

District I1625 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 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

Form C-101
August 1, 2011

Permit 370257

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address Franklin Mountain Energy 3, LLC 44 Cook Street Denver, CO 80206		2. OGRID Number 331595
		3. API Number 30-025-53286
4. Property Code 336112	5. Property Name RAMBO STATE COM	6. Well No. 503H

7. Surface Location

UL - Lot O	Section 5	Township 19S	Range 35E	Lot Idn O	Feet From 172	N/S Line S	Feet From 2379	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot O	Section 17	Township 19S	Range 35E	Lot Idn O	Feet From 100	N/S Line S	Feet From 2290	E/W Line E	County Lea
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9. Pool Information

SCHARB;BONE SPRING	55610
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3857
16. Multiple N	17. Proposed Depth 20782	18. Formation Bone Spring	19. Contractor	20. Spud Date 9/1/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1861	1431	0
Int1	12.25	9.625	40	4092	866	0
Prod	8.75	7	32	9478	445	3092
Prod	8.75	5.5	20	20782	2821	9478

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	10000	5000	CACTUS

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

Printed Name: Electronically filed by Rachael A Overbey

Title: Project Manager

Email Address: roverbey@fmellc.com

Date: 7/18/2024

Phone: 303-570-4057

OIL CONSERVATION DIVISION

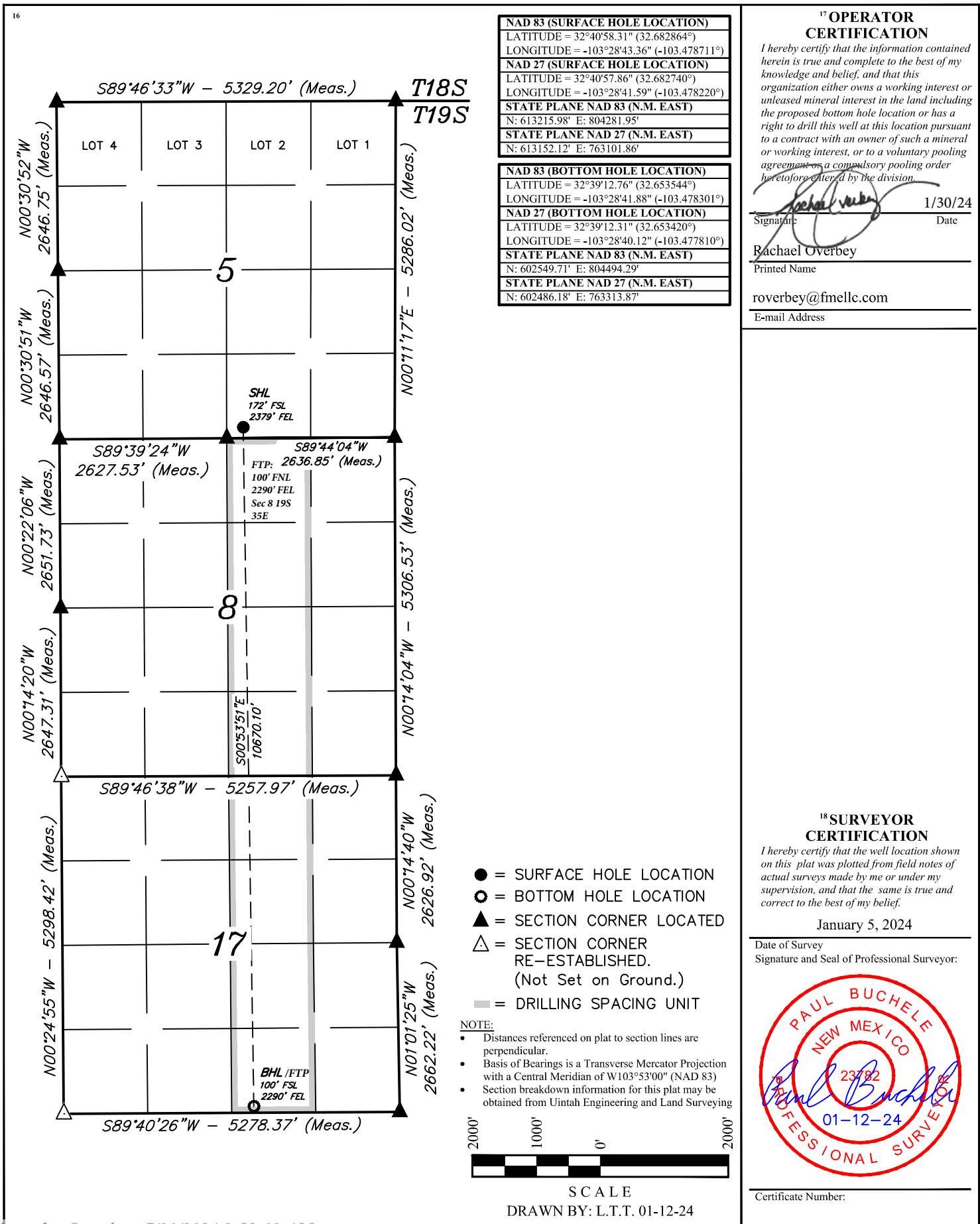
Approved By: Paul F Kautz

Title: Geologist

Approved Date: 7/31/2024

Expiration Date: 7/31/2026

Conditions of Approval Attached

☐ AMENDED REPORT

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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions
Permit 370257

