 (TVD: 11807 feet, MD: 12203 feet)

BHL: LOT 1 / 150 FNL / 350 FEL / TWSP: 24S / RANGE: 35E / SECTION: 4 / LAT: 32.253419 / LONG: -103.365155 (TVD: 11548 feet, MD: 21667 feet)

CONFIDENTIAL

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-47117		² Pool Code 98098	³ Pool Name WC-025 G-09 S243532M; WOLFBONE	
⁴ Property Code 327347		⁵ Property Name BRECKENRIDGE FED COM		⁶ Well Number 604H
⁷ OGRID No. 373910		⁸ Operator Name FRANKLIN MOUNTAIN ENERGY LLC		⁹ Elevation 3374.7'

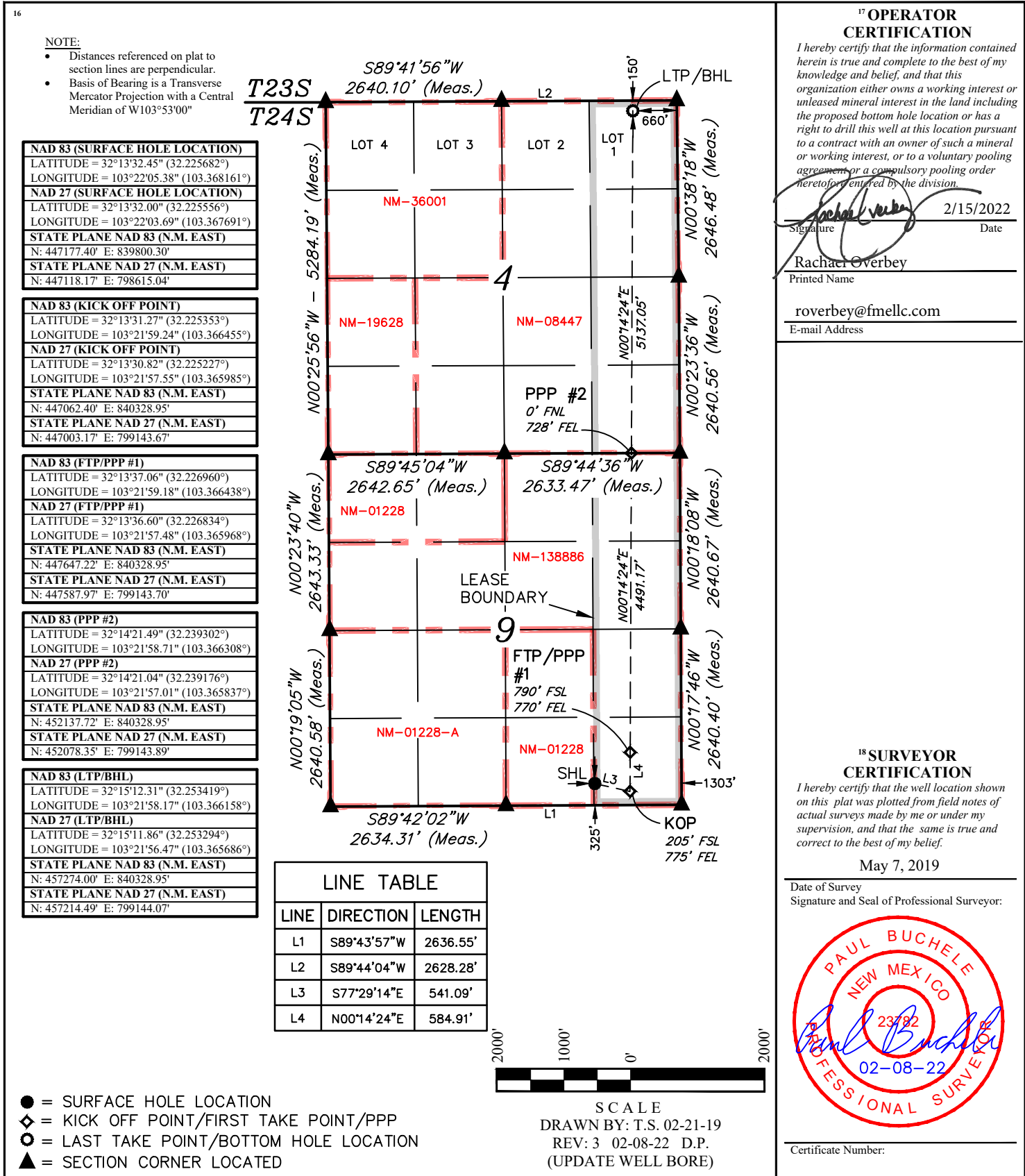
¹⁰Surface Location

UL or lot no. P	Section 9	Township 24S	Range 35E	Lot 1dn	Feet from the 325	North/South line SOUTH	Feet from the 1303	East/West line EAST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. 1	Section 4	Township 24S	Range 35E	Lot Idn	Feet from the 150	North/South line NORTH	Feet from the 660	East/West line EAST	County LEA
¹² Dedicated Acres 320.19		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





Breckenridge Fed Com 604H

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)	3,375'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,434'	971'			Carbonates
Salado	2,020'	1,385'			Salt, Carbonate & Clastics
Base Salt	455'	2,950'			Shaley Carbonate & Shale
Potential Losses	-815'	4,220'			
Capitan Reef	-1,047'	4,452'			Carbonates
Lamar	-1,836'	5,241'			Carbonate & Clastics
Bell Canyon	-1,901'	5,306'			Sandstone - oil/gas/water
Cherry Canyon	-2,819'	6,224'			Sandstone - oil/gas/water
Brushy Canyon	-4,184'	7,589'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,499'	8,904'			Shale/Carbonates - oil/gas
Avalon	-5,520'	8,925'			Shale/Carbonates - oil/gas
Chert Zone	-5,719'	9,124'			Carbonates, chert
First Bone Spring Sand	-6,600'	10,005'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,701'	10,106'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,224'	10,629'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,781'	11,186'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,282'	11,687'			Sandstone - oil/gas/water
HZ Target at SHL	-8,493'	11,898'			Overpressure shale/sand- Oil/Gas
Wolfcamp	-8,612'	12,017'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,644'	12,049'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,901'	12,306'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	5,306'	Oil
Avalon	8,925'	Oil
First Bone Sand	10,005'	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 1,338' and circulating cement back to surface.

4. Casing Program:

All casing 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	1338	1.17	1.62	4.93	5.26
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5270	1.75	1.72	2.95	3.35
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	12256	1.08	1.25	1.78	1.22
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606 TVD	21881 11882	1.32	1.42	1.21	1.00 1.62



7 5/8" casing will be set at 12,256' MD/11,882' TVD at 91° Inc. Stress calculations on 5 1/2" casing performed assuming 21,881' depth. Actual max vertical depth is 11,882'.