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Franklin Mountain Energy 3, LLC [331595] 44 Cook Street Denver, CO 80206	API Number: 30-025-53286
	Well: RAMBO STATE COM #503H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud



Rambo State Com 503H

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)	3,855'	30'	30'	0	Sand/Gravels/Unconsolidated
Rustler	2074	1,811'			Carbonates
Salado	1737	2,148'			Salt, Anhydrite & Clastics
Base Salt	717	3,168'			Shaley Carbonate & Shale
Yates	436	3,450'			Anhydrite/Shale
Seven Rivers	6	3,879'			Interbedded Shale/Carbonate
Queen	-765	4,650'			Sandstone & Dolomite & Anhydrite
Delaware Mtn Group	-2299	6,184'			Sandstone/Carb/Shale - oil/gas/water
Bone Spring Lime	-3825	7,710'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-5468	9,353'			Sandstone - oil/gas/water
Second Bone Spring Carbonate	-5728	9,613'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-6035	9,920'			Sandstone - oil/gas/water
HZ Target	-6150	10,035'			Sandstone - oil/gas/water
Third Bone Spring Carbonate	-6415	10,300'			Shale/Carbonates - oil/gas

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	6,184'	Oil
1 st Bone Spring Sand	9,353'	Oil
2 nd Bone Spring Carb	9,613'	Oil
2 nd Bone Spring Sand	9,920'	Oil
3 rd Bone Spring Sand	N/A	Oil
Wolfcamp	N/A	Oil
Wolfcamp B	N/A	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 1,861' and circulating cement back to surface.

4. **Casing Program:**

All casing strings will be run new.

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	1,861	1.03	1.17	4.23	4.51
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	4,092	2.05	2.21	3.47	3.95
Production 7"	32	HCP-110	12460	10760	1025	CDC-HTQ 1053	9,478	1.94	2.43	2.54	2.61
Production 5 1/2"	20	HCP-110	12640	12200	641	CDC-HTQ 667	11,304 10,035	1.15	2.31	1.97	2.05 2.22

Tapered production string will be ran with a X-over installed at the KOP of 9,478'.



Cementing Program:

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

To increase efficiency of drilling operations and minimize disturbance of the area the batch-drilling approach will be used.

Off-line cementing may be utilized for Surface, Intermediate, and Production strings to further optimization of drilling process and reduction of disturbance.

String Type	Hole Size	Casing		Sacks	Type of cmt	Lead			Sacks	Type of cmt	Tail			TOC	Excess
		Size	Setting Depth			Yield ft3/sk	Water gal/sk	TOC ft			Yield ft3/sk	Water gal/sk	TOC		
Surf	17.5	13.375	1,861	990	85:15 Compass Poz, 12.8 ppg Class C, 5%Gel, 3#/sk Kol Seal, 4.64#/sk Salt	2.05	11.12	0	441	Tail, 14.8 ppg, 100% Class C, 1%CaCl2, 0.1%	1.34	6.35	0	100%	
Int1	12.25	9.625	4,092	665	Lead, 11.3 ppg, HSLD 82 10% Gel, 4% STE, 2#/sk, Gyp Seal	2.74	16.31	0	201	Econolite Tail, 14.8 ppg, 100% Class C, 0.08% C-51	1.33	6.33	1,248	100%	
Prod	8.75	7	9,478	445	HSLD 9420, 10.5 ppg, Class C, 1#/sk Salt, 4% STE 1% C-45	3.99	25.51	3,092						100%	
Prod	8.75	5.5	20,782						2821	HSLD 80, 13.ppg , 32#/sk Salt, 4% STE, 1#/sk Gyp Seal	1.52	7.59	9,478	50%	

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 3,500/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 3,500/250 psig.

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 – 1,861'	Fresh - Gel	8.6-8.8	28-34	N/c
1,861' – 4,092'	Brine	8.8-10.2	28-34	N/c
4,092' – 10,378'	Brine	8.8-10.2	28-34	N/c
10,378' – 20,782' Lateral	Oil Base	9.0-11	58-68	3 - 6

The

highest mud weight needed to balance formation is expected to be 9-11 ppg. In order to maintain hole stability, mud weights up to 11 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 kept 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 10,035' TVD (deepest point of the well) is 170F with an estimated maximum bottom-hole pressure (BHP) at the same point of 5,740' psig (based on 11 ppg MW). Hydrogen Sulfide 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.

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 State 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 30 days.

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

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 string. After installation of the first intermediate string the pack-off and lower flanges will be pressure tested to 5000 psi.

Both the surface and intermediate casing strings will be tested as per NMOCD Rules to the one-third of manufacture's rated yield pressure, no less than 600 psi, but not greater than 1,500 psi.

14. Additional variance requests

A. Casing.

1. Variance is requested to wave/reduce the centralizer requirements for the 7" and 5 1/2" production casing due to the tight clearance with 8 3/4" hole.



Franklin Mountain Energy LLC

PV_Lea County, NM(N83-NME3001)

Foxtail_Rambo Mid Pad

**(A02) Rambo State Com 503H - Slot (A02) Rambo State Com
503H**

503H

Plan: APD-Rev01

Standard Planning Report - Geographic

12 February, 2024



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Project	PV_Lea County, NM(N83-NME3001)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Foxtail_Rambo Mid Pad		
Site Position:		Northing:	613,215.71 usft
From:	Map	Easting:	804,251.96 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.68286367
		Longitude:	-103.47880891

Well	(A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H		
Well Position	+N/-S	0.00 usft	Northing: 613,215.98 usft
	+E/-W	0.00 usft	Easting: 804,281.95 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.46 °	Ground Level:	3,855.00 usft

Wellbore	503H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/8/2024	6.23	60.24	47,494.09967020

Design	APD-Rev01			
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	179.31

Plan Survey Tool Program	Date	2/12/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,782.12 APD-Rev01 (503H)	MWD+IFR1+MS OWSG MWD + IFR1 + Multi-S	



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

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	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,120.54	6.31	2.35	2,119.69	23.11	0.95	1.50	1.50	0.00	2.35	
4,385.02	6.31	2.35	4,370.46	271.71	11.14	0.00	0.00	0.00	0.00	
5,015.83	0.00	0.00	5,000.00	306.37	12.56	1.00	-1.00	0.00	180.00	
9,477.87	0.00	0.00	9,462.04	306.37	12.56	0.00	0.00	0.00	0.00	
10,377.87	90.00	173.90	10,035.00	-263.34	73.44	10.00	10.00	0.00	173.90	
10,648.13	90.00	179.31	10,035.00	-533.03	89.45	2.00	0.00	2.00	90.00	
20,782.12	90.00	179.31	10,035.00	-10,666.27	212.34	0.00	0.00	0.00	0.00	02-PBHL(RBSC-503H)



Planning Report - Geographic

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Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
30.00	0.00	0.00	30.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
Cenozoic Alluvium (surface)										
100.00	0.00	0.00	100.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
200.00	0.00	0.00	200.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
300.00	0.00	0.00	300.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
400.00	0.00	0.00	400.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
500.00	0.00	0.00	500.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
600.00	0.00	0.00	600.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
700.00	0.00	0.00	700.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
800.00	0.00	0.00	800.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
900.00	0.00	0.00	900.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	613,215.98	804,281.95	32.68286375	-103.47871144	
1,800.00	1.50	2.35	1,799.99	1.31	0.05	613,217.29	804,282.00	32.68286734	-103.47871123	
1,811.02	1.67	2.35	1,811.00	1.61	0.07	613,217.60	804,282.01	32.68286818	-103.47871118	
Rustler										
1,900.00	3.00	2.35	1,899.91	5.23	0.21	613,221.21	804,282.16	32.68287812	-103.47871061	
2,000.00	4.50	2.35	1,999.69	11.77	0.48	613,227.75	804,282.43	32.68289607	-103.47870956	
2,100.00	6.00	2.35	2,099.27	20.91	0.86	613,236.89	804,282.81	32.68292119	-103.47870811	
2,120.54	6.31	2.35	2,119.69	23.11	0.95	613,239.09	804,282.90	32.68292724	-103.47870776	
2,149.02	6.31	2.35	2,148.00	26.23	1.08	613,242.22	804,283.02	32.68293583	-103.47870726	
Salado										
2,200.00	6.31	2.35	2,198.67	31.83	1.30	613,247.81	804,283.25	32.68295120	-103.47870636	
2,300.00	6.31	2.35	2,298.06	42.81	1.76	613,258.79	804,283.70	32.68298137	-103.47870461	
2,400.00	6.31	2.35	2,397.46	53.79	2.21	613,269.77	804,284.15	32.68301153	-103.47870286	
2,500.00	6.31	2.35	2,496.85	64.77	2.66	613,280.75	804,284.60	32.68304169	-103.47870111	
2,600.00	6.31	2.35	2,596.25	75.74	3.11	613,291.73	804,285.05	32.68307185	-103.47869936	
2,700.00	6.31	2.35	2,695.64	86.72	3.56	613,302.71	804,285.50	32.68310202	-103.47869761	
2,800.00	6.31	2.35	2,795.04	97.70	4.01	613,313.68	804,285.95	32.68313218	-103.47869586	
2,900.00	6.31	2.35	2,894.43	108.68	4.46	613,324.66	804,286.40	32.68316234	-103.47869411	
3,000.00	6.31	2.35	2,993.83	119.66	4.91	613,335.64	804,286.85	32.68319251	-103.47869236	
3,100.00	6.31	2.35	3,093.22	130.64	5.36	613,346.62	804,287.30	32.68322267	-103.47869061	
3,175.23	6.31	2.35	3,168.00	138.89	5.69	613,354.88	804,287.64	32.68324536	-103.47868930	
Base Salt										
3,200.00	6.31	2.35	3,192.62	141.61	5.81	613,357.60	804,287.75	32.68325283	-103.47868886	
3,300.00	6.31	2.35	3,292.01	152.59	6.26	613,368.58	804,288.20	32.68328299	-103.47868711	
3,400.00	6.31	2.35	3,391.40	163.57	6.71	613,379.55	804,288.65	32.68331316	-103.47868536	
3,458.95	6.31	2.35	3,450.00	170.04	6.97	613,386.03	804,288.92	32.68333094	-103.47868433	
Yates										
3,500.00	6.31	2.35	3,490.80	174.55	7.16	613,390.53	804,289.10	32.68334332	-103.47868361	
3,600.00	6.31	2.35	3,590.19	185.53	7.61	613,401.51	804,289.55	32.68337348	-103.47868186	
3,700.00	6.31	2.35	3,689.59	196.51	8.06	613,412.49	804,290.00	32.68340364	-103.47868011	
3,800.00	6.31	2.35	3,788.98	207.48	8.51	613,423.47	804,290.45	32.68343381	-103.47867836	
3,890.57	6.31	2.35	3,879.00	217.43	8.91	613,433.41	804,290.86	32.68346112	-103.47867678	
Seven Rivers										
3,900.00	6.31	2.35	3,888.38	218.46	8.96	613,434.45	804,290.90	32.68346397	-103.47867661	