Cementing Program:

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

String Type	Hole Size	Casing Size	Setting Depth	Sacks	Type of cmt	Lead Yield ft ³ /sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Tail Yield ft ³ /sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1338	834	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	330	Tail, 14.8 ppg, Class C,	1.349	6.51	1000	100%
Int1	12.25	9.625	5270	1542	0.125pps Poly-E-Flake					1% CaCl ₂ , 0.125pps Celo-Flake				
					Lead, 12.8 ppg, Class C 5% Salt,	1.79	9.74	0	154	Tail, 14.8 ppg, Class C,	1.33	6.37	4970	100%
					0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal					0.1% HR 800 .125 pps Poly-E-Flake				
Int2	8.75	7.625	12256	375	Lite Fill, 9.5 ppg, Class C 3lb/sk	2.13	5.97	4270	94	NeoCem 14.8 ppg, Class C	1.33	6.29	11256	50%
					Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake					0.25 pps Cello-Flake, 2% CaCl ₂				
Prod	6.75	5.5	21881	792	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	11256						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 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 .22 psi/ft, but not to exceed 70 percent of the minimum internal yield, as per Onshore Order # 2 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 – 1,338'	Fresh - Gel	8.6-8.8	28-34	N/c
1,338' – 12,256'	Brine	8.8-10.2	28-34	N/c
12,256' – 21,881' Lateral	Oil Base	10.0-12.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 10-11 ppg. In order to maintain hole stability, mud weights up to 12 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 11,882' TVD (deepest point of the well) is 160F with an estimated maximum bottom-hole pressure (BHP) at the same point of 7,414 psig (based on 12 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/Escapes 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.

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 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 Cactus 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 1/2" casing due to the tight clearance with 6 3/4" hole and 5 1/2" casing due to tight clearances.

Released to Imaging: 5/2/2022 7:59:28 AM

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Colorado East Pad
Well: Breckenridge Fed Com 604H
Wellbore: OH
Design: Plan #2



Azimuths to Grid North
True North: -0.51°
Magnetic North: 5.89°

Magnetic Field
Strength: 47597.5nT
Dip Angle: 59.78°
Date: 2/1/2022
Model: HDGM2022

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

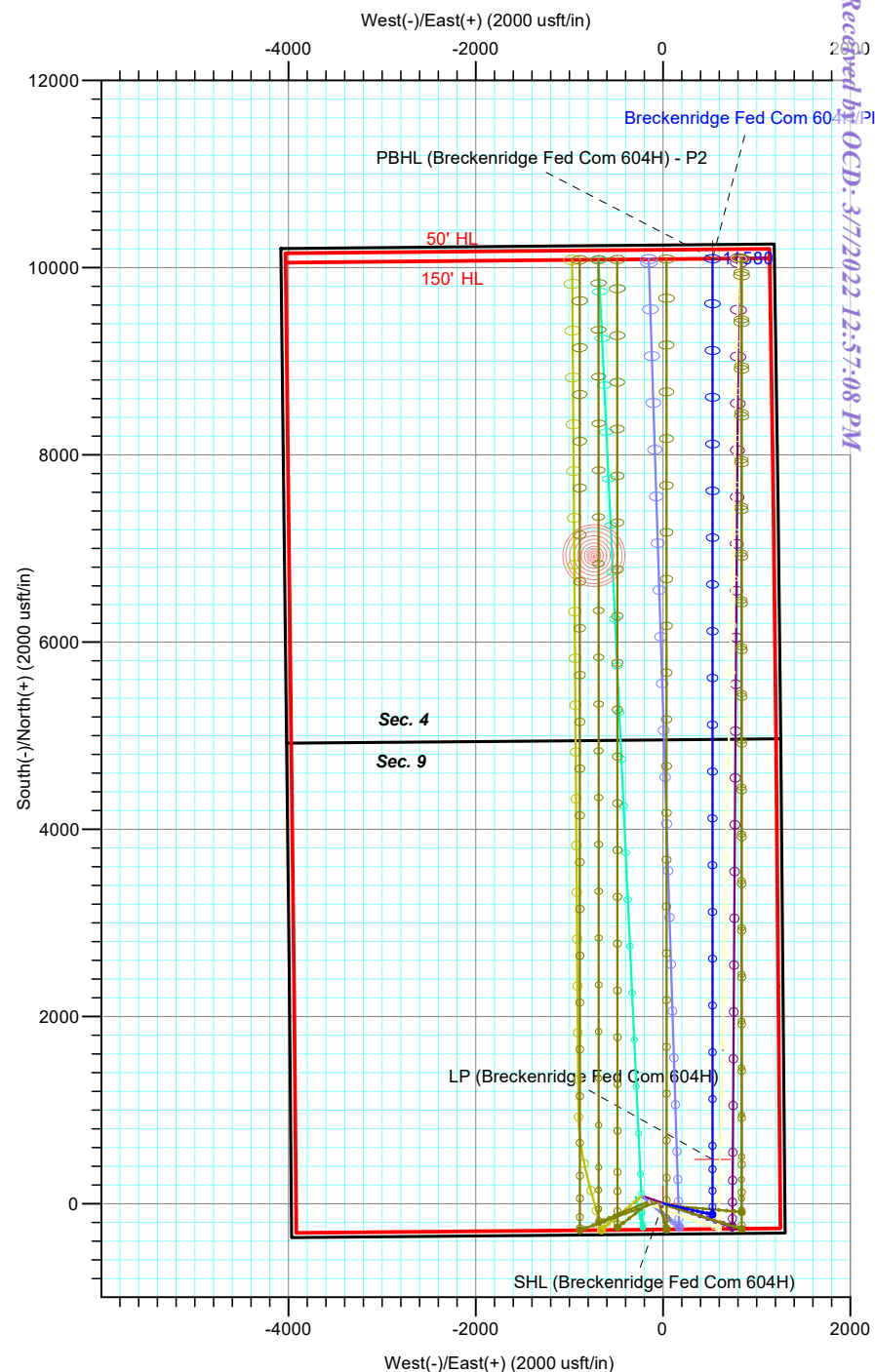
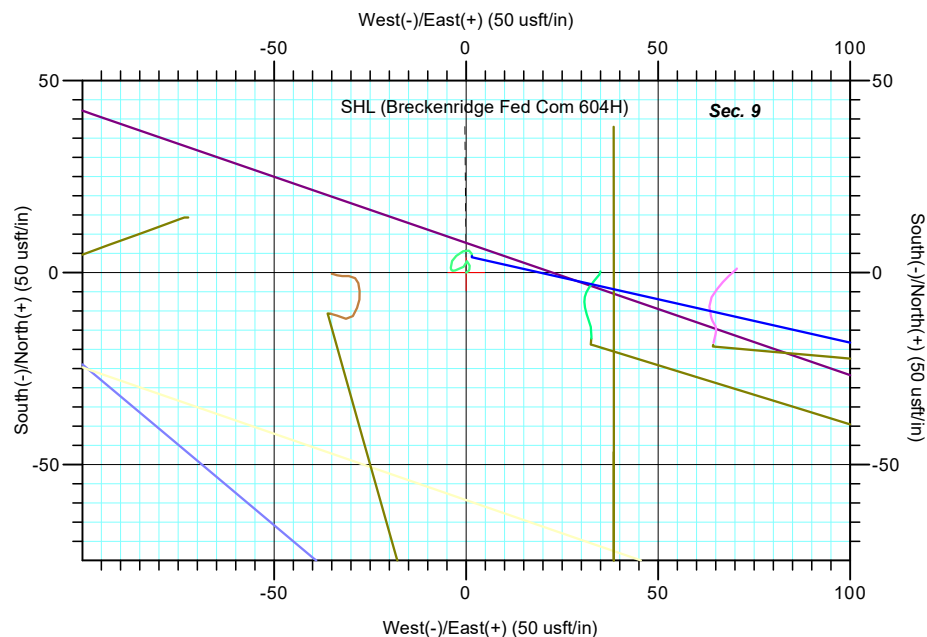