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,000.00	6.31	2.35	3,987.77	229.44	9.41	613,445.42	804,291.35	32.68349413	-103.47867486
4,100.00	6.31	2.35	4,087.17	240.42	9.86	613,456.40	804,291.80	32.68352430	-103.47867311
4,200.00	6.31	2.35	4,186.56	251.40	10.31	613,467.38	804,292.25	32.68355446	-103.47867136
4,300.00	6.31	2.35	4,285.96	262.37	10.76	613,478.36	804,292.70	32.68358462	-103.47866961
4,385.02	6.31	2.35	4,370.46	271.71	11.14	613,487.69	804,293.09	32.68361027	-103.47866813
4,400.00	6.16	2.35	4,385.35	273.33	11.21	613,489.32	804,293.15	32.68361473	-103.47866787
4,500.00	5.16	2.35	4,484.86	283.18	11.61	613,499.17	804,293.56	32.68364180	-103.47866630
4,600.00	4.16	2.35	4,584.53	291.30	11.94	613,507.28	804,293.89	32.68366409	-103.47866500
4,665.62	3.50	2.35	4,650.00	295.68	12.12	613,511.66	804,294.07	32.68367612	-103.47866430
Queen									
4,700.00	3.16	2.35	4,684.33	297.67	12.20	613,513.66	804,294.15	32.68368161	-103.47866399
4,800.00	2.16	2.35	4,784.22	302.31	12.39	613,518.29	804,294.34	32.68369434	-103.47866325
4,900.00	1.16	2.35	4,884.17	305.20	12.51	613,521.18	804,294.46	32.68370228	-103.47866279
5,000.00	0.16	2.35	4,984.17	306.35	12.56	613,522.33	804,294.51	32.68370544	-103.47866260
5,015.83	0.00	0.00	5,000.00	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,100.00	0.00	0.00	5,084.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,200.00	0.00	0.00	5,184.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,300.00	0.00	0.00	5,284.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,400.00	0.00	0.00	5,384.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,500.00	0.00	0.00	5,484.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,600.00	0.00	0.00	5,584.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,700.00	0.00	0.00	5,684.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,800.00	0.00	0.00	5,784.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
5,900.00	0.00	0.00	5,884.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,000.00	0.00	0.00	5,984.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,100.00	0.00	0.00	6,084.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,199.83	0.00	0.00	6,184.00	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
Delaware Mtn Group									
6,200.00	0.00	0.00	6,184.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,300.00	0.00	0.00	6,284.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,400.00	0.00	0.00	6,384.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,500.00	0.00	0.00	6,484.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,600.00	0.00	0.00	6,584.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,700.00	0.00	0.00	6,684.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,800.00	0.00	0.00	6,784.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
6,900.00	0.00	0.00	6,884.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,000.00	0.00	0.00	6,984.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,100.00	0.00	0.00	7,084.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,200.00	0.00	0.00	7,184.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,300.00	0.00	0.00	7,284.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,400.00	0.00	0.00	7,384.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,500.00	0.00	0.00	7,484.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,600.00	0.00	0.00	7,584.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,700.00	0.00	0.00	7,684.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,725.83	0.00	0.00	7,710.00	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
Bone Spring Lime									
7,800.00	0.00	0.00	7,784.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
7,900.00	0.00	0.00	7,884.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
8,000.00	0.00	0.00	7,984.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
8,100.00	0.00	0.00	8,084.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
8,200.00	0.00	0.00	8,184.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
8,300.00	0.00	0.00	8,284.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260
8,400.00	0.00	0.00	8,384.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
8,500.00	0.00	0.00	8,484.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
8,600.00	0.00	0.00	8,584.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
8,700.00	0.00	0.00	8,684.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
8,800.00	0.00	0.00	8,784.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
8,900.00	0.00	0.00	8,884.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
9,000.00	0.00	0.00	8,984.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
9,100.00	0.00	0.00	9,084.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
9,200.00	0.00	0.00	9,184.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
9,300.00	0.00	0.00	9,284.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
9,368.83	0.00	0.00	9,353.00	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
First Bone Spring Sand										
9,400.00	0.00	0.00	9,384.17	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
9,477.87	0.00	0.00	9,462.04	306.37	12.56	613,522.35	804,294.51	32.68370550	-103.47866260	
KOP: 9477.87' MD/ -306.20' VS/9462.04' TVD										
9,500.00	2.21	173.90	9,484.16	305.95	12.61	613,521.93	804,294.55	32.68370433	-103.47866246	
9,550.00	7.21	173.90	9,533.98	301.86	13.04	613,517.85	804,294.99	32.68369310	-103.47866115	
9,600.00	12.21	173.90	9,583.24	293.48	13.94	613,509.46	804,295.89	32.68367003	-103.47865846	
9,630.64	15.28	173.90	9,613.00	286.24	14.71	613,502.22	804,296.66	32.68365012	-103.47865614	
Second Bone Spring Carbonate										
9,650.00	17.21	173.90	9,631.59	280.85	15.29	613,496.84	804,297.23	32.68363531	-103.47865441	
9,700.00	22.21	173.90	9,678.64	264.09	17.08	613,480.07	804,299.03	32.68358919	-103.47864902	
9,750.00	27.21	173.90	9,724.05	243.31	19.30	613,459.30	804,301.25	32.68353204	-103.47864235	
9,800.00	32.21	173.90	9,767.46	218.68	21.93	613,434.66	804,303.88	32.68346427	-103.47863444	
9,850.00	37.21	173.90	9,808.55	190.37	24.96	613,406.36	804,306.90	32.68338642	-103.47862535	
9,900.00	42.21	173.90	9,847.00	158.62	28.35	613,374.60	804,310.30	32.68329907	-103.47861515	
9,950.00	47.21	173.90	9,882.52	123.65	32.09	613,339.63	804,314.04	32.68320288	-103.47860392	
10,000.00	52.21	173.90	9,914.84	85.74	36.14	613,301.72	804,318.09	32.68309859	-103.47859175	
10,008.50	53.06	173.90	9,920.00	79.02	36.86	613,295.01	804,318.80	32.68308012	-103.47858959	
Second Bone Spring Sand										
10,050.00	57.21	173.90	9,943.72	45.17	40.47	613,261.15	804,322.42	32.68298699	-103.47857872	
10,100.00	62.21	173.90	9,968.93	2.25	45.06	613,218.24	804,327.01	32.68286894	-103.47856494	
10,150.00	67.21	173.90	9,990.28	-42.69	49.86	613,173.30	804,331.81	32.68274532	-103.47855051	
10,200.00	72.21	173.90	10,007.61	-89.30	54.85	613,126.68	804,336.79	32.68261709	-103.47853554	
10,250.00	77.21	173.90	10,020.79	-137.25	59.97	613,078.74	804,341.92	32.68248521	-103.47852014	
10,300.00	82.21	173.90	10,029.71	-186.15	65.20	613,029.83	804,347.14	32.68235069	-103.47850444	
10,350.00	87.21	173.90	10,034.32	-235.64	70.48	612,980.34	804,352.43	32.68221456	-103.47848854	
10,377.87	90.00	173.90	10,035.00	-263.34	73.44	612,952.64	804,355.39	32.68213835	-103.47847965	
EOC: 10377.87' MD/ 264.21' VS/10035.00' TVD - HZ Target										
10,383.47	90.00	174.01	10,035.00	-268.91	74.03	612,947.08	804,355.98	32.68212305	-103.47847788	
01-T98(RBSC-503H)										
10,383.69	90.00	174.02	10,035.00	-269.13	74.06	612,946.86	804,356.01	32.68212244	-103.47847781	
100FLL: 10383.69' MD/ 270.00' VS/10035.00' TVD										
10,400.00	90.00	174.34	10,035.00	-285.35	75.71	612,930.63	804,357.66	32.68207781	-103.47847286	
10,500.00	90.00	176.34	10,035.00	-385.02	83.83	612,830.96	804,365.78	32.68180371	-103.47844908	
10,600.00	90.00	178.34	10,035.00	-484.91	88.47	612,731.08	804,370.41	32.68152907	-103.47843663	
10,648.13	90.00	179.31	10,035.00	-533.03	89.45	612,682.95	804,371.40	32.68139679	-103.47843468	
10,700.00	90.00	179.31	10,035.00	-584.89	90.08	612,631.09	804,372.03	32.68125424	-103.47843399	
10,800.00	90.00	179.31	10,035.00	-684.88	91.30	612,531.10	804,373.24	32.68097939	-103.47843267	
10,900.00	90.00	179.31	10,035.00	-784.88	92.51	612,431.11	804,374.46	32.68070454	-103.47843135	
11,000.00	90.00	179.31	10,035.00	-884.87	93.72	612,331.11	804,375.67	32.68042970	-103.47843003	
11,100.00	90.00	179.31	10,035.00	-984.86	94.93	612,231.12	804,376.88	32.68015485	-103.47842870	
11,200.00	90.00	179.31	10,035.00	-1,084.85	96.15	612,131.13	804,378.09	32.67988000	-103.47842738	
11,300.00	90.00	179.31	10,035.00	-1,184.85	97.36	612,031.14	804,379.31	32.67960516	-103.47842606	