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (Breckenridge Fed Com 604H)	11882.61	475.95	528.65	447653.35	840328.95	32.226977	-103.366438
PBHL (Breckenridge Fed Com 604H)	15820.27	10096.60	528.65	457274.00	840328.95	32.253419	-103.366158
SHL (Breckenridge Fed Com 604H)	0.00	0.00	0.00	447177.40	839800.30	32.225682	-103.368161

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1298.00	0.80	195.00	1297.83	4.30	1.55	0.00	0.00	4.38	Start Drop -2.00
1338.00	0.00	0.00	1337.83	4.03	1.48	2.00	180.00	4.10	Start 62.00 hold at 1338.00 MD
1400.00	0.00	0.00	1399.83	4.03	1.48	0.00	0.00	4.10	Start Build 1.00
2019.34	6.19	102.72	2017.96	-3.33	34.10	1.00	102.72	-1.55	Start 4389.53 hold at 2019.34 MD
6408.86	6.19	102.72	6381.87	-107.63	496.03	0.00	0.00	-81.55	Start Drop -1.00
7028.20	0.00	0.00	7000.00	-115.00	528.65	1.00	180.00	-87.20	Start 4309.93 hold at 7028.20 MD
11338.14	0.00	0.00	11309.93	-115.00	528.65	0.00	0.00	-87.20	Start Build 10.00
12256.14	91.80	0.00	11882.61	475.95	528.65	10.00	0.00	502.95	Start 9625.39 hold at 12256.14 MD
921881.53	91.80	0.00	11580.27	10096.60	528.65	0.00	0.00	0110.43	TD at 21881.53



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

Plan: Plan #2 (Breckenridge Fed Com 604H/OH)
Colorado East Pad
Created By: RDW
Date: 16:23, February 03 2022
Approved: _____
Date: _____

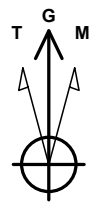
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Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Colorado East Pad
Well: Breckenridge Fed Com 604H
Wellbore: OH
Design: Plan #2

3374' GE + 30' KB @ 3405.00usft



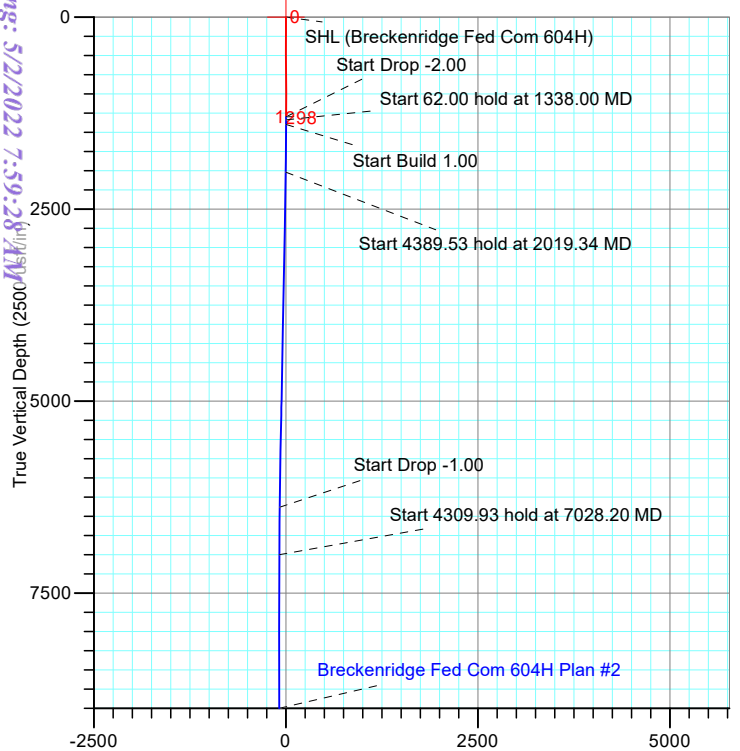
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Zone: New Mexico Eastern Zone

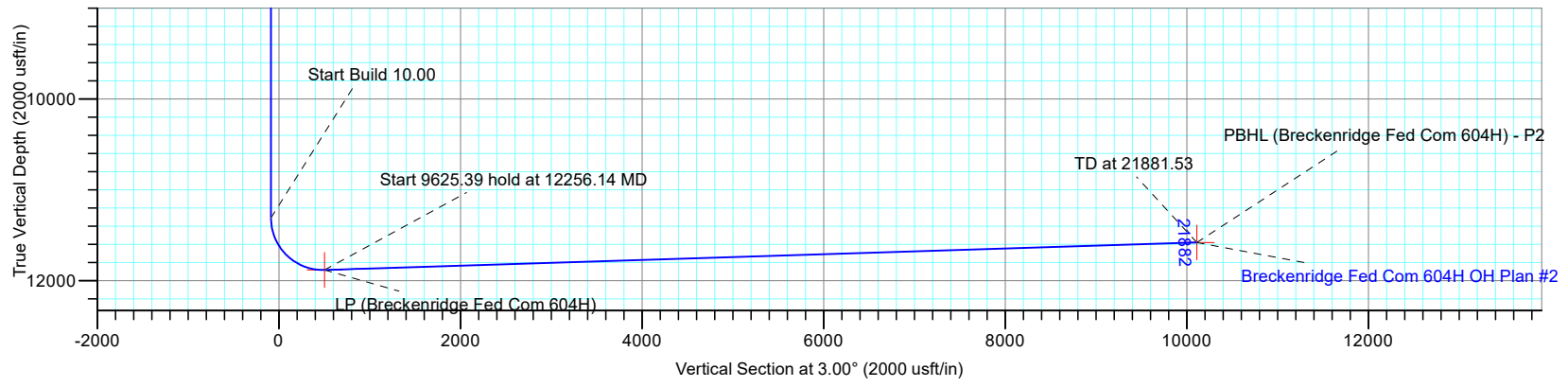
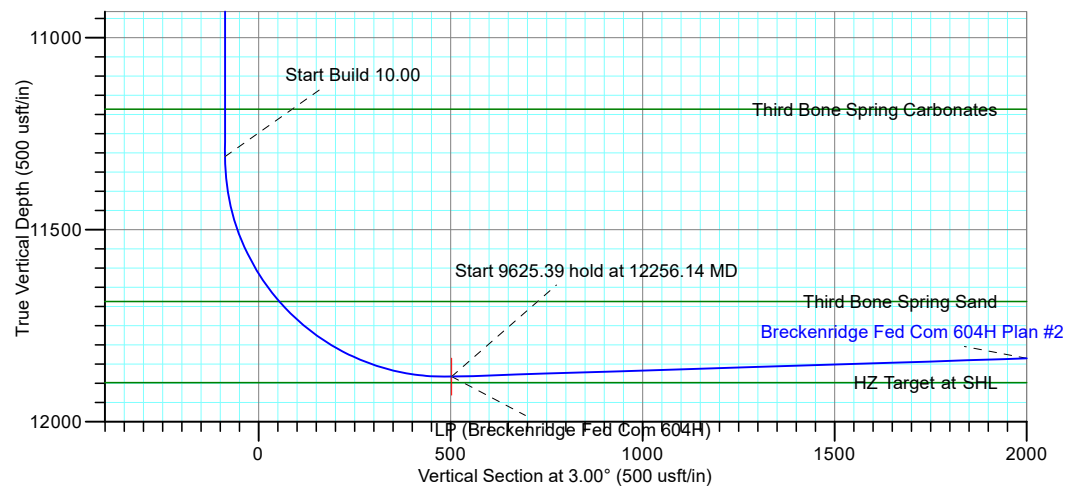
SECTION DETAILS