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
11,400.00	90.00	179.31	10,035.00	-1,284.84	98.57	611,931.14	804,380.52	32.67933031	-103.47842474	
11,500.00	90.00	179.31	10,035.00	-1,384.83	99.78	611,831.15	804,381.73	32.67905546	-103.47842341	
11,600.00	90.00	179.31	10,035.00	-1,484.83	101.00	611,731.16	804,382.95	32.67878062	-103.47842209	
11,700.00	90.00	179.31	10,035.00	-1,584.82	102.21	611,631.17	804,384.16	32.67850577	-103.47842077	
11,800.00	90.00	179.31	10,035.00	-1,684.81	103.42	611,531.17	804,385.37	32.67823092	-103.47841945	
11,900.00	90.00	179.31	10,035.00	-1,784.80	104.63	611,431.18	804,386.58	32.67795608	-103.47841812	
12,000.00	90.00	179.31	10,035.00	-1,884.80	105.85	611,331.19	804,387.80	32.67768123	-103.47841680	
12,100.00	90.00	179.31	10,035.00	-1,984.79	107.06	611,231.19	804,389.01	32.67740638	-103.47841548	
12,200.00	90.00	179.31	10,035.00	-2,084.78	108.27	611,131.20	804,390.22	32.67713154	-103.47841415	
12,300.00	90.00	179.31	10,035.00	-2,184.77	109.49	611,031.21	804,391.43	32.67685669	-103.47841283	
12,400.00	90.00	179.31	10,035.00	-2,284.77	110.70	610,931.22	804,392.65	32.67658184	-103.47841151	
12,500.00	90.00	179.31	10,035.00	-2,384.76	111.91	610,831.22	804,393.86	32.67630700	-103.47841019	
12,600.00	90.00	179.31	10,035.00	-2,484.75	113.12	610,731.23	804,395.07	32.67603215	-103.47840886	
12,700.00	90.00	179.31	10,035.00	-2,584.74	114.34	610,631.24	804,396.28	32.67575730	-103.47840754	
12,800.00	90.00	179.31	10,035.00	-2,684.74	115.55	610,531.25	804,397.50	32.67548246	-103.47840622	
12,900.00	90.00	179.31	10,035.00	-2,784.73	116.76	610,431.25	804,398.71	32.67520761	-103.47840490	
13,000.00	90.00	179.31	10,035.00	-2,884.72	117.97	610,331.26	804,399.92	32.67493276	-103.47840357	
13,100.00	90.00	179.31	10,035.00	-2,984.72	119.19	610,231.27	804,401.13	32.67465791	-103.47840225	
13,200.00	90.00	179.31	10,035.00	-3,084.71	120.40	610,131.28	804,402.35	32.67438307	-103.47840093	
13,300.00	90.00	179.31	10,035.00	-3,184.70	121.61	610,031.28	804,403.56	32.67410822	-103.47839961	
13,400.00	90.00	179.31	10,035.00	-3,284.69	122.82	609,931.29	804,404.77	32.67383337	-103.47839828	
13,500.00	90.00	179.31	10,035.00	-3,384.69	124.04	609,831.30	804,405.98	32.67355853	-103.47839696	
13,600.00	90.00	179.31	10,035.00	-3,484.68	125.25	609,731.31	804,407.20	32.67328368	-103.47839564	
13,700.00	90.00	179.31	10,035.00	-3,584.67	126.46	609,631.31	804,408.41	32.67300883	-103.47839431	
13,800.00	90.00	179.31	10,035.00	-3,684.66	127.67	609,531.32	804,409.62	32.67273399	-103.47839299	
13,900.00	90.00	179.31	10,035.00	-3,784.66	128.89	609,431.33	804,410.84	32.67245914	-103.47839167	
14,000.00	90.00	179.31	10,035.00	-3,884.65	130.10	609,331.33	804,412.05	32.67218429	-103.47839035	
14,100.00	90.00	179.31	10,035.00	-3,984.64	131.31	609,231.34	804,413.26	32.67190944	-103.47838902	
14,200.00	90.00	179.31	10,035.00	-4,084.63	132.52	609,131.35	804,414.47	32.67163460	-103.47838770	
14,300.00	90.00	179.31	10,035.00	-4,184.63	133.74	609,031.36	804,415.69	32.67135975	-103.47838638	
14,400.00	90.00	179.31	10,035.00	-4,284.62	134.95	608,931.36	804,416.90	32.67108490	-103.47838505	
14,500.00	90.00	179.31	10,035.00	-4,384.61	136.16	608,831.37	804,418.11	32.67081006	-103.47838373	
14,600.00	90.00	179.31	10,035.00	-4,484.60	137.38	608,731.38	804,419.32	32.67053521	-103.47838241	
14,700.00	90.00	179.31	10,035.00	-4,584.60	138.59	608,631.39	804,420.54	32.67026036	-103.47838109	
14,800.00	90.00	179.31	10,035.00	-4,684.59	139.80	608,531.39	804,421.75	32.66998552	-103.47837976	
14,900.00	90.00	179.31	10,035.00	-4,784.58	141.01	608,431.40	804,422.96	32.66971067	-103.47837844	
15,000.00	90.00	179.31	10,035.00	-4,884.58	142.23	608,331.41	804,424.17	32.66943582	-103.47837712	
15,100.00	90.00	179.31	10,035.00	-4,984.57	143.44	608,231.42	804,425.39	32.66916097	-103.47837579	
15,200.00	90.00	179.31	10,035.00	-5,084.56	144.65	608,131.42	804,426.60	32.66888613	-103.47837447	
15,300.00	90.00	179.31	10,035.00	-5,184.55	145.86	608,031.43	804,427.81	32.66861128	-103.47837315	
15,400.00	90.00	179.31	10,035.00	-5,284.55	147.08	607,931.44	804,429.02	32.66833643	-103.47837182	
15,500.00	90.00	179.31	10,035.00	-5,384.54	148.29	607,831.44	804,430.24	32.66806158	-103.47837050	
15,600.00	90.00	179.31	10,035.00	-5,484.53	149.50	607,731.45	804,431.45	32.66778674	-103.47836918	
15,700.00	90.00	179.31	10,035.00	-5,584.52	150.71	607,631.46	804,432.66	32.66751189	-103.47836786	
15,800.00	90.00	179.31	10,035.00	-5,684.52	151.93	607,531.47	804,433.87	32.66723704	-103.47836653	
15,900.00	90.00	179.31	10,035.00	-5,784.51	153.14	607,431.47	804,435.09	32.66696220	-103.47836521	
16,000.00	90.00	179.31	10,035.00	-5,884.50	154.35	607,331.48	804,436.30	32.66668735	-103.47836389	
16,100.00	90.00	179.31	10,035.00	-5,984.49	155.56	607,231.49	804,437.51	32.66641250	-103.47836256	
16,200.00	90.00	179.31	10,035.00	-6,084.49	156.78	607,131.50	804,438.72	32.66613765	-103.47836124	
16,300.00	90.00	179.31	10,035.00	-6,184.48	157.99	607,031.50	804,439.94	32.66586281	-103.47835992	
16,400.00	90.00	179.31	10,035.00	-6,284.47	159.20	606,931.51	804,441.15	32.66558796	-103.47835859	
16,500.00	90.00	179.31	10,035.00	-6,384.47	160.41	606,831.52	804,442.36	32.66531311	-103.47835727	
16,600.00	90.00	179.31	10,035.00	-6,484.46	161.63	606,731.53	804,443.58	32.66503826	-103.47835595	
16,700.00	90.00	179.31	10,035.00	-6,584.45	162.84	606,631.53	804,444.79	32.66476342	-103.47835462	