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1298.00	0.80	195.00	1297.83	4.30	1.55	0.00	0.00	4.38	Start Drop -2.00
1338.00	0.00	0.00	1337.83	4.03	1.48	2.00	180.00	4.10	Start 62.00 hold at 1338.00 MD
1400.00	0.00	0.00	1399.83	4.03	1.48	0.00	0.00	4.10	Start Build 1.00
2019.34	6.19	102.72	2017.96	-3.33	34.10	1.00	102.72	-1.55	Start 4389.53 hold at 2019.34 MD
6408.86	6.19	102.72	6381.87	-107.63	496.03	0.00	0.00	-81.55	Start Drop -1.00
7028.20	0.00	0.00	7000.00	-115.00	528.65	1.00	180.00	-87.20	Start 4309.93 hold at 7028.20 MD
11338.14	0.00	0.00	11309.93	-115.00	528.65	0.00	0.00	-87.20	Start Build 10.00
12256.14	91.80	0.00	11882.61	475.95	528.65	10.00	0.00	502.95	Start 9625.39 hold at 12256.14 MD
21881.53	91.80	0.00	11580.27	10096.60	528.65	0.00	0.00	10110.43	TD at 21881.53

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PBHL (Breckenridge Fed Com 604H)	11580.27	10096.60	528.65	32.253419	-103.366158
SHL (Breckenridge Fed Com 604H)	0.00	0.00	0.00	32.225682	-103.368161



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

Plan: Plan #2 (Breckenridge Fed Com 604H/OH)
Colorado East Pad
Created By: RDW
Date: 16:24, February 03 2022
Approved: _____
Date: _____



Franklin Mountain Energy

Lea County, NM (NAD83)

Colorado East Pad

Breckenridge Fed Com 604H

OH

Plan: Plan #2

Standard Planning Report

03 February, 2022





Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Breckenridge Fed Com 604H
Company:	Franklin Mountain Energy	TVD Reference:	3374' GE + 30' KB @ 3405.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	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		Colorado East Pad				
Site Position:		Northing:	447,176.22	usft	Latitude:	32.225682
From:	Map	Easting:	839,660.39	usft	Longitude:	-103.368614
Position Uncertainty:		0.00	usft	Slot Radius:	13.200	in

Well	Breckenridge Fed Com 604H					
Well Position	+N/-S	0.00 usft	Northing:	447,177.40 usft	Latitude:	32.225682
	+E/-W	0.00 usft	Easting:	839,800.30 usft	Longitude:	-103.368162
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,375.00 usft
Grid Convergence:		0.51 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	2/1/2022	6.40	59.78	47,597.50000000

Design	Plan #2				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	1,298.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	11,553.52	0.00	0.00	3.00	

Plan Survey Tool Program	Date	2/3/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	213.00	1,298.00	Survey #1 (OH)	OWSG (Rev2) MWD OWSG MWD - Standard	
2	1,298.00	21,881.53	Plan #2 (OH)	OWSG (Rev2) MWD+IFR1 OWSG MWD + IFR1 + Mult	



Planning Report



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Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
1,298.00	0.80	195.00	1,297.83	4.30	1.55	0.00	0.00	0.00	0.00	
1,338.00	0.00	0.00	1,337.83	4.03	1.48	2.00	-2.00	0.00	180.00	
1,400.00	0.00	0.00	1,399.83	4.03	1.48	0.00	0.00	0.00	0.00	
2,019.34	6.19	102.72	2,017.96	-3.33	34.10	1.00	1.00	0.00	102.72	
6,408.87	6.19	102.72	6,381.87	-107.63	496.03	0.00	0.00	0.00	0.00	
7,028.20	0.00	0.00	7,000.00	-115.00	528.65	1.00	-1.00	0.00	180.00	
11,338.14	0.00	0.00	11,309.93	-115.00	528.65	0.00	0.00	0.00	0.00	
12,256.14	91.80	0.00	11,882.61	475.95	528.65	10.00	10.00	0.00	0.00	
21,881.53	91.80	0.00	11,580.27	10,096.60	528.65	0.00	0.00	0.00	0.00	PBHL (Breckenridge)



Planning Report



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Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
213.00	0.40	56.00	213.00	0.42	0.62	0.45	0.19	0.19	0.00
306.00	1.50	1.47	305.99	1.81	0.92	1.86	1.41	1.18	-58.63
400.00	0.90	263.00	399.97	2.95	0.22	2.96	1.98	-0.64	-104.76
495.00	0.70	132.00	494.97	2.47	-0.09	2.47	1.54	-0.21	-137.89
590.00	1.40	241.00	589.96	1.52	-0.68	1.49	1.85	0.74	114.74
685.00	1.50	252.00	684.93	0.58	-2.88	0.43	0.31	0.11	11.58
780.00	1.30	3.50	779.91	1.27	-3.99	1.06	2.44	-0.21	117.37
874.00	0.90	21.00	873.89	3.02	-3.66	2.83	0.55	-0.43	18.62
969.00	1.30	51.00	968.88	4.40	-2.56	4.26	0.72	0.42	31.58
1,064.00	1.30	63.00	1,063.85	5.56	-0.76	5.52	0.29	0.00	12.63
1,160.00	0.80	120.00	1,159.84	5.72	0.79	5.76	1.14	-0.52	59.37
1,255.00	0.70	162.00	1,254.83	4.84	1.54	4.91	0.57	-0.11	44.21
1,298.00	0.80	195.00	1,297.83	4.30	1.55	4.38	1.02	0.23	76.74
Start Drop -2.00									
1,300.00	0.76	195.00	1,299.83	4.27	1.54	4.35	2.00	-2.00	0.00
1,338.00	0.00	0.00	1,337.83	4.03	1.48	4.10	2.00	-2.00	0.00
Start 62.00 hold at 1338.00 MD									
1,385.17	0.00	0.00	1,385.00	4.03	1.48	4.10	0.00	0.00	0.00
Salado									
1,400.00	0.00	0.00	1,399.83	4.03	1.48	4.10	0.00	0.00	0.00
Start Build 1.00									
1,500.00	1.00	102.72	1,499.82	3.84	2.33	3.95	1.00	1.00	0.00
1,600.00	2.00	102.72	1,599.79	3.26	4.88	3.51	1.00	1.00	0.00
1,700.00	3.00	102.72	1,699.69	2.30	9.14	2.78	1.00	1.00	0.00
1,800.00	4.00	102.72	1,799.50	0.96	15.09	1.74	1.00	1.00	0.00
1,900.00	5.00	102.72	1,899.19	-0.77	22.74	0.42	1.00	1.00	0.00
2,000.00	6.00	102.72	1,998.73	-2.88	32.09	-1.20	1.00	1.00	0.00
2,019.34	6.19	102.72	2,017.96	-3.33	34.10	-1.55	1.00	1.00	0.00
Start 4389.53 hold at 2019.34 MD									
2,100.00	6.19	102.72	2,098.15	-5.25	42.58	-3.02	0.00	0.00	0.00
2,200.00	6.19	102.72	2,197.57	-7.63	53.11	-4.84	0.00	0.00	0.00
2,300.00	6.19	102.72	2,296.98	-10.00	63.63	-6.66	0.00	0.00	0.00
2,400.00	6.19	102.72	2,396.40	-12.38	74.15	-8.49	0.00	0.00	0.00
2,500.00	6.19	102.72	2,495.82	-14.76	84.68	-10.31	0.00	0.00	0.00
2,600.00	6.19	102.72	2,595.23	-17.13	95.20	-12.13	0.00	0.00	0.00
2,700.00	6.19	102.72	2,694.65	-19.51	105.73	-13.95	0.00	0.00	0.00
2,800.00	6.19	102.72	2,794.06	-21.88	116.25	-15.78	0.00	0.00	0.00
2,900.00	6.19	102.72	2,893.48	-24.26	126.77	-17.60	0.00	0.00	0.00
2,956.85	6.19	102.72	2,950.00	-25.61	132.76	-18.63	0.00	0.00	0.00
Base Salt									
3,000.00	6.19	102.72	2,992.90	-26.64	137.30	-19.42	0.00	0.00	0.00
3,100.00	6.19	102.72	3,092.31	-29.01	147.82	-21.24	0.00	0.00	0.00
3,200.00	6.19	102.72	3,191.73	-31.39	158.34	-23.07	0.00	0.00	0.00
3,300.00	6.19	102.72	3,291.15	-33.76	168.87	-24.89	0.00	0.00	0.00
3,400.00	6.19	102.72	3,390.56	-36.14	179.39	-26.71	0.00	0.00	0.00
3,500.00	6.19	102.72	3,489.98	-38.52	189.91	-28.53	0.00	0.00	0.00
3,600.00	6.19	102.72	3,589.40	-40.89	200.44	-30.36	0.00	0.00	0.00
3,700.00	6.19	102.72	3,688.81	-43.27	210.96	-32.18	0.00	0.00	0.00
3,800.00	6.19	102.72	3,788.23	-45.65	221.48	-34.00	0.00	0.00	0.00
3,900.00	6.19	102.72	3,887.64	-48.02	232.01	-35.82	0.00	0.00	0.00
4,000.00	6.19	102.72	3,987.06	-50.40	242.53	-37.65	0.00	0.00	0.00
4,100.00	6.19	102.72	4,086.48	-52.77	253.06	-39.47	0.00	0.00	0.00



Planning Report



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Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	6.19	102.72	4,185.89	-55.15	263.58	-41.29	0.00	0.00	0.00
4,234.31	6.19	102.72	4,220.00	-55.96	267.19	-41.92	0.00	0.00	0.00
Potential Losses									
4,300.00	6.19	102.72	4,285.31	-57.53	274.10	-43.11	0.00	0.00	0.00
4,400.00	6.19	102.72	4,384.73	-59.90	284.63	-44.94	0.00	0.00	0.00
4,467.67	6.19	102.72	4,452.00	-61.51	291.75	-46.17	0.00	0.00	0.00
Capitan Reef									
4,500.00	6.19	102.72	4,484.14	-62.28	295.15	-46.76	0.00	0.00	0.00
4,600.00	6.19	102.72	4,583.56	-64.65	305.67	-48.58	0.00	0.00	0.00
4,700.00	6.19	102.72	4,682.98	-67.03	316.20	-50.41	0.00	0.00	0.00
4,800.00	6.19	102.72	4,782.39	-69.41	326.72	-52.23	0.00	0.00	0.00
4,900.00	6.19	102.72	4,881.81	-71.78	337.24	-54.05	0.00	0.00	0.00
5,000.00	6.19	102.72	4,981.22	-74.16	347.77	-55.87	0.00	0.00	0.00
5,100.00	6.19	102.72	5,080.64	-76.53	358.29	-57.70	0.00	0.00	0.00
5,200.00	6.19	102.72	5,180.06	-78.91	368.81	-59.52	0.00	0.00	0.00
5,261.30	6.19	102.72	5,241.00	-80.37	375.27	-60.64	0.00	0.00	0.00
Lamar									
5,300.00	6.19	102.72	5,279.47	-81.29	379.34	-61.34	0.00	0.00	0.00
5,326.68	6.19	102.72	5,306.00	-81.92	382.15	-61.83	0.00	0.00	0.00
Bell Canyon									
5,400.00	6.19	102.72	5,378.89	-83.66	389.86	-63.16	0.00	0.00	0.00
5,500.00	6.19	102.72	5,478.31	-86.04	400.39	-64.99	0.00	0.00	0.00
5,600.00	6.19	102.72	5,577.72	-88.42	410.91	-66.81	0.00	0.00	0.00
5,700.00	6.19	102.72	5,677.14	-90.79	421.43	-68.63	0.00	0.00	0.00
5,800.00	6.19	102.72	5,776.55	-93.17	431.96	-70.45	0.00	0.00	0.00
5,900.00	6.19	102.72	5,875.97	-95.54	442.48	-72.28	0.00	0.00	0.00
6,000.00	6.19	102.72	5,975.39	-97.92	453.00	-74.10	0.00	0.00	0.00
6,100.00	6.19	102.72	6,074.80	-100.30	463.53	-75.92	0.00	0.00	0.00
6,200.00	6.19	102.72	6,174.22	-102.67	474.05	-77.74	0.00	0.00	0.00
6,250.07	6.19	102.72	6,224.00	-103.86	479.32	-78.66	0.00	0.00	0.00
Cherry Canyon									
6,300.00	6.19	102.72	6,273.64	-105.05	484.57	-79.57	0.00	0.00	0.00
6,408.87	6.19	102.72	6,381.87	-107.63	496.03	-81.55	0.00	0.00	0.00
Start Drop -1.00									
6,500.00	5.28	102.72	6,472.54	-109.64	504.92	-83.09	1.00	-1.00	0.00
6,600.00	4.28	102.72	6,572.19	-111.48	513.05	-84.50	1.00	-1.00	0.00
6,700.00	3.28	102.72	6,671.98	-112.93	519.48	-85.61	1.00	-1.00	0.00
6,800.00	2.28	102.72	6,771.86	-114.00	524.22	-86.43	1.00	-1.00	0.00
6,900.00	1.28	102.72	6,871.81	-114.68	527.25	-86.96	1.00	-1.00	0.00
7,000.00	0.28	102.72	6,971.80	-114.98	528.58	-87.19	1.00	-1.00	0.00
7,028.20	0.00	0.00	7,000.00	-115.00	528.65	-87.20	1.00	-1.00	0.00
Start 4309.93 hold at 7028.20 MD									
7,100.00	0.00	0.00	7,071.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,200.00	0.00	0.00	7,171.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,271.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,400.00	0.00	0.00	7,371.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,500.00	0.00	0.00	7,471.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,600.00	0.00	0.00	7,571.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,617.20	0.00	0.00	7,589.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Brushy Canyon									
7,700.00	0.00	0.00	7,671.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,800.00	0.00	0.00	7,771.80	-115.00	528.65	-87.20	0.00	0.00	0.00
7,900.00	0.00	0.00	7,871.80	-115.00	528.65	-87.20	0.00	0.00	0.00