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,800.00	90.00	179.31	10,035.00	-6,684.44	164.05	606,531.54	804,446.00	32.66448857	-103.47835330
16,900.00	90.00	179.31	10,035.00	-6,784.44	165.27	606,431.55	804,447.21	32.66421372	-103.47835198
17,000.00	90.00	179.31	10,035.00	-6,884.43	166.48	606,331.56	804,448.43	32.66393888	-103.47835066
17,100.00	90.00	179.31	10,035.00	-6,984.42	167.69	606,231.56	804,449.64	32.66366403	-103.47834933
17,200.00	90.00	179.31	10,035.00	-7,084.41	168.90	606,131.57	804,450.85	32.66338918	-103.47834801
17,300.00	90.00	179.31	10,035.00	-7,184.41	170.12	606,031.58	804,452.06	32.66311433	-103.47834669
17,400.00	90.00	179.31	10,035.00	-7,284.40	171.33	605,931.58	804,453.28	32.66283949	-103.47834536
17,500.00	90.00	179.31	10,035.00	-7,384.39	172.54	605,831.59	804,454.49	32.66256464	-103.47834404
17,600.00	90.00	179.31	10,035.00	-7,484.38	173.75	605,731.60	804,455.70	32.66228979	-103.47834272
17,700.00	90.00	179.31	10,035.00	-7,584.38	174.97	605,631.61	804,456.91	32.66201494	-103.47834139
17,800.00	90.00	179.31	10,035.00	-7,684.37	176.18	605,531.61	804,458.13	32.66174010	-103.47834007
17,900.00	90.00	179.31	10,035.00	-7,784.36	177.39	605,431.62	804,459.34	32.66146525	-103.47833875
18,000.00	90.00	179.31	10,035.00	-7,884.36	178.60	605,331.63	804,460.55	32.66119040	-103.47833742
18,100.00	90.00	179.31	10,035.00	-7,984.35	179.82	605,231.64	804,461.76	32.66091555	-103.47833610
18,200.00	90.00	179.31	10,035.00	-8,084.34	181.03	605,131.64	804,462.98	32.66064071	-103.47833478
18,300.00	90.00	179.31	10,035.00	-8,184.33	182.24	605,031.65	804,464.19	32.66036586	-103.47833345
18,400.00	90.00	179.31	10,035.00	-8,284.33	183.45	604,931.66	804,465.40	32.66009101	-103.47833213
18,500.00	90.00	179.31	10,035.00	-8,384.32	184.67	604,831.67	804,466.61	32.65981616	-103.47833081
18,600.00	90.00	179.31	10,035.00	-8,484.31	185.88	604,731.67	804,467.83	32.65954132	-103.47832948
18,700.00	90.00	179.31	10,035.00	-8,584.30	187.09	604,631.68	804,469.04	32.65926647	-103.47832816
18,800.00	90.00	179.31	10,035.00	-8,684.30	188.30	604,531.69	804,470.25	32.65899162	-103.47832684
18,900.00	90.00	179.31	10,035.00	-8,784.29	189.52	604,431.69	804,471.47	32.65871677	-103.47832551
19,000.00	90.00	179.31	10,035.00	-8,884.28	190.73	604,331.70	804,472.68	32.65844192	-103.47832419
19,100.00	90.00	179.31	10,035.00	-8,984.27	191.94	604,231.71	804,473.89	32.65816708	-103.47832287
19,200.00	90.00	179.31	10,035.00	-9,084.27	193.16	604,131.72	804,475.10	32.65789223	-103.47832154
19,300.00	90.00	179.31	10,035.00	-9,184.26	194.37	604,031.72	804,476.32	32.65761738	-103.47832022
19,400.00	90.00	179.31	10,035.00	-9,284.25	195.58	603,931.73	804,477.53	32.65734253	-103.47831890
19,500.00	90.00	179.31	10,035.00	-9,384.24	196.79	603,831.74	804,478.74	32.65706769	-103.47831757
19,600.00	90.00	179.31	10,035.00	-9,484.24	198.01	603,731.75	804,479.95	32.65679284	-103.47831625
19,700.00	90.00	179.31	10,035.00	-9,584.23	199.22	603,631.75	804,481.17	32.65651799	-103.47831493
19,800.00	90.00	179.31	10,035.00	-9,684.22	200.43	603,531.76	804,482.38	32.65624314	-103.47831360
19,900.00	90.00	179.31	10,035.00	-9,784.22	201.64	603,431.77	804,483.59	32.65596830	-103.47831228
20,000.00	90.00	179.31	10,035.00	-9,884.21	202.86	603,331.78	804,484.80	32.65569345	-103.47831095
20,100.00	90.00	179.31	10,035.00	-9,984.20	204.07	603,231.78	804,486.02	32.65541860	-103.47830963
20,200.00	90.00	179.31	10,035.00	-10,084.19	205.28	603,131.79	804,487.23	32.65514375	-103.47830831
20,300.00	90.00	179.31	10,035.00	-10,184.19	206.49	603,031.80	804,488.44	32.65486890	-103.47830698
20,400.00	90.00	179.31	10,035.00	-10,284.18	207.71	602,931.81	804,489.65	32.65459406	-103.47830566
20,500.00	90.00	179.31	10,035.00	-10,384.17	208.92	602,831.81	804,490.87	32.65431921	-103.47830434
20,600.00	90.00	179.31	10,035.00	-10,484.16	210.13	602,731.82	804,492.08	32.65404436	-103.47830301
20,700.00	90.00	179.31	10,035.00	-10,584.16	211.34	602,631.83	804,493.29	32.65376951	-103.47830169
20,782.12	90.00	179.31	10,035.00	-10,666.27	212.34	602,549.71	804,494.29	32.65354381	-103.47830060
TD: 20782.12' MD/ 10668.05' VS/10035.00' TVD - 02-PBHL(RBSC-503H)									