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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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,000.00	0.00	0.00	7,971.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,100.00	0.00	0.00	8,071.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,200.00	0.00	0.00	8,171.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,300.00	0.00	0.00	8,271.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,400.00	0.00	0.00	8,371.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,500.00	0.00	0.00	8,471.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,600.00	0.00	0.00	8,571.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,700.00	0.00	0.00	8,671.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,800.00	0.00	0.00	8,771.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,900.00	0.00	0.00	8,871.80	-115.00	528.65	-87.20	0.00	0.00	0.00
8,932.20	0.00	0.00	8,904.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Bone Spring Lime									
8,953.20	0.00	0.00	8,925.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Avalon									
9,000.00	0.00	0.00	8,971.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,100.00	0.00	0.00	9,071.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,152.20	0.00	0.00	9,124.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Chert Zone									
9,200.00	0.00	0.00	9,171.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,300.00	0.00	0.00	9,271.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,400.00	0.00	0.00	9,371.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,500.00	0.00	0.00	9,471.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,600.00	0.00	0.00	9,571.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,700.00	0.00	0.00	9,671.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,800.00	0.00	0.00	9,771.80	-115.00	528.65	-87.20	0.00	0.00	0.00
9,900.00	0.00	0.00	9,871.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,000.00	0.00	0.00	9,971.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,033.20	0.00	0.00	10,005.00	-115.00	528.65	-87.20	0.00	0.00	0.00
First Bone Spring Sand									
10,100.00	0.00	0.00	10,071.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,134.20	0.00	0.00	10,106.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Second Bone Spring Carbonates									
10,200.00	0.00	0.00	10,171.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,300.00	0.00	0.00	10,271.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,400.00	0.00	0.00	10,371.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,500.00	0.00	0.00	10,471.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,600.00	0.00	0.00	10,571.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,657.20	0.00	0.00	10,629.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Second Bone Spring Sand									
10,700.00	0.00	0.00	10,671.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,800.00	0.00	0.00	10,771.80	-115.00	528.65	-87.20	0.00	0.00	0.00
10,900.00	0.00	0.00	10,871.80	-115.00	528.65	-87.20	0.00	0.00	0.00
11,000.00	0.00	0.00	10,971.80	-115.00	528.65	-87.20	0.00	0.00	0.00
11,100.00	0.00	0.00	11,071.80	-115.00	528.65	-87.20	0.00	0.00	0.00
11,200.00	0.00	0.00	11,171.80	-115.00	528.65	-87.20	0.00	0.00	0.00
11,214.20	0.00	0.00	11,186.00	-115.00	528.65	-87.20	0.00	0.00	0.00
Third Bone Spring Carbonates									
11,300.00	0.00	0.00	11,271.80	-115.00	528.65	-87.20	0.00	0.00	0.00
11,338.14	0.00	0.00	11,309.93	-115.00	528.65	-87.20	0.00	0.00	0.00
Start Build 10.00									
11,350.00	1.19	0.00	11,321.80	-114.88	528.65	-87.08	10.00	10.00	0.00
11,400.00	6.19	0.00	11,371.68	-111.66	528.65	-83.87	10.00	10.00	0.00
11,450.00	11.19	0.00	11,421.09	-104.11	528.65	-76.33	10.00	10.00	0.00



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Breckenridge Fed Com 604H
Company:	Franklin Mountain Energy	TVD Reference:	3374' GE + 30' KB @ 3405.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,500.00	16.19	0.00	11,469.65	-92.29	528.65	-64.52	10.00	10.00	0.00
11,550.00	21.19	0.00	11,517.00	-76.27	528.65	-48.53	10.00	10.00	0.00
11,600.00	26.19	0.00	11,562.77	-56.19	528.65	-28.47	10.00	10.00	0.00
11,650.00	31.19	0.00	11,606.62	-32.20	528.65	-4.51	10.00	10.00	0.00
11,700.00	36.19	0.00	11,648.21	-4.48	528.65	23.17	10.00	10.00	0.00
11,749.69	41.16	0.00	11,687.00	26.56	528.65	54.17	10.00	10.00	0.00
Third Bone Spring Sand									
11,750.00	41.19	0.00	11,687.23	26.77	528.65	54.37	10.00	10.00	0.00
11,800.00	46.19	0.00	11,723.38	61.29	528.65	88.85	10.00	10.00	0.00
11,850.00	51.19	0.00	11,756.37	98.83	528.65	126.34	10.00	10.00	0.00
11,900.00	56.19	0.00	11,785.98	139.11	528.65	166.56	10.00	10.00	0.00
11,950.00	61.19	0.00	11,811.95	181.81	528.65	209.21	10.00	10.00	0.00
12,000.00	66.19	0.00	11,834.11	226.62	528.65	253.95	10.00	10.00	0.00
12,050.00	71.19	0.00	11,852.28	273.18	528.65	300.45	10.00	10.00	0.00
12,100.00	76.19	0.00	11,866.32	321.16	528.65	348.36	10.00	10.00	0.00
12,150.00	81.19	0.00	11,876.12	370.17	528.65	397.30	10.00	10.00	0.00
12,200.00	86.19	0.00	11,881.62	419.85	528.65	446.92	10.00	10.00	0.00
12,250.00	91.19	0.00	11,882.77	469.82	528.65	496.82	10.00	10.00	0.00
12,256.14	91.80	0.00	11,882.61	475.95	528.65	502.95	10.00	10.00	0.00
Start 9625.39 hold at 12256.14 MD									
12,300.00	91.80	0.00	11,881.23	519.80	528.65	546.73	0.00	0.00	0.00
12,400.00	91.80	0.00	11,878.09	619.75	528.65	646.54	0.00	0.00	0.00
12,500.00	91.80	0.00	11,874.95	719.70	528.65	746.36	0.00	0.00	0.00
12,600.00	91.80	0.00	11,871.81	819.65	528.65	846.17	0.00	0.00	0.00
12,700.00	91.80	0.00	11,868.67	919.60	528.65	945.98	0.00	0.00	0.00
12,800.00	91.80	0.00	11,865.52	1,019.55	528.65	1,045.80	0.00	0.00	0.00
12,900.00	91.80	0.00	11,862.38	1,119.50	528.65	1,145.61	0.00	0.00	0.00
13,000.00	91.80	0.00	11,859.24	1,219.45	528.65	1,245.43	0.00	0.00	0.00
13,100.00	91.80	0.00	11,856.10	1,319.40	528.65	1,345.24	0.00	0.00	0.00
13,200.00	91.80	0.00	11,852.96	1,419.35	528.65	1,445.05	0.00	0.00	0.00
13,300.00	91.80	0.00	11,849.82	1,519.30	528.65	1,544.87	0.00	0.00	0.00
13,400.00	91.80	0.00	11,846.68	1,619.25	528.65	1,644.68	0.00	0.00	0.00
13,500.00	91.80	0.00	11,843.54	1,719.21	528.65	1,744.50	0.00	0.00	0.00
13,600.00	91.80	0.00	11,840.40	1,819.16	528.65	1,844.31	0.00	0.00	0.00
13,700.00	91.80	0.00	11,837.25	1,919.11	528.65	1,944.12	0.00	0.00	0.00
13,800.00	91.80	0.00	11,834.11	2,019.06	528.65	2,043.94	0.00	0.00	0.00
13,900.00	91.80	0.00	11,830.97	2,119.01	528.65	2,143.75	0.00	0.00	0.00
14,000.00	91.80	0.00	11,827.83	2,218.96	528.65	2,243.56	0.00	0.00	0.00
14,100.00	91.80	0.00	11,824.69	2,318.91	528.65	2,343.38	0.00	0.00	0.00
14,200.00	91.80	0.00	11,821.55	2,418.86	528.65	2,443.19	0.00	0.00	0.00
14,300.00	91.80	0.00	11,818.41	2,518.81	528.65	2,543.01	0.00	0.00	0.00
14,400.00	91.80	0.00	11,815.27	2,618.76	528.65	2,642.82	0.00	0.00	0.00
14,500.00	91.80	0.00	11,812.13	2,718.71	528.65	2,742.63	0.00	0.00	0.00
14,600.00	91.80	0.00	11,808.98	2,818.66	528.65	2,842.45	0.00	0.00	0.00
14,700.00	91.80	0.00	11,805.84	2,918.61	528.65	2,942.26	0.00	0.00	0.00
14,800.00	91.80	0.00	11,802.70	3,018.56	528.65	3,042.08	0.00	0.00	0.00
14,900.00	91.80	0.00	11,799.56	3,118.51	528.65	3,141.89	0.00	0.00	0.00
15,000.00	91.80	0.00	11,796.42	3,218.46	528.65	3,241.70	0.00	0.00	0.00
15,100.00	91.80	0.00	11,793.28	3,318.42	528.65	3,341.52	0.00	0.00	0.00
15,200.00	91.80	0.00	11,790.14	3,418.37	528.65	3,441.33	0.00	0.00	0.00
15,300.00	91.80	0.00	11,787.00	3,518.32	528.65	3,541.15	0.00	0.00	0.00
15,400.00	91.80	0.00	11,783.86	3,618.27	528.65	3,640.96	0.00	0.00	0.00
15,500.00	91.80	0.00	11,780.71	3,718.22	528.65	3,740.77	0.00	0.00	0.00
15,600.00	91.80	0.00	11,777.57	3,818.17	528.65	3,840.59	0.00	0.00	0.00



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Breckenridge Fed Com 604H
Company:	Franklin Mountain Energy	TVD Reference:	3374' GE + 30' KB @ 3405.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,700.00	91.80	0.00	11,774.43	3,918.12	528.65	3,940.40	0.00	0.00	0.00
15,800.00	91.80	0.00	11,771.29	4,018.07	528.65	4,040.22	0.00	0.00	0.00
15,900.00	91.80	0.00	11,768.15	4,118.02	528.65	4,140.03	0.00	0.00	0.00
16,000.00	91.80	0.00	11,765.01	4,217.97	528.65	4,239.84	0.00	0.00	0.00
16,100.00	91.80	0.00	11,761.87	4,317.92	528.65	4,339.66	0.00	0.00	0.00
16,200.00	91.80	0.00	11,758.73	4,417.87	528.65	4,439.47	0.00	0.00	0.00
16,300.00	91.80	0.00	11,755.59	4,517.82	528.65	4,539.29	0.00	0.00	0.00
16,400.00	91.80	0.00	11,752.45	4,617.77	528.65	4,639.10	0.00	0.00	0.00
16,500.00	91.80	0.00	11,749.30	4,717.72	528.65	4,738.91	0.00	0.00	0.00
16,600.00	91.80	0.00	11,746.16	4,817.68	528.65	4,838.73	0.00	0.00	0.00
16,700.00	91.80	0.00	11,743.02	4,917.63	528.65	4,938.54	0.00	0.00	0.00
16,800.00	91.80	0.00	11,739.88	5,017.58	528.65	5,038.35	0.00	0.00	0.00
16,900.00	91.80	0.00	11,736.74	5,117.53	528.65	5,138.17	0.00	0.00	0.00
17,000.00	91.80	0.00	11,733.60	5,217.48	528.65	5,237.98	0.00	0.00	0.00
17,100.00	91.80	0.00	11,730.46	5,317.43	528.65	5,337.80	0.00	0.00	0.00
17,200.00	91.80	0.00	11,727.32	5,417.38	528.65	5,437.61	0.00	0.00	0.00
17,300.00	91.80	0.00	11,724.18	5,517.33	528.65	5,537.42	0.00	0.00	0.00
17,400.00	91.80	0.00	11,721.03	5,617.28	528.65	5,637.24	0.00	0.00	0.00
17,500.00	91.80	0.00	11,717.89	5,717.23	528.65	5,737.05	0.00	0.00	0.00
17,600.00	91.80	0.00	11,714.75	5,817.18	528.65	5,836.87	0.00	0.00	0.00
17,700.00	91.80	0.00	11,711.61	5,917.13	528.65	5,936.68	0.00	0.00	0.00
17,800.00	91.80	0.00	11,708.47	6,017.08	528.65	6,036.49	0.00	0.00	0.00
17,900.00	91.80	0.00	11,705.33	6,117.03	528.65	6,136.31	0.00	0.00	0.00
18,000.00	91.80	0.00	11,702.19	6,216.98	528.65	6,236.12	0.00	0.00	0.00
18,100.00	91.80	0.00	11,699.05	6,316.94	528.65	6,335.94	0.00	0.00	0.00
18,200.00	91.80	0.00	11,695.91	6,416.89	528.65	6,435.75	0.00	0.00	0.00
18,300.00	91.80	0.00	11,692.76	6,516.84	528.65	6,535.56	0.00	0.00	0.00
18,400.00	91.80	0.00	11,689.62	6,616.79	528.65	6,635.38	0.00	0.00	0.00
18,500.00	91.80	0.00	11,686.48	6,716.74	528.65	6,735.19	0.00	0.00	0.00
18,600.00	91.80	0.00	11,683.34	6,816.69	528.65	6,835.01	0.00	0.00	0.00
18,700.00	91.80	0.00	11,680.20	6,916.64	528.65	6,934.82	0.00	0.00	0.00
18,800.00	91.80	0.00	11,677.06	7,016.59	528.65	7,034.63	0.00	0.00	0.00
18,900.00	91.80	0.00	11,673.92	7,116.54	528.65	7,134.45	0.00	0.00	0.00
19,000.00	91.80	0.00	11,670.78	7,216.49	528.65	7,234.26	0.00	0.00	0.00
19,100.00	91.80	0.00	11,667.64	7,316.44	528.65	7,334.08	0.00	0.00	0.00
19,200.00	91.80	0.00	11,664.50	7,416.39	528.65	7,433.89	0.00	0.00	0.00
19,300.00	91.80	0.00	11,661.35	7,516.34	528.65	7,533.70	0.00	0.00	0.00
19,400.00	91.80	0.00	11,658.21	7,616.29	528.65	7,633.52	0.00	0.00	0.00
19,500.00	91.80	0.00	11,655.07	7,716.24	528.65	7,733.33	0.00	0.00	0.00
19,600.00	91.80	0.00	11,651.93	7,816.20	528.65	7,833.14	0.00	0.00	0.00
19,700.00	91.80	0.00	11,648.79	7,916.15	528.65	7,932.96	0.00	0.00	0.00
19,800.00	91.80	0.00	11,645.65	8,016.10	528.65	8,032.77	0.00	0.00	0.00
19,900.00	91.80	0.00	11,642.51	8,116.05	528.65	8,132.59	0.00	0.00	0.00
20,000.00	91.80	0.00	11,639.37	8,216.00	528.65	8,232.40	0.00	0.00	0.00
20,100.00	91.80	0.00	11,636.23	8,315.95	528.65	8,332.21	0.00	0.00	0.00
20,200.00	91.80	0.00	11,633.08	8,415.90	528.65	8,432.03	0.00	0.00	0.00
20,300.00	91.80	0.00	11,629.94	8,515.85	528.65	8,531.84	0.00	0.00	0.00
20,400.00	91.80	0.00	11,626.80	8,615.80	528.65	8,631.66	0.00	0.00	0.00
20,500.00	91.80	0.00	11,623.66	8,715.75	528.65	8,731.47	0.00	0.00	0.00
20,600.00	91.80	0.00	11,620.52	8,815.70	528.65	8,831.28	0.00	0.00	0.00
20,700.00	91.80	0.00	11,617.38	8,915.65	528.65	8,931.10	0.00	0.00	0.00
20,800.00	91.80	0.00	11,614.24	9,015.60	528.65	9,030.91	0.00	0.00	0.00
20,900.00	91.80	0.00	11,611.10	9,115.55	528.65	9,130.73	0.00	0.00	0.00
21,000.00	91.80	0.00	11,607.96	9,215.50	528.65	9,230.54	0.00	0.00	0.00