Planning Report - Geographic

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well (A02) Rambo State Com 503H - Slot (A02) Rambo State Com 503H
Company:	Franklin Mountain Energy LLC	TVD Reference:	3855+30 @ 3885.00usft
Project:	PV_Lea County, NM(N83-NME3001)	MD Reference:	3855+30 @ 3885.00usft
Site:	Foxtail_Rambo Mid Pad	North Reference:	Grid
Well:	(A02) Rambo State Com 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	503H		
Design:	APD-Rev01		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
02-PBHL(RBSC-503H)	0.00	0.00	10,035.00	-10,666.27	212.34	602,549.71	804,494.29	32.65354381	-103.47830060
- plan hits target center									
- Point									
01-T98(RBSC-503H)	0.00	0.00	10,035.00	-267.52	87.16	612,948.47	804,369.11	32.68212658	-103.47843517
- plan misses target center by 13.20usft at 10383.47usft MD (10035.00 TVD, -268.91 N, 74.03 E)									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
30.00	30.00	Cenozoic Alluvium (surface)				
1,811.02	1,811.00	Rustler				
2,149.02	2,148.00	Salado				
3,175.23	3,168.00	Base Salt				
3,458.95	3,450.00	Yates				
3,890.57	3,879.00	Seven Rivers				
4,665.62	4,650.00	Queen				
6,199.83	6,184.00	Delaware Mtn Group				
7,725.83	7,710.00	Bone Spring Lime				
9,368.83	9,353.00	First Bone Spring Sand				
9,630.64	9,613.00	Second Bone Spring Carbonate				
10,008.50	9,920.00	Second Bone Spring Sand				
10,377.87	10,035.00	HZ Target				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Comment	
9,477.87	9,462.04	306.37	12.56	KOP: 9477.87' MD/ -306.20' VS/9462.04' TVD	
10,377.87	10,035.00	-263.34	73.44	EOC: 10377.87' MD/ 264.21' VS/10035.00' TVD	
10,383.69	10,035.00	-269.13	74.06	100FLL: 10383.69' MD/ 270.00' VS/10035.00' TVD	
20,782.12	10,035.00	-10,666.27	212.34	TD: 20782.12' MD/ 10668.05' VS/10035.00' TVD	

☐ AMENDED REPORT