Planning Report



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Company:	Franklin Mountain Energy	TVD Reference:	3374' GE + 30' KB @ 3405.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
21,100.00	91.80	0.00	11,604.81	9,315.46	528.65	9,330.35	0.00	0.00	0.00	
21,200.00	91.80	0.00	11,601.67	9,415.41	528.65	9,430.17	0.00	0.00	0.00	
21,300.00	91.80	0.00	11,598.53	9,515.36	528.65	9,529.98	0.00	0.00	0.00	
21,400.00	91.80	0.00	11,595.39	9,615.31	528.65	9,629.80	0.00	0.00	0.00	
21,500.00	91.80	0.00	11,592.25	9,715.26	528.65	9,729.61	0.00	0.00	0.00	
21,600.00	91.80	0.00	11,589.11	9,815.21	528.65	9,829.42	0.00	0.00	0.00	
21,700.00	91.80	0.00	11,585.97	9,915.16	528.65	9,929.24	0.00	0.00	0.00	
21,800.00	91.80	0.00	11,582.83	10,015.11	528.65	10,029.05	0.00	0.00	0.00	
21,881.53	91.80	0.00	11,580.27	10,096.60	528.65	10,110.43	0.00	0.00	0.00	
TD at 21881.53										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL (Breckenridge Fe - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	447,177.40	839,800.30	32.225682	-103.368162	
PBHL (Breckenridge F - plan hits target center - Point	0.00	0.01	11,580.27	10,096.60	528.65	457,274.00	840,328.95	32.253419	-103.366158	
LP (Breckenridge Fed - plan hits target center - Point	0.00	0.01	11,882.61	475.95	528.65	447,653.35	840,328.95	32.226977	-103.366438	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
30.00	30.00	Cenozoic Alluvium (surface)				
971.12	971.00	Rustler				
1,385.17	1,385.00	Salado				
2,956.85	2,950.00	Base Salt				
4,234.31	4,220.00	Potential Losses				
4,467.67	4,452.00	Capitan Reef				
5,261.30	5,241.00	Lamar				
5,326.68	5,306.00	Bell Canyon				
6,250.07	6,224.00	Cherry Canyon				
7,617.20	7,589.00	Brushy Canyon				
8,932.20	8,904.00	Bone Spring Lime				
8,953.20	8,925.00	Avalon				
9,152.20	9,124.00	Chert Zone				
10,033.20	10,005.00	First Bone Spring Sand				
10,134.20	10,106.00	Second Bone Spring Carbonates				
10,657.20	10,629.00	Second Bone Spring Sand				
11,214.20	11,186.00	Third Bone Spring Carbonates				
11,749.69	11,687.00	Third Bone Spring Sand				



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Breckenridge Fed Com 604H
Company:	Franklin Mountain Energy	TVD Reference:	3374' GE + 30' KB @ 3405.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	3374' GE + 30' KB @ 3405.00usft
Site:	Colorado East Pad	North Reference:	Grid
Well:	Breckenridge Fed Com 604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,298.00	1,297.83	4.30	1.55	Start Drop -2.00
1,338.00	1,337.83	4.03	1.48	Start 62.00 hold at 1338.00 MD
1,400.00	1,399.83	4.03	1.48	Start Build 1.00
2,019.34	2,017.96	-3.33	34.10	Start 4389.53 hold at 2019.34 MD
6,408.87	6,381.87	-107.63	496.03	Start Drop -1.00
7,028.20	7,000.00	-115.00	528.65	Start 4309.93 hold at 7028.20 MD
11,338.14	11,309.93	-115.00	528.65	Start Build 10.00
12,256.14	11,882.61	475.95	528.65	Start 9625.39 hold at 12256.14 MD
21,881.53	11,580.27	10,096.60	528.65	TD at 21881.53

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
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District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 87658

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 87658
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	PREVIOUS COA's APLY	5/2/2022